From: Sturgis,P
To: [redacted]
Subject: Re: INVITATION: Discussion Session - Gambling Participation and Prevalence Project
Date: 17 July 2023 08:27:42

Unfortunately I cannot make the meeting today [redacted].
Please do keep me updated with developments on this.

Best wishes,

Patrick

On 29 Jun 2023, at 17:10, [redacted]
<[redacted]@gamblingcommission.gov.uk> wrote:

Earlier this month we emailed to provide an update on our project to improve the way we collect data on adult gambling participation and the prevalence of problem gambling amongst adults in Great Britain. The survey we are developing will be known as the Gambling Survey for Great Britain (GSGB).

As a member of our stakeholder engagement groups for the project, we'd like to invite you to an online discussion session taking place on **Monday, 17th July at 11.30-12.30pm.**

The purpose of the meeting will be to provide an update on the project to date, to discuss next steps and to give you an opportunity to ask any questions. It will be hosted by [redacted] and [redacted] from the Gambling Commission, [redacted] from NatCen and [redacted] from the University of Glasgow.

Ahead of the meeting, we thought you might be interested in seeing the latest version of the new Gambling Survey for Great Britain, which builds on the recommendations from the Step 1 and Step 2 experiments we have undertaken over the last 12 months and has recently been tested in the field again to complete our final step of the experimental stage of the project. This is the survey we plan to roll out over the summer.

Also attached are some updated terms of reference for the stakeholder engagement groups.

If you would like to attend the meeting please confirm by email to [redacted]@gamblingcommission.gov.uk.

Yours sincerely

[redacted]

From: [redacted]
To: Sturgis,P
Subject: RE: Development of a Gambling Survey for Great Britain
Date: 14 September 2023 17:59:00

Thanks Patrick, I have sent an invite through for 1.30pm on Friday 22nd. Hope that is convenient

---

From: Sturgis,P[redacted]@lse.ac.uk>
Sent: Thursday, September 14, 2023 1:46 PM
To: [redacted] <[redacted]@gamblingcommission.gov.uk>
Subject: Re: Development of a Gambling Survey for Great Britain

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Yes, I could do 2-4pm Thursday and afternoon Friday. Best,

Patrick

> On 14 Sep 2023, at 13:25, [redacted] <[redacted]@gamblingcommission.gov.uk> wrote:
>
> Hi Patrick
>
> Great news! Do you have any availability next Thursday or Friday afternoon (21/22nd)?
>
> Thanks
>
> [redacted]
>
> ---
>
> **From:** Sturgis,P[redacted]@lse.ac.uk>
> **Sent:** Thursday, September 14, 2023 1:13 PM
> **To:** [redacted]@gamblingcommission.gov.uk>
> **Subject:** Re: Development of a Gambling Survey for Great Britain
>
> **CAUTION:** This email is from an external source - be careful of attachments and links
>
> Hello [redacted] yes I am aware of this work. In fact I had wanted to attend the meetings you have held about it but they have always fallen on times when I am otherwise committed. I'd be happy to speak to you and [redacted] about your plans. Best wishes,
>
> Patrick
>
> > On 14 Sep 2023, at 10:39, [redacted]

<[redacted]@gamblingcommission.gov.uk> wrote:

Dear Patrick

You may be aware that the Gambling Commission is currently developing a new 'Gambling Survey for Great Britain' utilising a push to web methodology which we will be launching early next year.

We have been working on the development of this survey for the last couple of years, alongside NatCen Social Research and [redacted] from the University of Glasgow.

The move to a push to web approach takes us away from the move traditional face to face approach used in Health Surveys or the telephone survey methodology we have previously used at the Commission, but maintains a high quality sampling approach and the ability to provide both online and postal survey completion options. We have been reviewing the work you did with GambleAware a few years ago to assess the impact of methodology on survey estimates regarding the prevalence of problem gambling and wondered if you would be available to have a conversation with myself and my director, [redacted], about the work we are doing and to discuss the possibility of reviewing the approach we are taking?

Kind Regards

[redacted]

<image001.jpg>

[redacted]

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<image002.png>

Project Brief: A review of the Gambling Survey for Great Britain

Introduction

The Gambling Commission has been developing a new approach for collecting data on adult gambling participation and the prevalence of problem gambling in Great Britain. The aim being to develop a single high quality methodology which provides authoritative research into consumer gambling behaviours. The principles for the project, upon which we consulted back in 2020, are:

- to develop a single gold standard population survey for the whole of Great Britain
- to consolidate current surveys into one population survey
- to review and refresh the gambling activities included in the participation questions
- to improve the frequency and turnaround time of the survey data
- to explore more future proof data collection methods
- to pilot a new methodology and subject to a satisfactory pilot, to implement a new methodology [from 2022].

The new survey, called the Gambling Survey for Great Britain (GSGB), has started data collection and will first report in 2024. The survey has been developed in collaboration with NatCen Social Research and the University of Glasgow.

The GSGB uses a push to web methodology. A random sample of households across Great Britain are invited to take part in the survey with up to 2 adults per household allowed to take part. Respondents can choose to complete the survey either online or via a postal survey, with 2 copies of the postal survey being included with the 2nd reminder letter. Respondents receive a £10 voucher for completing the survey.

More information about the development of the GSGB can be found here. Participation and the prevalence of problem gambling (gamblingcommission.gov.uk)

Specification

We would like to commission a review of the GSGB's methodological approach against our objectives. The review should build on the work undertaken for GambleAware in 2021 to understand best practice for estimating gambling participation and prevalence of gambling harms in Great Britain.

The review should:

1) Assess the GSGB methodological approach against best practice considering the context of current survey approaches
2) Analyse the likely impact of the methodological approach on estimates of gambling participation and prevalence of gambling harms
3) Make recommendations for improvement

Timescales

Draft report to be submitted in early January.

Outputs required

We require a written report detailing the findings of the review, with the option for the findings to be presented to the Commission either in person or online.

The report will be structured in the following way:

1. Introduction and context, setting out the recent and current landscape for general population survey designs

2. A brief history of how surveys of gambling behaviours in the UK, focusing on the key estimation challenges

3. A description and critical assessment of the proposed design of the Gambling Survey for Great Britain

4. Recommendations for design improvements and future development options

5. Summary and Conclusion

The report should be independently published by the author. The Gambling Commission will link to the report from its website.

Cost

[redacted] VAT is not applicable for this project.

From: Sturgis,P
To: [redacted]
Cc:
Subject: Re: Review of Gambling Survey for Great Britain
Date: 11 October 2023 16:54:17

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Thanks [redacted] I will have a read through and get back to you if I have any questions. Best,

Patrick

On 10 Oct 2023, at 15:32, [redacted] <[redacted]@gamblingcommission.gov.uk> wrote:

Hi Patrick

This timeline Participation and the prevalence of problem gambling (gamblingcommission.gov.uk) on our website documents everything we have published about the project, from the initial consultation back in 2020, the pilot findings and all of the experimental data. We are also publishing some data from the last step of the experimental stage at the end of November (likely to be the 23rd) which will be useful as that contains the first set of findings from the newly designed questionnaire. A quick summary of what we have done is detailed below:

Dec 2020 – Launched consultation
June 2021 – Published outcome of consultation
October 2021 - Appointed NatCen and the University of Glasgow
Jan 2022 - Undertook pilot survey to test new methodology (n=1,000 respondents)
Sep 2022 - Started 12 month experimental phase.
Step 1 experiment - tested household selection approach and new harms questions. (Findings published April 2023)
Step 2 experiment - tested 3 different versions of a question to ask about gambling participation (Findings published April 2023)
Step 3 experiment - took learnings from Step 1 and Step 2 experiments and put them into practice in Step 3 questionnaire (Findings due to be published Nov 2023)
July 2023 - Started fieldwork for mainstage Gambling Survey for Great Britain, fieldwork is currently underway

If it would be useful to arrange a call to discuss any of the above in more detail then let me know, I could ask NatCen to join as well.

Thanks

[redacted]

From: Sturgis,P <[redacted]@lse.ac.uk>
Sent: Monday, October 9, 2023 4:29 PM
To: [redacted] <[redacted]@gamblingcommission.gov.uk>
Cc: [redacted] <[redacted]@gamblingcommission.gov.uk>
Subject: Re: Review of Gambling Survey for Great Britain

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Excellent, many thanks [redacted] Would you be able to send me links to the key relevant documents if they are in the public domain? Or are they all easily located on the GC website?

Best wishes,

Patrick

On 6 Oct 2023, at 16:55, [redacted] <[redacted]@gamblingcommission.gov.uk> wrote:

Hi Patrick

Please find attached a purchase order for the project.

Looking forward to working with you.

Helen

From: Sturgis,P <[redacted]@lse.ac.uk>
Sent: Thursday, October 5, 2023 10:48 AM
To: [redacted] <[redacted]@gamblingcommission.gov.uk>
Cc: [redacted] <[redacted]@gamblingcommission.gov.uk>
Subject: Re: Review of Gambling Survey for Great Britain

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Hi [redacted] thanks very much for this, I am happy to proceed on this basis. All the best,

Patrick

> On 4 Oct 2023, at 16:54, [redacted]
> <[redacted]@gamblingcommission.gov.uk> wrote:
>
> Hi Patrick
>
> We're really happy with the outline for the report you suggested and would like to commission you to undertake the review of the GSGB as discussed. I have attached the project brief, in which I have incorporated the proposed report outline, costs and timescales.
>
> If you are happy to proceed then I will get the purchase order raised and then just let me know what you need from us in terms of a set up meeting, whether it would be useful to chat with NatCen who have developed the survey etc.
>
> Thanks
>
> [redacted]
>
> ---
>
> **From:** Sturgis,P <[redacted]@lse.ac.uk>
> **Sent:** Friday, September 29, 2023 3:03 PM
> **To:** [redacted] <[redacted]@gamblingcommission.gov.uk>
> **Subject:** Re: Review of Gambling Survey for Great Britain
>
> **CAUTION:** This email is from an external source - be careful of attachments and links
>
> Hi [redacted] no VAT is not chargeable as this would be done in a private capacity not through LSE. Best wishes,
>
> Patrick

On 29 Sep 2023, at 14:50, [redacted]
<[redacted]@gamblingcommission.gov.uk> wrote:

Hi Patrick

Thanks for the email. Whilst I chat this over with [redacted] I just had a very quick question about whether VAT would be charged on top of the costs outlined below?

Hopefully I should be back in touch again early next week.

Thanks

[redacted]

From: Sturgis,P [redacted]@lse.ac.uk>
Sent: Wednesday, September 27, 2023 11:32 AM
To: [redacted] <[redacted]@gamblingcommission.gov.uk>
Subject: Re: Review of Gambling Survey for Great Britain

CAUTION: This email is from an external source - be careful of attachments and links

Hello [redacted]

Yes, it was good to catch up on these developments and I was very pleased to hear that our work has played a part in shaping them. I would be happy to take this work on. In terms of report structure I would suggest something like:

1. Introduction and context, setting out the recent and current landscape for general population survey designs
2. A brief history of how surveys of gambling behaviours in the UK, focusing on the key estimation challenges
3. A description and critical assessment of the proposed design of the Gambling Survey of Great Britain
4. Recommendations for design improvements and future development options
5. Summary and Conclusion

I would be happy to present the findings of my report to the Gambling Commission in person or online.

[redacted] As things stand I can undertake the work during November and December with a drat report submitted in early January.

I hope this meets your requirements, let me know if you have any suggestions for amendments or additions.

Best wishes,

Patrick

On 26 Sep 2023, at 12:36, [redacted] [redacted]@gamblingcommission.gov.uk> wrote:

Hi Patrick

Thank you for your time on Friday.

Following our conversation, I have attached a draft project brief. Thought I would share this in draft form, hopefully it sets out enough information about the required review but let me know if you think there is anything missing that I need to include.

In terms of timescales I have left as TBC for now, but if you can let me know your availability we can look to firm the timescales up.

Once you've had chance to read the brief, happy to discuss. If you could also provide a quote for undertaking the review that would be helpful.

Thanks

[redacted]

<image001.jpg>

[redacted]

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<image002.png>

 <Draft project brief P Sturgis.docx>

Specification

ITT Title: Gambling participation and problem gambling prevalence research

ITT Reference: 21-019

1. About the Gambling Commission

The Gambling Commission exists to safeguard consumers and the wider public by ensuring that gambling is fair and safe. We place consumers at the heart of regulation and maintain the integrity of the gambling industry. Our work is underpinned by two main pieces of legislation; the Gambling Act 2005 which sets the framework for the regulation of gambling in Britain; and the National Lottery etc. Act 1993 which sets out the framework within which we regulate the National Lottery.

Under section 26 of the Gambling Act 2005, the Commission has responsibility for collecting and disseminating information relating to the extent and impact of gambling in Great Britain. In order to do this, we collect gambling participation and problem gambling prevalence data via surveys of adults in Great Britain and the data is published as official statistics – meaning they are produced in accordance with the standards set out by the Government Statistical Service in the Code of Practice for Statistics.

The Commission is ambitious about improving the quality, robustness and timeliness of our statistics and in our 20/21 Business Plan we set out a commitment to review our approach to measuring gambling participation and prevalence amongst adults. In December 2020 we launched a consultation to gather views on proposals to develop a single, high quality methodology to measure participation and prevalence with the advantages of being more efficient, cost effective and timely, helping us to respond more quickly to emerging consumer issues. The results of the consultation were published in June 2021. Given the level of support towards the proposals outlined in the consultation we are now looking to progress to a pilot phase of data collection.

2. Summary of the Requirement

The Commission intends to move to a new method of data collection for adult gambling participation and problem gambling prevalence statistics in Great Britain. We are seeking to appoint a contractor to pilot a new data collection method that meets official statistics requirements in 2021/22 and subject to its successful evaluation, roll out this contract further to 2022/23 and beyond.

3. Duration

The maximum duration of the contract is 5 years as detailed below.

The research will be delivered over three key phases with contract break points between phases 1&2 and phases 2&3. In addition, we reserve the option to extend phase 3 by a further year at our discretion.

Anticipated dates for the entire research programme (contract duration) are given below:

Phase	Phase Description	Research Deliverable	Date	Duration
1	Pilot	Pilot research and evaluation	01 Oct 2021 - 31 Mar 2022	6 months
	Break Point (phase 1)	Review pilot and determine next steps	01 Apr 2022 – 30 Jun 2022	3 months
2	Soft Launch	Experimental statistics data collection and reporting. [1]	01 Jul 2022 - 30 Jun 2023	1 year
	Break Point (phase 2)[2]	Review soft launch and determine next steps		
3	Ongoing Service	Official statistics data collection and reporting	01 Jul 2023 – 30 June 2025	2 years
	Extension Option	Extend phase 3 at the Commission's discretion	01 Jul 2025 - 30 June 2026	1 year
Total Maximum Duration				**5 years**

The contract break points indicated in the table above are significant decision points within the contract, during which time the Commission will review research outputs before determining whether it wishes to proceed to the next phase or not i.e. terminate the contract. During these points, the Commission may, before making such determination, seek support from the supplier to revise and refine the research methodology and embed any lessons learnt. This may entail making amendments to the scope of work and some contract elements in the event the Commission agrees to move to the next phase.

4. Budget

There is a maximum budget of £150,000 ex VAT for the pilot phase of this project (phase 1). This budget is fully inclusive of everything required to deliver the service.

The budget for the following years will be dependent on the scale of the survey that we ultimately roll out. We have asked for costs in the costing schedule for a number of different sample size options to allow for consistency in the evaluation, but this could increase or decrease depending on business need We anticipate the budget for this contract could be

[1] Experimental statistics are a subset of newly developed or innovative official statistics undergoing evaluation. For more information see Experimental Statistics – Office for Statistics Regulation (statisticsauthority.gov.uk)

[2] Break point (phase2) could be enacted at any time during the soft launch period as this phase will be subject to continuous evaluation.

anywhere between £150,000 ex VAT for the pilot phase up to £3 million ex VAT over the maximum duration of five years.

5. Background to Requirement

Under section 26 of the Gambling Act 2005, the Commission holds key responsibility for collecting and disseminating information relating to the extent and impact of gambling. The participation and prevalence statistics we produce are an essential part of our evidence base in order to provide an authoritative voice on the GB gambling market.

Timely, robust measurement of consumer gambling behaviour is critical to identify trends to help prioritise focus (for example take up of new gambling and gambling style products), to measure levels of risk and harm to consumers (via problem gambling screens) and to monitor the impact of policy changes.

Up until now the Commission has utilised a 'combination approach' for adult participation and prevalence research which has developed over time, by deriving these official statistics from different surveys:

- As a section of separate Health Surveys for England, Scotland and Wales[3], conducted approximately every 2 years (subject to availability), which are large scale face to face population surveys that provide our current prevalence measurement.
- A quarterly telephone survey which supplements the Health Surveys by providing a more regular measure of participation and problem gambling prevalence.

Whilst the data collected is robust, we have identified limitations with the current arrangements which impact our ability to further develop our understanding of a fast moving and changing industry. In December 2020 we consulted on six proposals which were all part of a package of work to develop a new single high quality methodology to measure gambling participation and prevalence of problem gambling. The proposals were:

1. To develop a single high quality population survey for the whole of Great Britain
2. To consolidate current surveys into one population survey
3. To review and refresh the gambling activities included in the participation questions
4. To improve the frequency and turnaround time of the survey data
5. To explore more future proof data collection methods
6. To pilot a new methodology and subject to a satisfactory pilot, to implement a new methodology from 2022

In addition to our own consultation, GambleAware have undertaken a Gambling Prevalence Methodology Review. GambleAware are an independent charity commissioning prevention and treatment services across Great Britain and the review they commissioned was intended to help refine its approach to collecting data on the measurement of people seeking treatment for gambling but had similar objectives to our own consultation in terms

[3] The Wales survey (Welsh Problem Gambling Survey) is not an official Health Survey but uses a comparable methodology to England and Scotland.

of understanding the best way to collect data on the prevalence of gambling harms in Great Britain.

The GambleAware review is based on research it commissioned to determine best practices for estimating the level of gambling participation and prevalence of gambling harms in Great Britain. The research analysed eight surveys – including existing Health Survey data and further surveys commissioned by GambleAware – to investigate how differences in survey methodology affect the accuracy of estimates of 'gambling harms'.

Analysis indicated that surveys conducted wholly or primarily online tend to overestimate the prevalence of gambling harms, however given the high and rising cost of in person surveys, the review recommended that future measurement of gambling prevalence and harm should move to online surveying. Further recommendations were made that the move to online data collection should be combined with a programme of methodological testing and development to mitigate selection bias, and that in person surveying should not be ceased completely; probability sampling and face to face interviewing should be used to provide periodic benchmarks.

Based on the high level of agreement with our proposals, and the fact that GambleAware's methodology review supports a move away from in-person towards online surveying, we intend to proceed with plans to pilot a new data collection approach in 2021/22. During the pilot we will also continue with the existing quarterly telephone survey until such a point that the pilot has been evaluated and we are confident to move across to a new data collection approach.

As we progress to phase 2 and 3, the continuous data collection approach must enable a number of criteria:

- The ability to accommodate core questions on gambling participation and prevalence on one survey (currently collected via the separate Health and telephone surveys)
- The ability to access a detailed set of demographics and to retain current questions on broader criteria such as other health conditions, which would be published as part of the results
- To address issues of currency by being able to alter questionnaire content on a quarterly basis, by amending, adding or deleting questions
- Complete data that is representative of the adult GB population via a consistent approach in England, Scotland and Wales with a high quality random probability sampling approach
- Delivery of a large, robust sample size, which can be scaled up or down
- Control over the survey, such that we can ensure it provides an unbroken series of annual statistics
- A fast turnaround from completion of data collection to reporting of the statistics
- The ability to conduct fieldwork regularly and therefore release updated statistics on a quarterly basis
- An approach which is able to withstand similar risks to that currently posed by COVID-19
- An approach which follows relevant research industry standards and enables continued compliance with official statistics production requirements

We envisage that the new approach will involve commissioning a new survey built specifically for the Gambling Commission, however we would also consider adding questions to an existing general population survey if it were able to meet the criteria set out above and our requirements in terms of the methodology and sample size. Ensuring objectivity and transparency in data collection and reporting is of great importance to us. The Commission, and our lead Government Department, DCMS, are designated to produce official statistics and we are bound by the principles in the Code of Practice around Trustworthiness, Quality and Value.

6. Scope of Services

Pilot

Initially we are looking for the successful agency to pilot a new data collection method. We expect this process to complete in six months. We will publish the outcome of the pilot and consider if it is appropriate to proceed to the next phase at that point

As well as piloting a new methodology, one of the proposals in our consultation was to review and refresh the gambling activities included in the current participation questions. This proposal received the highest level of agreement from respondents, with respondents welcoming the opportunity to update the list of gambling activities to reflect current gambling products and consumer behaviour and terminology. There was a strong desire for stakeholders to be involved in the process of designing new participation questions and therefore we would like the successful agency to design and facilitate a stakeholder engagement phase to take place very soon after commissioning. The purpose of the stakeholder engagement will be to facilitate discussion on a new participation question as well as the design of the core pilot questionnaire such as the key health metrics to be included. The Gambling Commission will provide contacts of stakeholders who wish to be involved many of whom responded to the methodology consultation and have already expressed an interest in being involved. Stakeholders could include academics, gambling operators, charities, trade associations or representatives from our advisory bodies such as the Advisory Board for Safer Gambling (ABSG) or the Lived Experience Advisory Panel (LEAP).

Following the stakeholder consultation phase, we wish to cognitively test the new participation question to ensure that any new terminology is clearly understood before launching into fieldwork. We would like the successful agency to outline their approach for cognitive testing. The pilot survey will need to test **both** the existing and newly developed participation questions so suggestions on the best approach for doing this would be welcomed e.g. split sample.

The specification for the pilot is detailed below:

Sample definition	Nat rep sample of GB adults aged 16+.
Sample size	In order to provide as much confidence as possible for comparisons v's existing survey data, the sample size should be as large as possible within the budget constraint. For the pilot we

	do not have minimum requirements for sample size in each nation as we won't be reporting the results separately.
Sample design	The sample must be designed using a random probability sampling approach. A high quality sampling approach is very important to the production of official statistics around gambling participation and prevalence. We are open to the sample design allowing multiple responses from each household to assist in maximising the response rate, we are aware of other surveys e.g. Active Lives Survey that successfully use this approach.
Methodology	In order to ensure the sample is as representative as possible we want to use a mixed methodology approach with push to web being the primary methodology, supplemented by offline methods e.g. telephone, postal, face to face to ensure respondents who do not have access to the internet or do not wish to respond online can continue to take part. This approach is also designed to future proof the survey. Please detail in your proposal the approaches you would use for offline completion and the proportion of respondents you would expect to complete the survey online and offline.
Weighting	Please detail your weighting strategy. This should include general population sample weights and non-response weights.
Questionnaire	The pilot questionnaire should include the following: • Core participation and prevalence questions (See Annex A for a detailed breakdown of the questions to be included) to include; Participation in gambling activities – taken from the GC Quarterly Telephone Survey, Problem Gambling Severity Index (PGSI) - full screener questions and DSM-IV problem gambling screener questions (See questions 90-99 for DSM-IV and 100-108 for PGSI in the Health Survey for England 2018) • The opportunity to test the current participation questions alongside a newly developed activity list. Ideally this would include comparison of the new activity list to both the GC quarterly telephone survey and the Health Survey participation question, but we are mindful of costs and welcome your ideas on how this could be done. • Key metrics from the Health Survey with a non gambling focus to include smoking, alcohol use and the Warwick Edinburgh Mental Well Being Scale or the General Health Questionnaire (GHQ-12). The metrics which are chosen to be included is likely to be a key topic of discussion in the stakeholder engagement phase. • A measure of gambling related harms as referred to in the National Strategy to Reduce Gambling Related Harms 2019-2022.For the past 12 months we have been testing some questions on our online tracker survey to help

	measure the scale and impact of gambling related harms and we would like these questions to be included in the core questionnaire in both the pilot and as we move towards continuous data collection. For the purposes of costing, please allow for two likert scale grid questions with up to 15 statements each, one of which will ask all gamblers about their experience of gambling related harms in the past 12 months as a result of their own gambling and another which will ask all respondents about their experience of gambling related harms as a result of someone else's gambling in the past 12 months. Support in refining the questions on gambling related harms from the successful agency will be welcomed. • Demographics questions - age, gender, ethnicity, work status, household composition, marital status, tenure, social grade, qualifications and a geographical identifier as a minimum In addition to the must have questions above, we would also like to include some 'softer' questions which would be applicable to all respondents such as attitudes towards gambling or gambling advertising. These will be agreed in conjunction with the successful agency. We envisage the pilot questionnaire taking 10 minutes to complete and this will form the 'core' questionnaire when we roll out to phase 2.

Following the pilot we will require a full written technical report to understand the impact of the methodology change and to draw together the conclusions and recommendations from the pilot survey[4].. The report should include analysis which compares the new methodology versus existing data, such as that from the Health Survey for England 2018, the NatCen 2016 Gambling Behaviour in Great Britain report, the most recent quarterly telephone survey and other sources. The report should include technical information on response rates and the success of the online and offline methods and should also detail the success of the newly tested participation question and make recommendations for which participation questions should be tracked in the next phase. This report will be presented to internal stakeholders and advisory groups in order to get approval to move to the next stage of the project (i.e. more permanent data collection) and we would require support from the successful agency with this part of the process, this may include attendance at internal meetings with senior stakeholders e.g. Advisory Board for Safer Gambling, Lived Experience Advisory Panel (LEAP). The report will also be published externally on our website.

[4] Report examples: Opinions and Lifestyle Survey: mixed mode pilot analysis - Office for National Statistics, Community Life Survey - GOV.UK (www.gov.uk)

Continuous data collection

Presuming that the pilot is successful, we will progress to phase 2 of the contract. Initially this will be a 12 month contract in an experimental statistics phase, whilst the statistics continue to undergo evaluation. Following this and presuming again that this phase is successful we will move forward to the continuous data collection of official statistics (phase 3). As the survey rolls onto more continuous data collection we would prefer for the survey to run on a quarterly basis with fieldwork spread as equally as possible over the whole quarter rather than taking place in short bursts as this is better for representation of gambling behaviour throughout the entire calendar year.

The specification for the continuous data collection (phase 2 and 3) is detailed below:

Sample definition	Nat rep sample of GB adults aged 16+, with the ability to report each of the three nations separately.
Sample size	Please provide costs for a sample size of a) 10,000 across the whole of GB with a representative sample at nation level b) 20,000 across the whole of GB with a representative sample at nation level c) Booster surveys in Scotland and Wales to increase the sample size for each nation up to 2,000 per annum to enable us to more confidently report the data by nation. The exact budget we have available for the continuous data collection phases has not yet been decided hence the reason for asking for costs for two different sample sizes. A sample size of 10,000 per annum is likely to be the minimum sample we require. The sample design must be scalable to increase accuracy at lower geographical levels such as Government Office Region if budget allows.
Sample design	Random probability sampling approach. A high quality sampling approach is very important to the production of official statistics around gambling participation and prevalence. We are open to the sample design allowing multiple responses from each household to assist in maximising the response rate, we are aware of other surveys such as the Active Lives Survey that successfully use this approach.
Methodology	In order to ensure the sample is as representative as possible we want to use a mixed methodology approach with push to web being the primary methodology, supplemented by offline methods e.g. telephone, postal, face to face to ensure respondents who do not have access to the internet or do not wish to respond online can continue to take part. This approach is also designed to future proof the survey. Please detail in your proposal the approaches you would use for offline completion and the proportion of

	respondents you would expect to complete the survey online and offline.
Weighting	Please detail your weighting strategy. This should include general population sample weights and non-response weights.
Questionnaire	In the continuous data collection phase, the questionnaire will include both core and modular questions. The core content will remain the same each wave, whereas the modular questions will give flexibility to our survey design by allowing us to include a block of questions which are either asked on a one off basis or on a less frequent basis (e.g. once a year). This approach will give the Commission control over our own survey and ensure our research is dynamic enough to respond to changes in the market or consumer behaviour. Core Content • Gambling participation question - the exact question to be used will depend on the outcome of the participation questions tested in the pilot phase • Problem Gambling Severity Index (PGSI) - full screener questions and DSM-IV problem gambling screener questions. There may be a possibility that we will just use one problem gambling screen in future surveys. • Key metrics from the Health Survey with a non gambling focus to include smoking, alcohol use and the Warwick Edinburgh Mental Well Being Scale or the General Health Questionnaire (GHQ-12). These metrics will have been included in the pilot phase. • Gambling related harms questions as per the pilot phase aimed at measuring experience of gambling related harms as a result of your own gambling and as a result of someone else's gambling. • Demographics questions - age, gender, ethnicity, work status, household composition, marital status, tenure, social grade, qualifications and a geographical identifier as a minimum Modular Content The content of this section of the questionnaire will be flexible and has yet to be decided. Please state your costs for the core content of the questionnaire, which we anticipate to be 10 minutes. For the modular content please provide costs for questions that take an additional 5 minutes to complete taking the total questionnaire length to 15 minutes. The actual length of the questionnaire may vary according to business need for the modular questions and will be

	decided prior to Phase 2. We would expect support from the successful contractor with questionnaire design both in terms of finalising the core content of the questionnaire and agreeing the modular content of the questionnaire on a quarterly basis.
Frequency	Quarterly data collection spread as evenly as possible over the whole quarter rather than taking place in short bursts

7. Contract Deliverables

- Pilot stage evaluation report which draws conclusions from the pilot data collection phase and makes recommendations for the future
- Standard deliverables (for each quarter/wave) to include:
    - Clean SPSS data file including variables which calculate the problem gambler scores and provide variables classifying PGSI, DSM-IV and a combined problem gambler score. See Health Survey for England 2018 as an example, Table 4.
    - Cross tabulations
    - Data and documentation to be prepared according to the UK Data Service guidelines and delivered to the GC ready for upload to the UK Data Service
    - User friendly web reporting tool/dashboard which could also be uploaded to our website (powered through Power BI or your own in house solution). Examples of similar reports include Ofcom's Communications Market Report 2020, the Gambling Commission's Industry Stats published in Power Bi or Sport England's Active Lives Survey.
    - Option for in-depth annual report

8. Key tasks

- Design and facilitate stakeholder engagement to design new gambling participation question and to discuss the content of the pilot questionnaire
- Undertake pilot fieldwork testing new methodology
- Write pilot evaluation report and support the Commission in communicating findings
- Undertake continuous data collection in experimental statistics phase
- Review and evaluate experimental statistics
- Roll out permanent data collection
- Produce quarterly results
- Develop user friendly web reporting tool and update quarterly – optional
- Write annual report - optional

9. Project Management Structure

The Procurement Manager responsible for the successful appointment of a supplier to provide this research is [redacted], [redacted]@gamblingcommission.gov.uk.

Attachment 2

The contract manager, responsible for the day-to-day operation of the service, is [redacted] [redacted] Research and Statistics Manager, [redacted]@gamblingcommission.gov.uk.

10. Management Reporting & Performance Measures

In Phase 1 we will require a set up meeting, regular progress updates throughout the fieldwork and a review meeting following completion of fieldwork to discuss the findings and review the success of the pilot. In Phase 2 and 3 we will require at least an annual review meeting along with regular progress updates. These can be a combination of virtual and face to face meetings (depending on Covid-19 restrictions in place at the time).

We will agree a set of performance measures with the successful agency upon commissioning, an example of what these KPI's may look like is included below;

- The successful agency must follow agreed project timings with respect to set up phases, data collection periods and reporting/provision of data
- The successful agency must provide the Gambling Commission with survey data within an agreed date of completing the fieldwork.
- The successful agency to provide the Gambling Commission with correct sample size/number of variables for each survey as per the agreed specifications
- The successful agency will deliver the project within budget as agreed in the contract. Where additional or unforeseen requirements necessitate further costs, these will be discussed and agreed with the Gambling Commission before additional work is conducted.
- The successful agency to commit to responding to all emails and phone calls within 48 hours of receipt.
- The successful agency and the Gambling Commission to hold annual contract management meetings to address/discuss any contract performance and contract related issues.
- Any changes in personnel of the project team at the successful agency or Gambling Commission will be communicated in advance to minimise project impact.

11. Timeline

Indicative timings for this procurement are given in the table below.

Timeline	
Project Deliverable	**Date**
Issue Tender / Request for Quotation	12 July 2021
Closing Date for tender clarification questions	21 July 2021
Publication of responses to tender clarification questions	28 July 2021
Deadline for submission of tenders	Midday 12 August 2021
Supplier presentations	w/c 6 September
Evaluation process completed	17 September 2021
Award Announcement	20 September 2021
Service Mobilisation	27 September 2021
Service Commencement	1 October 2021

Attachment 2

Annexes

Annex A: Questions for pilot questionnaire

GC Quarterly Telephone Survey Participation Question

ASK ALL - MULTICODE
Q1a- I'm going to read out a list of activities. Please tell me whether you have spent any money on each one in the past four weeks, that is since <textfill date four weeks ago>.. [5]

INTERVIEWER: READ OUT, WAIT FOR EACH ANSWER AND CODE ALL THAT APPLY.

1. Tickets for the National Lottery draws (Lotto, EuroMillions, Thunderball, Hotpicks, Set for Life)
2. Scratch cards
3. Tickets for a charity lottery or other lottery
4. Fruit or slot machines in pubs
5. Fruit or slot machines in gaming centres / arcades
6. Fruit or slot machines in casinos
7. Fruit or slot machines at bingo halls
8. Virtual gaming machines in a bookmaker's to bet on virtual roulette, poker, blackjack or other games
9. Bingo, including bingo played online
10. The football pools
11. Betting on horse races
12. Betting on dog races
13. Betting on football
14. Betting on tennis
15. Betting on other sports events
16. Betting on the outcome of lotteries
17. Betting on political events
18. Betting on other events (e.g. entertainment, topical, current affairs, novelty)
19. Betting on virtual dog or horse races
20. Spread betting *<If needed: Spread betting is where you bet that the outcome of an event will be higher or lower than the bookmaker's prediction. The amount you win or lose depends on how right or wrong you are>*
21. National Lottery Online Instant Wins
22. Online fruit/slot machine style games or online instant win games (excl. National Lottery products)
23. Roulette, poker, cards or dice in a casino or online
24. Playing poker in a pub tournament/league, or at a club
25. Private betting (sweepstakes, bets between friends) or gambling (playing card games for money) with friends, family or colleagues
26. Another form of gambling activity
27. Don't know

[5] We would like to change the format of this question to a grid question, to ask respondents if they have participated in these activities in the last 7 days, 4 weeks, 12 months, longer than 12 months ago or never which will remove the need to ask Q6 below.

28. Refused
29. None of these

ASK ALL WHO SELECT 1 AT Q1a (TICKETS FOR NATIONAL LOTTERY DRAW)
(NQ1b) Q1c You said you have spent money on tickets for National Lottery draws in the past four weeks. Which of the following have you spent money on?
SELECT ALL THAT APPLY

1. Lotto
2. EuroMillions
3. Thunderball
4. Hotpicks
5. Set For Life
6. Don't know/can't remember

ASK ALL WHO CODE 2 AT Q1a
NQ1c You said you have spent money on tickets for scratch cards in the past four weeks. Which of the following have you spent money on?

1. National Lottery branded scratchcards
2. Other lottery scratch cards (e.g. charity lotteries etc.) [6]

ASK ALL WHO CODE 1, 3, 9, 10, 19, 20, 23, OR 26 AT Q1a
Q2 And, in the last 4 weeks, did you spend money on <INSERT ANSWER AT Q1a> in person, online or both?
REPEAT FOR EACH RESPONSE CODED AT Q1

1. In person
2. Online
3. Both

ASK ALL WHO CODE 11, 12, 13, 14, 15, 16, 17 OR 18 AT Q1a
Q3 And in the last 4 weeks, did you spend money < INSERT ANSWER AT Q1> …?
REPEAT FOR EACH RESPONSE CODED AT Q1
READ OUT AND CODE ALL THAT APPLY

1. In person at a bookmakers
2. In person at the venue or track
3. On the phone with a bookmaker
4. Online with a bookmaker
5. Online with a betting exchange *<If needed: A betting exchange is where you lay or back bets against other people using a betting exchange. There is no bookmaker to determine the odds. This is sometimes called 'peer to peer' betting>.*

ASK ALL THOSE WHO CODE 1-26 AT Q1a (SPENT ON ANY FORM OF GAMBLING)
Q4 Thinking about when you spent money on <INSERT ANSWER FROM Q1a> in the last four weeks <INSERT ANSWER FROM Q2 OR Q3 WHERE APPLICABLE>, how often do you spend money on this activity?

[6] Q1b and Q1c are likely to be incorporated into the main participation question in Phase 2, but for the purposes of the pilot will remain as shown

REPEAT FOR EACH RESPONSE CODED AT Q1a AND FOR EACH COMBINATION AT Q2 AND Q3 (i.e. Bingo 'online' and 'in person' at Q2; Betting on horse races 'in person at a book makers' and 'online with a bookmaker' at Q3)
DO NOT PROMPT. PAUSE FOR RESPONDENT ANSWER AND CODE INTO CATEGORIES BELOW

1. Every day/almost every day
2. 4-5 days a week
3. 2-3 days a week
4. About once a week
5. 2-3 days a month
6. About once a month
7. 6-11 times a year
8. 1-5 times a year

ASK IF CODE 28 (NONE OF THESE) AT Q1a
Q6[7]. Although you have not spent money on gambling activities in the past 4 weeks, have you spent money on any of the activities I listed earlier in the past 12 months?
SINGLE CODE

1. Yes
2. No
3. Don't know

[7] This question won't be needed from Phase 2 if we change the format of the participation question to ask about last 7 days, 4 weeks, 12 months etc

DSM-IV

In the last 12 months…

	Every time I lost	Most of the time	Some of the time (less than half the time I lost)	Never
When you gamble, how often do you go back another day to win back money you lost?				
	Very often	Fairly often	Occasionally	Never
How often have you found yourself thinking about gambling (that is reliving past gambling experiences, planning the next time you will lay or thinking of ways to get money to gamble)				
Have you needed to gamble with more and money to get the excitement you are looking for?				
Have you felt restless or irritable when trying to cut down gambling?				
Have you gambled to escape from problems or when you are feeling depressed, anxious or bad about yourself?				
Have you lied to family, or others, to hide the extent of your gambling?				
Have you made unsuccessful attempts to				

Attachment 2

control, cut back or stop gambling?				
Have you committed a crime in order to finance gambling or to pay gambling debts?				
Have you risked or lost an important relationship, job, educational or work opportunity because of gambling?				
Have you asked others to provide money to help with a desperate financial situation caused by gambling?				

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PGSI

In the past 12 months, how often…

	Almost always	Most of the time	Sometimes	Never
..have you bet more than you could really afford to lose?				
..have you needed to gamble with larger amounts of money to get the same excitement?				
..have you gone back to try to win back the money you'd lost?				
..have you borrowed money or sold anything to get money to gamble?				
..have you felt that you might have a problem with gambling?				
..have you felt that gambling has caused you any health problems, including stress or anxiety?				
..have people criticised your betting, or told you that you have a gambling problem, whether or not you thought it is true?				
..have you felt your gambling has caused financial problems for you or your household?				
..have you felt guilt about the				

Attachment 2

way you gamble or what happens when you gamble?				

Attachment 2

Consultation document: gambling participation and problem gambling prevalence research

Overview

In this consultation document, we share our intentions with regard to changing the research methodology we use to collect gambling participation and problem gambling prevalence statistics[1]. We believe that this new approach will set the standard for authoritative research into gambling behaviour.

As part of our duty under the Gambling Act 2005 to advise the government on gambling in Great Britain and provide an effective regulatory function,[2] we collect gambling participation and problem gambling prevalence data via surveys of adults in Great Britain. The data are published as official statistics[3] – meaning they are produced in accordance with the standards set out by the Government Statistical Service in the Code of Practice for Statistics.

The Commission is ambitious about improving the quality, robustness and timeliness of our statistics. We therefore set out a commitment in our 2020/21 Business Plan to 'review our approach to measuring participation and prevalence and publish conclusions'.

We are consulting to ensure all perspectives can be heard before we move to trial a new approach.

The current situation

The Commission currently utilises a 'combination approach' for adult participation and prevalence research which has developed over time, by deriving these official statistics from several different surveys:

- As a section of separate Health Surveys for England, Scotland and Wales[4], conducted approximately every 2 years (subject to availability), which are large scale face to face population surveys that provide our current 'gold standard' prevalence measurement
- A quarterly telephone survey which supplements the Health Surveys by providing a more regular measure of participation and problem gambling prevalence

[1] For consistency, we have sought to use the established language used in this area; for example the 2010 British Gambling Prevalence Survey (BGPS) was introduced as a 'nationally representative survey of participation in gambling and the prevalence of problem gambling in Great Britain'. Both the BGPS and Health Survey series have consistently distinguished between participation and prevalence, with prevalence specifically being used to describe rates of problem gambling.

[2] https://www.legislation.gov.uk/ukpga/2005/19/section/26

[3] https://www.gamblingcommission.gov.uk/news-action-and-statistics/Statistics-and-research/Statistics/About-the-status-of-official-statistics.aspx

[4] The Wales survey (Welsh Problem Gambling Survey) is not an official Health Survey but uses a comparable methodology to England and Scotland. More detail is provided in the 'Background on current participation and prevalence surveys' section.

- A quarterly online survey which supplements the telephone survey with more granular data about online gambling behaviour

Whilst the data collected is robust and authoritative, we have identified a number of limitations with the current arrangements which impact our ability to further develop our understanding of a fast moving and changing industry. These limitations are detailed in this consultation, but at a high level can be summarised as:

- Lack of control over our access to Health Surveys limits our ability to report representative data for the whole of Great Britain
- Different participation and prevalence questions on different surveys generate multiple figures
- Data from the different surveys is not directly comparable due to different methodologies being used
- The infrequency and long turnaround time of the Health Surveys from inception to reporting
- Traditional research methods (on which we rely) are in decline and under greater threat due to Covid-19 impacts

Our intention

We propose to replace the Health Surveys, telephone survey and potentially the online survey with a single, high quality methodology which will be more efficient, cost effective and timely, helping us to respond quickly to emerging consumer issues. We believe that a new approach will enable us to set the standard for authoritative research into gambling.

We have identified a number of criteria a new ‘gold standard’ approach needs to enable:

- The ability to accommodate core questions on gambling participation and prevalence on one survey (currently collected via the separate Health and telephone surveys)
- The ability to access a detailed set of demographics and to retain current questions on broader criteria such as other health conditions, which would be published as part of the results
- To address issues of currency by being able to alter questionnaire content, by amending questions, adding or deleting questions quickly
- Complete data that is representative of the adult GB population via a consistent approach in England, Scotland and Wales with a high quality sampling approach (preferably a random probability design)
- Delivery of a large, robust sample size, which can be scaled up or down according to budget availability
- Control over the survey, such that we can ensure it provides an unbroken series of annual statistics (unlike the current Health Surveys which we are unable to access every year)
- A significantly faster turnaround than the Health Surveys from completion of data collection to reporting of the statistics
- The ability to conduct fieldwork regularly and therefore release updated statistics on a frequent basis

- Preferably, an approach which does not rely on face to face fieldwork and is therefore better able to withstand the threat posed by COVID-19 to this approach
- That the research should be conducted by a highly reputable provider which follows relevant research industry standards and enables continued compliance with official statistics production requirements

We also consider that changing the survey method could result in changes to the data and intend to undertake a pilot survey to assess the impact ahead of any permanent change.

In moving to a new approach, we are open to making use of existing general population surveys, and also to commissioning a new survey that would be built specifically for the Gambling Commission. It is important to emphasise that whatever option is chosen, ensuring objectivity and transparency in data collection and reporting would be of great importance to us. The Commission, and our lead Government Department, DCMS, are designated to produce official statistics and we are bound by the principles in the Code of Practice around Trustworthiness, Quality and Value. In addition to this, we would seek advice on methodology and questionnaire design from independent research experts and would publish full details of our survey design, response rates and quality assurance processes.

This consultation will be of interest to licensees, consumers and consumer interest groups, charities, academics, and organisations with an interest in gambling research and regulation.

Why we are consulting

The aim of this consultation is to gather views on proposals to move towards a new method of data collection for adult gambling participation and problem gambling prevalence statistics in Great Britain.

The consultation forms part of a review we are conducting which aims to identify current and best practice in the fields of measuring gambling participation and prevalence. As part of this review we have spoken with the ONS, DCMS, research experts and our Advisory Board for Safer Gambling (ABSG). We have also reached out to other organisations which produce official or National Statistics based on large-scale national surveys, in particular to understand changes they have made to their data collection, including the benefits and challenges they have faced.

Under section 26 of the Gambling Act 2005, the Commission holds key responsibility for collecting and disseminating information relating to the extent and impact of gambling. The participation and prevalence statistics we produce are an essential part of our evidence base in order to provide an authoritative voice on the GB gambling market.

Timely, robust measurement of consumer gambling behaviour is critical to identify trends to help prioritise focus (for example take up of new gambling and gambling

style products), to measure levels of risk and harm to consumers (via problem gambling screens) and to monitor the impact of policy changes.

Our proposals in this consultation outline our intention to establish a methodology to better inform us of the impact of policy changes and provide an ongoing foundation for evidence-based decision-making.

The published data derived from the Health Surveys, quarterly telephone survey and quarterly online survey are all classed as official statistics and are subject to the Code of Practice for Statistics as set out by the UK Statistics Authority (UKSA). Despite the increasing use of administrative data in recent years, the UKSA's five year strategy (2020-2025) recognises the continuing and critical role of social surveys (such as our participation and prevalence surveys) to provide insights on topics that cannot be understood through administrative systems alone.

The statistics from these surveys are published on our website and inform the debate about market trends, changing consumer gambling behaviour and the risks of potential harms to consumers. The statistics are used by the Gambling Commission's Board, Executive Group and at all levels within the organisation.

More widely, our survey statistics are used by government, licensees, consumers and consumer interest groups, charities, academics, and organisations with an interest in gambling regulation, helping to inform policy debate. Therefore, the quality, clarity and timeliness of these statistics is of critical importance to ensure that policy debates are based on the strongest and most up to date evidence.

Our review of potential methodologies has identified the potential to adopt a more regular, flexible, streamlined and value for money data collection approach than currently afforded by the Health Surveys. We believe this can be achieved while retaining a high quality and trustworthy approach which will continue to allow users to have a high level of confidence in our official statistics. In transitioning to a new methodology, there is also the opportunity to integrate content from, or replace the quarterly telephone and online trackers.

We believe adopting a new methodology to collect participation and prevalence data, while retaining official statistics status, will increase public trust and confidence in our statistics. Part of this is to further develop our commitment to the three pillars of the Code of Practice for Statistics, around trustworthiness (confidence in the people and organisations that produce statistics and data), quality (data and methods that produce assured statistics) and value (statistics that support society's needs for information).

Scope

The specific focus of this consultation is to gather views on proposals to adopt a new methodology for our regular participation and prevalence research, to provide nationally representative data for the adult population of Great Britain.

There are a number of important areas which are linked to the methodology review but are considered out of scope of this consultation:

Gambling Related Harms

A stated aim of the National Strategy to Reduce Gambling Harms, is to identify a robust means of measuring harm.

This is an important step forward as problem gambling is a measure of whether an individual is experiencing issues whereas harms take into account the scale and impact of the issues both on the individual and associated others.

The Gambling Commission published a framework for measuring gambling-related harms in July 2018, and an equivalent framework for harms experienced by children and young people in May 2019. They outline how gambling harms can manifest and have increased visibility of the range of harms that can be experienced.

The long-term goal, as identified in our National Strategy, is to establish an interdisciplinary programme of work measuring harms and determine the social cost of gambling, as well as the impact that it has on health and wellbeing.[5]

In the meantime, the Commission is committed to doing what it can to build and contribute to the growing evidence base on gambling-related harms. It has begun a pilot of new survey questions on gambling-related harms to develop a better understanding the different ways that people can experience harm as a result of their own or someone else's gambling. As this is currently in progress, the specific means of measuring harm via survey questions is not within the scope of this consultation. However, we understand the importance of this work and hope that it will result in a set of questions that can be added to our core survey/s as a way of measuring the extent to which gambling-related harms are experienced.

Longitudinal research

There is evidence that movement in and out of experiencing issues with gambling can be cyclical over the long term. It is important to be able to understand the incidence rate of problem gambling (new cases arising) and the number of people who relapse. This, coupled with the importance of understanding the pathway to individuals experiencing harms and how changes in their lives contribute to this, can only be fully understood through longitudinal research. We have therefore identified

[5] A key dataset to support measurement of harms is the NHS Digital "Adult Psychiatric Morbidity Study" (APMS), which runs every seven years, and a number of organisations across the National Strategy have strongly recommended gambling questions being included in the 2021/22 fieldwork.

the establishment of a longitudinal study as a vital component of a wider programme of work[6] required to measure the impact of gambling-related harms on society.

In 2019 we commissioned NatCen to conduct a scoping review and recommend potential approaches to setting up a longitudinal survey[7], and we are considering next steps.

It does not form part of the scope for this consultation on participation and prevalence as the research aims for the two projects are not sufficiently aligned to allow this to be taken forward as one project.

Reaching specific populations

In addition, we know that one of the issues with the Health Survey approach to-date has been there are certain groups who are not captured in the sample as it is drawn from residential addresses.

This means that groups such as homeless people, students in halls and armed service personnel residing in barracks are not included in the surveys. Whilst these groups form small numbers in the overall population there has been a suggestion that they could have higher rates of problem gambling than the general population.

Whilst we understand the importance of gaining data from these groups, we do not anticipate that this research will form part of population level measurement of participation and prevalence, aside from where they are naturally included in the sample under the new approach. We will explore separately if research for these groups can be delivered by external partners.

Similarly, rates of participation and prevalence for young people (aged 11-16) are gathered through an Ipsos MORI omnibus in schools and we anticipate maintaining this vehicle as our approach for understanding behaviour and risks in this group.

Access to research datasets

A further area linked to, but outside the scope of the consultation is the intention, outlined in our National Strategy, to work towards the creation of a central data repository that would enable access to anonymous datasets for research. We are interested in making the data from a new participation and prevalence survey available, which would align with this aim by helping to accelerate the pace of research and open up access to a broader range of researchers.

[6] https://www.reducinggamblingharms.org/asset-library/Implementation-plan-June-2020/Next-Steps-on-measuring-harms-impact-success.pdf

[7] http://www.reducinggamblingharms.org/asset-library/Longitudinal-Gambling-Scoping-Report.docx

Background on current participation and prevalence surveys

To assess our proposals for methodology change, it is first necessary to understand the scope and respective roles of our current surveys. In this section, we provide background about the Health Surveys, telephone and online surveys and our view on how these compare with best practice. A more detailed discussion of best practice in research methodology and further background on our existing surveys can be found in the Annexes.

The Health Surveys

Background

The Commission's main measures of problem, moderate risk and low risk gambling rates among adults aged 16 and over are via the Health Survey for England (HSE), Scottish Health Survey (SHeS) and Welsh Problem Gambling Survey.

The Health Surveys were identified as the most suitable vehicles for the inclusion of gambling content following the cessation of the British Gambling Prevalence Survey (BGPS) series in 2010. The Health Surveys were identified via an internal review of large-scale survey vehicles that were available at the time, which considered their methodologies, coverage and potential for including content on gambling. It was felt at that time that the Health Surveys provided a regular, robust vehicle and would bring benefits of measuring gambling participation and prevalence in the context of other social activities and comorbidities. The internal review was followed by a public consultation.

The table below shows the years in which we have run gambling content on the Health Surveys and the comparable Wales survey[8] and the associated data and reports which have been published. Where possible, data from the HSE, SHeS and the Welsh Problem Gambling Survey are combined to produce a Great Britain report on gambling behaviours in England, Scotland and Wales. Unfortunately, it has not always been possible to conduct the surveys in England, Scotland and Wales in the same years[9], and therefore combined Great Britain reports have so far been published only for 2015 and 2016.

[8] The irregular pattern by year of the gambling questions being accommodated is due to a combination of factors including availability of budget and space on the surveys

[9] The main reason why we have not been able to cover all of Great Britain in some years is that, despite the Scottish Government electing to include our content in the SHeS every year from 2012-2017, we have been unable to secure space in the survey in recent years.

Year	Countries covered	Publications
2012	England and Scotland	Combined report published in June 2014.
2015	England, Scotland and Wales	Scotland report and Wales report published in October 2016. Combined Great Britain report[10] published in August 2017
2016	England, Scotland and Wales	Scotland report and Wales report published in November 2017. England report published in April 2018. Combined Great Britain report published in September 2018.
2017	Scotland	Scotland report published in December 2018
2018	England and Wales	England data published (by NHS Digital) in December 2019. Wales data published in August 2020.
2020	England	None – fieldwork curtailed in March 2020

Since HSE fieldwork was curtailed in March 2020 due to Covid-19, we are intending to collect gambling data on the 2021 survey instead. We are also seeking to secure space on the Scotland and Wales surveys in 2021. We expect the data for these surveys to be available by the end of 2022 at the earliest, but at this stage it could be compared against data from a new approach to enable further analysis of the impact of introducing a new survey, its reliability and robustness.

The Health Surveys at a glance

The table below provides a summary of the Health Surveys, however more detail can be found in Annex 2.

[10] The combined GB reports for 2015 and 2016, and the combined England and Scotland report for 2012, have been authored by NatCen (commissioned by the Gambling Commission)

Survey	Health Survey England	Scottish Health Survey	National Survey for Wales (NSW)[11]
Provider	NHS Digital	Scottish Government	Welsh Government
Method	In-home, face to face interviewing. However, the gambling content is self-completed by respondents	In-home, face to face interviewing. However, the gambling content is self-completed by respondents	In-home, face to face interviewing. However, the gambling content is self-completed by respondents
Sampling approach	Random probability sample	Random probability sample	Random probability sample
Sample definition	Adults aged 16+	Adults aged 16+	Adults aged 16+
Sample size	7,100 approx	3,200 approx	Variable, estimated at 2,000+
Problem gambling screens used	DSM-IV and PGSI	DSM-IV and PGSI	PGSI
Survey frequency	HSE is annual, but gambling content has run in 2012, 2015, 2016, 2018	SHeS is annual, but gambling content ran in each year from 2012-2017 (has not run since)	NSW is annual. Gambling content was planned for 2020/21 before being cut short by COVID-19.
Data collection period	Continuous through January-December	Continuous through January-December	Fieldwork runs over 12 months from April-March
Core data available	Past 12 month participation, problem gambling, demographics, lifestyle, other health questions	Past 12 month participation, problem gambling, demographics, lifestyle, other health questions	Past 12 month participation, problem gambling, demographics, lifestyle, other health questions

[11] The National Survey for Wales is the current vehicle used to ask similar questions in Wales to those included in the Health Surveys for England and Scotland (replacing a previous omnibus survey run by Beaufort Research in Wales). Questions were included on the NSW in 2020 but face to face fieldwork was cut short due to COVID-19 and the methodology was changed to a telephone survey. With the change of method, the gambling questions were removed as they were not considered suitable for a telephone approach by the Welsh Government.

View on best practice

Historically, face-to-face interviews, conducted by interviewers in respondents' homes, have provided the best means of delivering random probability samples[12]. Such surveys, of which the HSE and SHeS are examples, use the Postcode Address File (PAF; a list of every point in the UK to which mail is delivered) to randomly select addresses which gives each household an equal likelihood of being selected.

Random probability sampling is generally regarded as the best survey method to achieve accurate population estimates[13]. A recent summary of existing research demonstrates that probability samples provide consistently more accurate estimates than non-probability samples (even with declining response rates), over many topics including health, consumption behaviour and sexual behaviour and attitudes[14]

This is a key point of difference from telephone and online surveys, which rely on respondents having phone and/or internet access. Face-to-face interviews are more effective at reaching 'hard-to-get' population groups compared to other modes[15], and traditionally have had higher response rates, which mean that the risk of non-response bias is overall lower.

We consider that the Health Surveys use a high quality approach and that the use of random probability sampling should preferably be continued to provide the most accurate possible participation and prevalence data. The Health Surveys also provide a wider range of contextual data that are not just gambling focused and help to ensure gambling is considered by other bodies who use this data as an important variable.

However, a variety of challenges exist with the Health Survey approach – for instance, issues around timing and flexibility - which are outlined in the Proposals section. We assert that it is possible to address the existing challenges with the Health Survey approach while retaining the 'gold standard' random probability sampling element, and core contextual questions on comorbidities, as part of an alternative survey.

[12] Random probability samples satisfy two criteria: 1) that every unit in the population has a chance of being selected for the sample, and 2) that the probability of selection for any unit in the population is either known or could be populated. Retrieved from: https://www.ipsos.com/en/ipsos-encyclopedia-random-probability-sampling

[13] Sturgis, P. (2020). An assessment of the accuracy of survey estimates of the prevalence of problem gambling in the United Kingdom. Retrieved from: https://www.begambleaware.org/sites/default/files/2020-12/an-assessment-of-the-accuracy-of-survey-estimates-of-the-prevalence-of-problem-gambling-in-the-united-kingdom.pdf

[14] Cornesse et al. (2020). A Review of Conceptual Approaches and Empirical Evidence on Probability and Nonprobability Sample Survey Research. *Journal of Survey Statistics and Methodology. 8*(1). https://doi.org/10.1093/jssam/smz041

[15] Smith, Nicolaas & Sturgis (2014). Options for carrying out large-scale surveys in Wales. Retrieved from: https://gov.wales/sites/default/files/statistics-and-research/2019-02/options-carrying-out-large-scale-surveys-wales-2014.pdf

Quarterly telephone and online surveys

Background

The **quarterly telephone survey** is currently our main measure of gambling participation (in the last four weeks) and is intended to supplement the 'gold standard', but less frequent, prevalence measurement of the Health Surveys with more frequent data collection. We have run a telephone survey focused on gambling participation since 2008 and the survey in its current form has been running since 2011.

The **quarterly online survey** has been run by the Commission since March 2015 with the aim of gaining a more detailed understanding of how consumers engage with online gambling products than is possible via the Health Surveys and quarterly telephone survey due to restricted space on those studies and cost considerations.

The telephone and online tracking surveys at a glance

The table below provides a summary of the quarterly telephone and online surveys, however more detail can be found in Annex 2.

Survey	**Quarterly telephone survey**	**Quarterly online survey**
Provider	Yonder[16]	Yonder
Method	Standalone telephone (CATI) survey	Online omnibus survey using Yonder's online panel
Sampling approach	RDD sampling[17], with quotas on age, gender, social grade and region	Quota sampling – quotas set on age, gender, social grade and region
Sample definition	Adults aged 16+	Adults aged 18+
Sample size	c. 1,000 per quarter – reported based on c. 4,000 over the last 4 quarters	c. 2,000 per quarter – reported based on c. 8,000 over the last 4 quarters

[16] Formerly known as Populus before changing their name in October 2020

[17] Random-digit dialling (RDD) is a method of probability sampling that involves using randomly generated numbers for a telephone survey. It is distinguished from other telephone sampling methods because it uses the sample from the frame of telephone numbers, instead of relying on telephone directories or other telephone lists which might exclude certain types of people. However, RDD samples typically include a high proportion of non-working and non-residential numbers.

Problem gambling screens used	Short-form PGSI	PGSI – for internal use only[18]
Survey frequency	Quarterly (waves typically conducted in March, June, September and December)	Quarterly (waves typically conducted in March, June, September and December)
Data collection period	4 weeks per quarter	One weekend per quarter
Core data released as official statistics	Past 4 week participation, mode of play, problem gambling, demographics, perceptions of trust and levels of crime in gambling	Mode of play, device usage, location of play, number of accounts, in-play betting participation, use of gambling management tools, awareness of advertisements and social media etc.

Telephone and online survey data is released via an annual gambling participation report each February. In addition, a more limited set of telephone survey data on gambling participation is released quarterly. All telephone and online survey data is reported on an aggregate 12-month basis to counteract seasonal differences in gambling behaviour.

View on best practice: telephone survey

Telephone interviewing is a widespread method of running a nationally representative survey of a cross-section of the population. We consider that our quarterly telephone survey currently fulfils an important role in providing more regular participation and prevalence data than the Health Surveys, and in covering the whole of Great Britain. The methodology is relatively cost-effective, has proven resilient to Covid-19 and the prevalence data collected compares reasonably closely to the Health Survey figures.

However, we recognise that there are a range of criticisms of telephone surveys, including:

- RDD telephone samples are not true random probability samples as it is unknown whether all numbers have an equal chance of being selected. Additionally, as in the case of our quarterly telephone survey, quotas are often applied to control the profile of the achieved sample.
- The proportion of mobile-only households is increasing, hence increasing the level of bias in estimates unless mobile numbers can be included. It has been argued that telephone surveys are no longer considered viable for high quality random probability surveys, due to the difficulties in drawing rigorous samples that remain comparable over time.

[18] Online panel-based surveys are known to inflate rates of problem gambling compared to other methods. Therefore, the PGSI data gathered on the online survey is used only for internal analysis and is not considered appropriate for external publication.

- Research has shown that compared to face-to-face interviewees, telephone survey respondents are more likely to give what they consider to be 'satisfactory' answers rather than the full, true picture (known as 'satisficing'), tend to be less engaged, and are more likely to show dissatisfaction with survey length (even when telephone interviews are shorter).
- Telephone surveys may also not be suitable for data collection for more sensitive topics as respondents may not be willing to reveal personal details or information regarded as less socially acceptable to an interviewer.

The telephone survey currently plays an important supplementary role to the Health Surveys. However, we have identified alternative approaches which would enable us to consolidate the Health Surveys and telephone surveys by collecting the same information via a consistent methodology.

View on best practice: online survey

The online tracker plays a further supporting role in our current combination of approaches and is particularly useful for understanding the behaviour of gamblers who are more engaged online. The online survey is not a source of official statistics on participation or prevalence but offers the greatest questionnaire flexibility at the lowest cost relative to the Health Surveys and telephone survey.

Over the past few years, we have seen a rise in use of online surveys in the UK, most of which are based on opt-in panels, widely used for market research and opinion polling, but also social research[19]. Despite this growth, we recognise a number of limitations with online panel-based data collection:

- Mode of interview – the online methodology means that the sample responding to the survey are more likely to be engaged online, thus skewing the data. This is likely to be especially true for older age groups where high online engagement is less ubiquitous than amongst younger people. We therefore do not use the online survey to report overall rates of engagement in online gambling or to report rates of problem gambling.
- Panel interviews – the surveys are conducted with members of the Yonder online panel. These individuals have signed up to receive surveys on a regular basis. It is natural that people with certain characteristics are more likely to sign up to be members of a panel and therefore the surveys may not be entirely representative of the population.

Overall, we consider that an online panel-based survey should not be used as the primary source of participation and prevalence statistics due to the impact of sample and mode effects on the data. Opt-in panel surveys are generally considered a less

[19] Lugtig (2013). Cited in Nicolaas, G., Calderwood, L., Lynn, P. & Roberts, C (2014). Web surveys for the general population: How, why and when? http://eprints.ncrm.ac.uk/3309/3/GenPopWeb.pdf

robust means of generating accurate population estimates compared to probability samples.

As part of our review, we have identified the increasing use of ‘push to web’ methods for surveys, whereby respondents are recruited offline (such as via another survey, or through the post), and then encouraged to go online and complete a web questionnaire. Push-to-web methods are used for online surveys that require a random probability sample, amongst sampling frames that do not include email addresses. We note that several major surveys that produce official statistics have updated their data collection approach in recent years and delivered considerable benefits as a result.

We recommend that a ‘push to web’ and/or mixed mode approach should be explored further and piloted as a potential means of replacing our current participation and prevalence surveys. We believe that such approaches would satisfy the requirement for a gold standard sampling approach while also delivering greater cost-effectiveness, timeliness and flexibility.

Proposals

We recognise that our current set of surveys have a range of strengths and limitations. Taken as a whole, the current 'combination' approach of three surveys provides good breadth of coverage of key metrics and maintaining this mix for several years has allowed us to report data and trends in a consistent manner over time.

Actions could be taken to maintain and enhance the combination approach. For example, sample sizes could be increased to provide more robust data (if budget allowed) and questionnaire content could be reviewed and made more consistent. However, such changes would not address many of the limitations of the current approach. These are outlined below, together with our proposed actions.

Lack of control over the inclusion of our questions on the Health Surveys limits our ability to report representative data for the whole of Great Britain

The issue:

Due to the fact the current Health Survey approach relies on separate NHS/government-led surveys in England, Scotland and Wales, it has often not been possible for the Commission to secure space for our participation and prevalence questions on the surveys for all three nations in the same years. Consequently, it has so far only been possible to release a combined 'Gambling behaviour in Great Britain' report for 2015 and 2016. In 2020 we are therefore relying on data from four years ago (2016) for the most recent GB-representative Health Survey statistics on problem and at-risk gambling. This inability to publish complete, consistent data that represents the full geographical area that we are responsible for is one of the key issues that we are seeking to address through the methodology review.

Proposal:

To replace our current usage of the separate Health Surveys for England and Scotland and equivalent survey in Wales with a new 'gold standard' population survey which covers the whole of Great Britain via a large and robust sample.

We will consider both existing general population surveys that we can access, and new surveys, which would be designed for this purpose, as a means of meeting this objective.

Rationale:

We will be able to report complete, consistent data that covers the whole of Great Britain via a new survey that reflects best practice and allows comparisons between the nations to be made with confidence.

Consolidating control over the survey for England, Scotland and Wales will also strengthen our ability to change, add or remove questions in a consistent way. As a

result, we will be better placed to respond to emerging policy issues, government interest, stakeholder concerns, changes in research funding or specific events.

In an ideal world, if budget allowed, we would seek to generate a very large sample size which would not only provide robust national data but also provide more granular geographic data and facilitate comparisons between the widest possible range of demographic cohorts.

Questions:

- Do you agree with this proposal?
- How important is it to adopt a survey approach which covers all of Great Britain (England, Scotland, Wales) using a consistent approach?

Data from the different surveys is not directly comparable due to mode effects

The issue:

For the Health Surveys alone, there are currently difficulties associated with combining data from three separate surveys for England, Scotland and Wales. The use of a different survey in Wales means that for Wales we do not have access to the broader health measures available via the HSE and SHeS and, from 2020, we also do not have access to DSM-IV problem gambling screen data.

The problem of comparability is exacerbated when the quarterly telephone and online surveys are also considered. Data collected via the quarterly telephone and online surveys (while helpful in supplementing the Health Survey data with more timely statistics) is not directly comparable due to different survey methodologies.

Proposal:

To reduce the number of surveys the Commission currently uses to produce official statistics on participation and prevalence to provide a single set of trusted metrics.

As part of this, to absorb content from our existing surveys into the new 'gold standard' population survey.

Rationale:

Consolidating our surveys will address the issue of multiple data points by using a single methodology (removing the issue of different mode effects) and the ability we will have to apply a single set of participation and prevalence questions.[20]

[20] The National Survey for Wales provides a useful example of consolidating multiple surveys. Five different surveys; The National Survey, Welsh Health Survey, Active Adults Survey, Arts in Wales Survey and the Welsh Outdoor Recreation Survey were brought together into one single 'National Survey for Wales' following a review of options in 2014. See: https://gov.wales/sites/default/files/statistics-and-research/2019-02/national-survey-for-wales-technical-report-2016-17.pdf

Questions:

- Do you agree with this proposal?
- To what extent is the current reporting of data via different surveys an issue?

Different participation questions on different surveys generate multiple figures

The issue:

A further consideration which affects comparability is the current inconsistent application of participation questions. Currently, participation statistics are published from both the Health Surveys (based on past 12 month participation) and the telephone survey (based on the past 4 weeks). Further, the surveys incorporate different lists of gambling activities.

The activity list used in the Health Surveys was originally developed for use in the 2012 survey. As such, it does not sufficiently reflect shifts towards online gambling in recent years, and it also provides limited granularity in terms of National Lottery games. Lack of available budget and a desire to retain comparability with previous data sets are the main reasons why the activity list has not been altered in subsequent years.

There is a risk of confusion and misuse of statistics arising from multiple figures, leaving the Commission open to challenge and posing a threat to the credibility of our research. Some questions are duplicated (or questions on similar topics are asked in slightly different ways) – creating a need for the Commission to manage multiple data points (different 'versions of the truth') with associated risks of confusion or misuse of statistics

Proposal:

Via a single preferred methodology, to gather more granular data on gambling participation and frequency.

Also, to review and refresh the list of gambling activities included in the survey so that it better reflects the current diversity of gambling products and better facilitates analysis of problem gambling prevalence at a product level.

Rationale:

The production of a single authoritative set of participation statistics will provide greater clarity to the use of this data and to policy debates. We believe it will increase user trust in the statistics who will have greater confidence that data is not contradictory and that the way we classify gambling participation accurately reflects the current product mix, both online and offline.

Questions:

- Do you agree with this proposal?
- What other factors should be considered in developing participation questions and data to meet the needs of users?

The infrequency and long turnaround time of the Health Surveys from inception to reporting

The issue:

While we consider the Health Surveys to provide robust measurement of past 12 month gambling participation and problem gambling prevalence, the length of time between the surveys means that they cannot monitor shorter-term changes, and only measure changes approximately every two years (dependent on when we can secure space). Furthermore, the survey content cannot be adapted quickly to reflect new gambling products, and data from each survey is unavoidably out of date before the next survey is published.

The slow turnaround of the surveys from inception to reporting is also an issue. Using 2016 fieldwork as an example, survey content was signed off in Autumn 2015, data collection ran from January to December 2016, and the combined GB report was published in September 2018 – approximately two years after the survey's inception. This creates a major risk that emerging trends that may require action, will not be identified in a sufficiently timely manner. The quarterly telephone survey fills this gap to some extent albeit via a less robust methodology and problem gambling prevalence measure (the short-form PGSI screen).

Proposal:

To explore surveys (including existing external surveys) which we would be able to access more frequently than the Health Surveys and which have a shorter turnaround time.

To move towards at least annual publication of 'gold standard' participation and prevalence metrics.

Rationale:

Running more regular 'gold standard' surveys and reducing the time lag from data collection to reporting will help meet best practice for official statistics and enable evidence-based discussion and action to take place based on the most up to date and high quality data

Questions:

- Do you agree with this proposal?
- What is an appropriate frequency for reporting? For example, would annual reporting, supplemented by shorter quarterly updates, be suitable?
- How important is it to release data more quickly after its collection and do you have any views on what sort of timescale would be acceptable/preferable?

Traditional research methods, already in decline are now under greater threat due to Covid-19

The issue:

It is important to refresh methods to keep pace with evolving best practice for population surveys. Further, reliance on face to face methods carries some risk given the impact of Covid-19 and potential future pandemics and government measures imposed on society

Proposal:

To explore more 'future proof' methodologies for ongoing measurement which will be able to withstand threats posed to more 'traditional' research approaches. These methods include online, 'push to web' and mixed-mode surveys. Therefore an alternative approach could involve recruiting respondents via postal invitations (with addresses selected on a random probability basis), and conducting the survey either fully online, or online supplemented with other data collection methods such as postal returns or telephone interviews.

Examples of other national population studies which have changed methodology in order to evolve and future proof the research include Sport England's Active Lives Survey[21], the Community Life Survey[22] commissioned by the Cabinet Office and Natural England's People and Nature Survey[23]. All three of these surveys have moved from more traditional telephone or face to face methodologies to an online or mixed methodology approach.

Rationale:

Alternative methodologies exist which would be better able to withstand the threats posed by Covid-19 or future pandemics to interviewer-led in-home surveys. By continuing with the Health Surveys, there would be a risk that fieldwork may be adversely affected or may have to stop altogether, as has been the case in the HSE 2020.

Coverage of the population may also increase under a mixed-mode approach compared with a single mode survey and bias should decrease in the combined estimates. A survey which has as wide a coverage of the population as possible should minimise bias.

Questions:

- Would you support the use of an alternative, non-interviewer-led methodology of the type proposed? (noting that this would be subject to rigorous testing as outlined in the proposal below)

Changing the survey method could result in changes to the data

The issue:

[21] https://www.sportengland.org/know-your-audience/data/active-lives?section=methodology#adultsurvey

[22] https://www.gov.uk/government/publications/community-life-survey-experimental-online-survey-findings

[23] https://www.gov.uk/government/collections/people-and-nature-survey-for-england

The principal risk of a change to a new methodology is that the results will no longer be directly comparable with the existing surveys and their historical trend data. The impact of changing the methodology on trend data need to be understood. We also believe it is important to ensure that, if moving to a gambling-specific survey, it does not attract an over-representation of gamblers or problem gamblers.

We therefore propose to pilot an alternative method to identify and understand the impact that this has on the data compared to our existing surveys. We will work closely with our stakeholders to manage any changes in the data and may consider applying weights to the data (if necessary) to take into account any discontinuity of the data series. Any changes to time series data will also be communicated via our website.

Proposal:

To pilot questions using a potential new methodology in 2021 so that we can compare the results of the pilot with the telephone and online surveys that take place over a similar time frame, and with the most recent Health Survey data (2018).[24]

To take steps to ensure that the survey does not encourage an over-representation of gamblers, by taking care in the way the survey is branded and introduced to participants.

To analyse and report on comparability of trend data.

Subject to satisfactory pilot study data, to begin our new survey methodology in 2022.

Rationale:

A pilot stage is necessary to be able to analyse and understand the impact of a change to the methodology on participation, prevalence and other important metrics (such as contextual data about physical and mental health comorbidities) and to build sufficient confidence to support a permanent change.

Questions:

- Do you agree with this proposal?
- What impact would a break in the time series have on your work?

[24] The 2021 Health Survey data will not be available until the end of 2022 at the earliest, so will not form part of our initial parallel test, but would be reviewed and considered against data from a new approach when it is published. Due the key participation and prevalence data from the Health Surveys remaining relatively stable over time, we consider that comparing pilot data against the 2018 HSE and NSW will provide a sufficient understanding of mode effects.

Annex 1: Best practice in survey methodology

This section provides an overview of best practice for sampling and methodology for population measurement surveys. It considers the pros and cons of the main research methodologies that are available as well as recent developments whereby significant national surveys have changed their methodology.

In an ideal world, measurement of gambling participation and prevalence in the population would be gathered via a census of the entire population. However, collecting data from all members of the population is not realistic due to cost and time constraints, and so participation and prevalence data is typically gathered via surveys with nationally representative samples[25]. According to a worldwide review of gambling research between 2000-2015, most studies on participation and prevalence have been conducted in Europe, Asia, North America and Oceania, and many countries have never carried out research on gambling behaviour[26].

Sampling

Random probability sampling – the approach used by the Health Surveys – is generally regarded as the best survey method to achieve accurate population estimates[27]. In short, random probability sampling satisfies two criteria: 1) that every unit in the population has a chance of being selected for the sample, and 2) that the probability of selection for any unit in the population is either known or could be populated[28].

The alternative to random probability sampling is non-probability sampling. Methods based on non-random criteria include convenience sampling, voluntary response sampling and quota sampling. Such methods have become more popular in recent years as they typically enable research to be conducted at lower cost, and more quickly[29].

Much, but not all, of non-probability sampling is conducted using online panels. There are a number of limitations with these types of non-probability online samples,

[25] Two examples of this are New Zealand's 2016 Health and Lifestyles Survey and Northern Ireland's Gambling Prevalence Survey.
https://www.hpa.org.nz/sites/default/files/Final-Report_Results-from-2016-Health-And-Lifestyles-Survey_Gambling-Feb2018.pdf
https://www.communities-ni.gov.uk/publications/2016-northern-ireland-gambling-prevalence-survey

[26] Calado, F. & Griffiths, M. D. (2016). Problem gambling worldwide: An update and systematic review of empirical research (2000-2015). Journal of Behavioral Addictions. DOI: 10.1556/2006.5.2016.073

[27] Sturgis, P. (2020). An assessment of the accuracy of survey estimates of the prevalence of problem gambling in the United Kingdom. Retrieved from: https://www.begambleaware.org/sites/default/files/2020-12/an-assessment-of-the-accuracy-of-survey-estimates-of-the-prevalence-of-problem-gambling-in-the-united-kingdom.pdf

[28] https://www.ipsos.com/en/ipsos-encyclopedia-random-probability-sampling

[29] Göritz, Reinhold & Batinic (2000), cited in Cornesse et al. (2020). A Review of Conceptual Approaches and Empirical Evidence on Probability and Nonprobability Sample Survey Research. *Journal of Survey Statistics and Methodology. 8*(1). https://doi.org/10.1093/jssam/smz041

including low response rates and bias[30], often a result of noncoverage of those without internet access and self-selection bias. There are also concerns around fraudulent and inattentive behaviour by panellists[31].

The continued view of random probability sampling as 'gold standard' is evidenced in a recent paper by Cornesse et al (2020)[32] where a summary of existing research demonstrates that probability samples provide consistently more accurate estimates than non-probability samples, over many topics including health, consumption behaviour and sexual behaviour and attitudes. The authors' key recommendation from this research, is to continue relying on probability samples, as the accuracy of probability samples are generally higher than non-probability samples, even with declining response rates.

Methodology/Data Collection

This section aims to provide an overall summary of the different methodologies available for collecting data on gambling participation and prevalence. Their respective advantages and disadvantages are also discussed.

The four main avenues of data collection are:

- Face-to-face surveys
- Postal surveys
- Telephone surveys
- Online/web-led surveys

These survey modes are also often used in combination with each other, referred to as mixed-mode surveys.

Face-to-face Surveys

Historically, face-to-face interviews, conducted by interviewers in respondents' homes, have provided the best means of delivering random probability samples. Such surveys, of which the HSE and SHeS are examples, use the Postcode Address File (PAF; a list of every point in the UK to which mail is delivered) to randomly select addresses which gives each household an equal likelihood of being selected. This is a key point of difference from telephone and online surveys, which rely on respondents having phone and/or internet access. Face-to-face interviews are more effective at reaching 'hard-to-get' population groups compared to other modes[30] and

[30] Smith, Nicolaas & Sturgis (2014). Options for carrying out large-scale surveys in Wales. Retrieved from: https://gov.wales/sites/default/files/statistics-and-research/2019-02/options-carrying-out-large-scale-surveys-wales-2014.pdf

[31] AAPOR Task Force on Online Panels 2010: https://www.aapor.org/Education-Resources/Reports/Report-on-Online-Panels

[32] Cornesse et al. (2020). A Review of Conceptual Approaches and Empirical Evidence on Probability and Nonprobability Sample Survey Research. *Journal of Survey Statistics and Methodology. 8*(1). https://doi.org/10.1093/jssam/smz041

traditionally have had higher response rates, which mean that the risk of non-response bias is overall lower.

In regards to COVID-19, it is important to note that the lockdown in March 2020 resulted in all face-to-face interviewing being stopped, which caused immediate disruption to surveys already in field (such as the HSE), in addition to long-term uncertainty about when and how fieldwork can resume. The Office for Statistics Regulation (OSR) have published guidance to the producers of official statistics, stating their support for flexibility and responsiveness shown by producers[33]. Since lockdown was eased, research agencies have been able to resume face-to-face fieldwork, however new safety measures have had to be introduced. Data collection methods have evolved to allow for socially distant doorstep interviews and there has been an increased reliance on interviewer-administered telephone and video interviews[34].

The ongoing impact of COVID-19 and the uncertainty surrounding the future may well accelerate the shift from face-to-face interviewing to other methods. The HSE (including the Commission's gambling content) is currently expected to take place in 2021, however there must be a question mark over its future given the risk of further national and local lockdowns related to COVID-19.

Postal Surveys

A postal survey is a method in which paper questionnaires are sent to participants by post and are self-completed by the respondents and then returned through the mail. Postal surveys appear to have been used in Finland[35] and Italy[36] for measuring gambling participation and prevalence in the respective countries. Postal surveys are more frequently used in combination with other modes of data collection, in attempt to improve response rates and ensure coverage of those who do not have phones or internet access (see 'Mixing modes of data collection' below).

Key advantages of postal surveys include that they are generally less expensive to run than telephone and face to face surveys (though are more expensive than web surveys), and they offer better coverage of the population than online surveys, which exclude those without internet access[37].

A major disadvantage of postal surveys is that they are generally not appropriate for longer surveys and those that have complex routing. The more complex a paper survey is, the lower quality the end data will be (due to missing responses, routing errors and miscomprehension). It should also be noted that postal methods are not

[33] https://osr.statisticsauthority.gov.uk/covid-19-and-the-regulation-of-statistics/

[34] https://www.ipsos.com/ipsos-mori/en-uk/ipsos-mori-resumes-face-face-fieldwork

[35] Castrén, S., Basnet, S., Pankakoski, M., Ronkainen, J. E., Helakorpi, S., Uutela, A., Alho, H., & Lahti, T. (2013). An analysis of problem gambling among the Finnish working-age population: A population survey. BMC Public Health, 13, 519. doi:10.1186/1471-2458-13-519

[36] Bastiani, L., Gori, M., Colasante, E., Siciliano, V., Capitanucci, D., Jarre, P., & Molinaro, S. (2011). Complex factors and behaviors in the gambling population of Italy. Journal of Gambling Studies, 29, 1–13. doi:10.1007/s10899-011- 9283-8

suitable for surveys amongst those with poor literacy skills and language proficiency, and may also be difficult for those with visual disabilities (this limitation would also apply to web surveys, though web surveys are more easily able to address these limitations, as discussed below)[37].There is also likely to be a slower turnaround with a postal survey, due to a longer fieldwork period[30] and time required for data entry. In terms of response rates, postal surveys usually have lower response rates than face-to face surveys, although generally higher than telephone and web surveys.

Telephone Surveys

Telephone interviewing is a popular alternative method of running a nationally representative population survey, with it being used for national gambling surveys in multiple countries including (but not limited to) Australia, Hong Kong, France and Belgium[26]. Fieldwork is typically conducted using computer-assisted telephone interviewing (CATI) in which the interviewer follows a script that is controlled by the survey software.

A key advantage of telephone surveys is that they provide a means of carrying out interviewer-administered interviews without the need to visit respondents' homes. This fact means that the method has been more resilient than in-home surveys to the impact of Covid-19; the Commission's telephone survey has been able to continue throughout 2020 whereas the Health Survey, and other surveys of its type, have seen fieldwork halted. Nationally representative telephone surveys also tend to have a lower cost than face to face research and can typically be turned around relatively quickly.

Telephone surveys typically use Random Digit Dialling (RDD), either using the Ofcom database of landline numbers, which includes ex-directory numbers as well as listed numbers, or the random generation of the last 'N' digits of numbers taken from other sources. This is not a true random probability sample as it is unknown whether all numbers have an equal chance of being selected[30]. Additionally, in practice 'RDD' samples for telephone surveys often include quota controls, unlike a true random probability sample.

A further issue with telephone surveys is that the proportion of mobile-only households is increasing, hence increasing the level of bias in estimates unless mobiles can be included (though this is both complex and expensive)[30]. It has been argued that telephone surveys are no longer considered viable for high quality random probability surveys, due to the difficulties in drawing rigorous samples that remain comparable over time[38].

It should be noted that research has shown that compared to face-to-face interviewees, telephone survey respondents are more likely to give what they

[37] https://www.ipsos.com/en/ipsos-encyclopedia-postal-surveys

[38] https://the-sra.org.uk/SRA/Blog/The%20impact%20of%20Covid19%20on%20high%20quality%20complex%20general%20population%20surveys.aspx

consider to be 'satisfactory' answers rather than the full, true picture (known as 'satisficing'), tend to be less engaged, and are more likely to show dissatisfaction with survey length (even when telephone interviews are shorter). Telephone surveys may also not be suitable for data collection for more sensitive topics as respondents may not be willing to reveal personal details or information regarded as less socially acceptable to an interviewer[39].

Online/web-led surveys

Over the past few years, we have seen a rise in use of online surveys in the UK, most of which are based on opt-in panels, widely used for market research and opinion polling, but also social research[40]. The ONS has been leading a drive for its surveys to be 'online first', with traditional methods used for follow up. This goal is aligned with the Government Digital Strategy which is to be 'Digital by Default'[41]. The shift to online and mixed-mode survey methodologies has likely been accelerated by the recent impact of COVID-19 on face-to-face interviewing.

It is important to distinguish the use of a random probability sample who then complete the survey online, from an online survey whereby participants are recruited through opt-in panels. There are a number of limitations with these types of self-selecting, non-probability samples, including low response rates and bias[30], but also concerns around fraudulent and inattentive behaviour by panellists[42]. As a result, opt-in panel surveys are generally considered a less robust means of generating accurate population estimates compared to probability samples. The majority of studies currently indicate that both offline and online probability sample surveys are more accurate than non-probability online sample surveys[43].

The cost and time-saving advantages of online panel methodologies have encouraged multiple countries worldwide to set up web panels based on probability samples. Research suggests that the model can provide high population coverage and reduce the risk of selection bias[44]. Participants for probability-based panels are recruited by using conventional sampling frames and methods, and using traditional modes of contact and incentives. In some cases, research using online probability-based panels includes offline households by providing them with internet access, or

[39] Holbrook, Green & Krosnick (2003). Telephone versus Face-to-Face Interviewing of National Probability Samples with Long Questionnaires: Comparisons of Respondent Satisficing and Social Desirability Response Bias. Public Opinion Quarterly, 67(1). https://doi.org/10.1086/346010

[40] Lugtig (2013). Cited in Nicolaas, G., Calderwood, L., Lynn, P. & Roberts, C (2014). Web surveys for the general population: How, why and when? http://eprints.ncrm.ac.uk/3309/3/GenPopWeb.pdf

[41] Blog on the ONS website: https://blog.ons.gov.uk/2019/01/10/designing-future-surveys/

[42] AAPOR Task Force on Online Panels 2010: https://www.aapor.org/Education-Resources/Reports/Report-on-Online-Panels

[43] MacInnis, B., Krosnick, J. A., Ho, A. S. & Cho, M. (2018). The Accuracy of Measurements with Probability and Nonprobability Survey Samples: Replication and Extension. Public Opinion Quarterly. 82(4). https://doi.org/10.1093/poq/nfy038

[44] Callegaro et al (2014b). Cited in Nicolaas, G., Calderwood, L., Lynn, P. & Roberts, C (2014). Web surveys for the general population: How, why and when? http://eprints.ncrm.ac.uk/3309/3/GenPopWeb.pdf

allowing them to take part using a different mode. Within the UK, we have seen multiple research agencies utilize these panels, with examples including NatCen and Kantar.

One limitation to note with self completion online methods, is that similar to postal surveys, they may not be suitable for those with poor literacy skills and low language proficiency and may also be difficult for those with visual disabilities. However, these limitations are more easily addressed with web surveys than they are with postal versions, due to the ability to increase font size and offer audio options, amongst other accessibility options.

Alternatively, 'push to web' and web-first surveys are a method of data collection whereby respondents are recruited offline, and then encouraged to go online and complete a web questionnaire. Push-to-web methods are used for web surveys that require a random probability sample, amongst sampling frames that do not include email addresses. Contact is typically made by recruitment from another survey[45], through the post, and sometimes by telephone[46] [47].

Mixing modes of data collection

Given the limitations of each of the main methodologies, and the desire for increased cost-efficiency, many survey designers are now selecting mixed-mode approaches, which give an opportunity to compensate for the weaknesses of individual modes at a more affordable cost. For example, respondents can be offered a choice in how they wish to respond to a survey, or non-responders to the preferred mode can be followed up using a secondary method. In recent years we have seen various surveys shift from 'traditional' face-to-face surveys to 'push-to-web' and digitized methods. For example, the Opinions and Lifestyle Survey conducted by the ONS has switched from a face-to-face data collection to an 'online' first methodology with telephone follow-up of online non-respondents[48]. Other surveys which have changed to mixed-mode approaches in recent years include the Understanding Society Survey[49], the Active Lives survey[50], and the People and Nature Survey[51].

We have also seen the Community Life Survey, a survey which is designed to provide official statistics and is commissioned by DCMS, move from a face-to-face methodology to a push-to-web survey. Since 2016, the survey has been conducted using Address Based Online Surveying (ABOS), which is conducted via an online methodology with a simplified paper version (for those who are unable to participate

[45] Examples include the Opinions and Lifestyle Survey, where respondents are drawn from the Annual Population Survey, which consists of respondents who completed the last Labour Force Survey.
[46] Examples of push-to-web surveys include the Active Lives Survey and the Community Life Survey.
[47] https://www.ipsos.com/en/ipsos-encyclopedia-push-web-surveys
[48]https://www.ons.gov.uk/aboutus/whatwedo/paidservices/opinions/opinionsandlifestylesurveymixedmodepilotanalysis
[49] https://www.understandingsociety.ac.uk/
[50] https://www.sportengland.org/know-your-audience/data/active-lives?section=methodology
[51] https://www.gov.uk/government/collections/people-and-nature-survey-for-england

online and/or those who are given a second reminder to participate), and provides an affordable method of surveying the general population whilst maintaining a random sampling technique[52].

52 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/899706/Community_Life_Online_and_Paper_Survey_Technical_Report_-_2019-20.pdf

Annex 2: Background on current participation and prevalence surveys

The Health Surveys (England and Scotland)

The Commission's main measures of problem, moderate risk and low risk gambling rates among adults aged 16 and over are via the Health Survey for England (HSE), Scottish Health Survey (SHeS) and Welsh Problem Gambling Survey.

The Health Surveys were identified as the most suitable vehicles for the inclusion of gambling content following the cessation of the British Gambling Prevalence Survey (BGPS) series in 2010. The Health Surveys were identified via an internal review of large-scale survey vehicles that were available at the time including their methodologies, coverage and potential for including content on gambling. It was felt at that time the Health Surveys provided a regular, robust vehicle and would bring benefits of exploring co-morbidities with problems with gambling. The internal review was followed by a public consultation.

The HSE and SHeS are large-scale face-to-face household surveys which cover core topics every year, including general health and key lifestyle behaviours that influence health, and social care. Fieldwork takes place throughout the calendar year. They are the Department of Health's and Scottish Government's main measures of health in the population. The Health Surveys are predominantly interviewer-administered via computer assisted personal interviewing (CAPI), however the gambling content (and other topics, such as sexual orientation and religion in the HSE) is collected via self-completion booklets which are handed out to respondents during the face to face interviews. The self-completion approach is adopted to help elicit more honest answers from respondents on potentially sensitive topics, particularly where other household members may be present.

In terms of methodology, the HSE uses a stratified random probability sample[53] of households to generate a core sample which is designed to be representative of the population living in private households in England, while the SHeS uses a similar clustered, stratified multi-stage sample design.[54] Respondents are interviewed in households identified at the selected addresses. In the HSE 2018, the sample comprised 9,612 addresses selected at random in 534 postcode sectors and a total of 7,126 adults completed the gambling questions. In the most recent SHeS that included our questions, in 2017, the core sample consisted of 4,445 addresses,

[53] A stratified random sample is a sample obtained by dividing a population group into distinct units or strata based on shared behaviours or characteristics

[54] Those living in institutions are outside the scope of the survey. This should be borne in mind when considering survey findings since the institutional population is likely to be older and, on average, less healthy than those living in private households.

providing an overall sample of 3,697 respondents, of whom 3,198 completed the gambling questions.

For more information on the methods for the Health Surveys, please see NHS Digital's Health Survey for England 2018 Methods document and the Scottish Health Survey 2017 Technical Report.

The gambling content of the surveys is:

- Past 12 months participation by activity – the list of activities in the health surveys is not as granular as the telephone survey e.g. for online play there are only two categories – any online gambling and any online betting. This, coupled with the frequency of the surveys, is why the telephone survey is currently considered our main measure of participation levels.
- Overall frequency of gambling – captured across activities, rather than for individual activities
- Problem gambling, moderate risk and low risk rates according to the full (9 item) PGSI screen
- Problem gambling rates according to the DSM-IV (10 item screen developed for use in a clinical setting)

The HSE and SHeS include both the full PGSI screen and the full DSM-IV screen, allowing detailed assessment of problem gambling prevalence[55]. Rates from the two screens are reported both separately, and in combination in order to produce the most accurate estimates of problem gambling (i.e. a respondent is defined as a problem gambler if they meet the definition according to either or both screens).

Fieldwork for the HSE 2020 stopped in March because of Covid-19 and will not restart this year. NHS Digital currently plan to resume the HSE in 2021, and the Commission's participation and prevalence questions will be included.

Welsh Problem Gambling Survey

Following the identification of the Health Surveys as the best vehicle for inclusion of gambling content at the time of our previous review, the Commission also took steps to include content in the equivalent survey for Wales. Initial attempts were unsuccessful[56], so to fill the gap for Wales in 2015, 2016 and 2018 we utilised Beaufort Research's Wales Omnibus Survey as our vehicle for the Welsh Problem

[55] The Welsh Problem Gambling Survey also typically includes both the PGSI and DSM-IV screens, however the 2020 National Survey for Wales (NSW) was able to accommodate only the PGSI screen
[56] This was predominantly because two of Wales' principal national social surveys (the Welsh Health and Welsh Household surveys) were combined to form one National Survey and therefore space was limited at that time

Gambling Survey. For 2020 fieldwork, we were able to secure space on the National Survey for Wales (NSW) for the standard gambling participation and PGSI questions.

Although Wales does not run a Health Survey in the same way as England and Scotland, the methodology for Wales is intended to supplement England and Scotland with data which is as comparable as possible. As with the HSE and SHeS the gambling questions in Wales, regardless of the vehicle used to date, are self-completed by respondents. However, the 'equivalent' surveys adopted in Wales do not include the detailed questions on health topics that are incorporated in the HSE and SHeS.

In common with the HSE and SHeS, the Beaufort Research Wales Omnibus Survey is also conducted in people's homes using CAPI (with the gambling content being self-completed by respondents) however there are some notable differences in approach compared to the HSE and SHeS:

- The survey runs on a quarterly basis in March, June, September and December (rather than throughout each month of the year) with c.4,000 interviews across the year
- A combination of random location sampling and quota sampling is used (in comparison to the HSE and SHeS which use a pure random location design and do not apply quotas)

The NSW, like the Health Surveys, is a large-scale survey which runs throughout the year using a random probability sampling approach. As with the England and Scotland surveys, the core interview content is interviewer-administered via CAPI, with the gambling questions and other topics considered sensitive, being self-completed by respondents. However, a key difference between the NSW 2020 and the HSE 2020 is that the NSW was not able to accommodate the DSM-IV screen, instead intending to use only the PGSI to establish problem gambling prevalence.

Like the HSE, the NSW 2020 fieldwork was also suspended due to Covid-19. To allow some aspects of the NSW to continue, a short telephone survey of appropriate topics in the 2020-21 survey was agreed by the Welsh Government; however, the gambling questions were not included in this short survey because it was felt that the topic would not work well by telephone.

Quarterly telephone survey

The telephone survey is conducted by Yonder on a quarterly basis in March, June, September and December with c.1,000 interviews conducted in each wave. Telephone numbers to be called are generated via random digit dialling (RDD) with a 50:50 split of mobile and landline numbers[57]. The sample of valid numbers generated is then cycled through the month until the required number of interviews is achieved. Quotas for number of interviews are set based on age, gender, social grade and region and data are weighted to the profile of the national population.

The core content of the survey is:

- Participation in different gambling activities in the past 4 weeks
- Mode of play for each activity (online / in-person)
- Whether the respondent has bet in-play in the past 4 weeks
- Frequency of play for each activity and mode
- Attitudes to gambling and motivations for gambling
- The short-form PGSI
- Demographics

The telephone survey data is released via an annual gambling participation report each February, with this report also including relevant data from the quarterly online survey. In addition, a more limited set of telephone survey data on gambling participation is released quarterly. All telephone survey data is reported on an aggregate 12-month basis to counteract seasonal differences in gambling behaviour, so each report is based on around 4,000 interviews.

The telephone survey has included an assessment of problem gambling rates via the short-form PGSI since mid-2011. This allows a quick assessment of problem gambling status and has been shown to track well to the full PGSI screen for overall rates of problem gambling and rates within large demographic groups (age and gender splits). When the short-form (or 'mini-screen') PGSI was developed it was, however, advised that it should not be used to track detailed changes in problem gambling behaviour. As such we are unable to use the current telephone survey data to track indicators such as problem gambling by activity or problem gambling rates within smaller demographic groups.

[57] Working to a 50% mobile split allows for a natural fallout of mobile only households (currently 21% according to Ofcom)

Quarterly online survey

The quarterly online survey has been run by the Commission since March 2015 with the aim of gaining a more detailed understanding of how consumers engage with online gambling products than is possible via the Health Surveys and quarterly telephone survey due to restricted space on those studies and cost considerations.

The online survey is run by Yonder and is included as part of their online omnibus. Surveys run on a quarterly basis in March, June, September and December with 2,000 interviews conducted per quarter. As with the telephone survey, quotas are set based on age, gender, social grade and region and data are weighted to the profile of the national population.

The core content of the survey which is released as official statistics is:

- Mode of play
- Devices used for online gambling
- Location of play
- Participation in in-play betting
- Number of gambling accounts
- Use of self-exclusion and other gambling management tools
- Exposure to gambling advertising (including via social media) and its perceived impact
- Social gaming play

In addition, questions are asked about participation and problem gambling prevalence (via the full PGSI screen) for survey routing purposes, however these questions are not included in our statistical outputs as they duplicate content from the Health Surveys and telephone survey.

The online tracker is the Commission's current most practical option for inclusion of topical questions relating to general gambling behaviour and issues. This is because of the ease with which new questions can be added to the survey and the low cost per question relative to the Health surveys and telephone survey.

The online survey data is released as part of the annual gambling participation report alongside telephone survey data. In addition, online survey data for 2019 was released in an Excel file. As with the telephone survey, all online survey data is reported on an aggregate 12-month basis to counteract seasonal differences in gambling behaviour, so each report is based on around 8,000 interviews.

Whilst the online tracker provides a quick and cost-effective method for gaining the views of consumers it arguably does have some methodological flaws. The extent to which these may bias results is the subject of debate in research circles with some agencies claiming that online samples can be just as high quality as research via more traditional methods and others pointing to potential weaknesses such as:

- Mode of interview – the online methodology means that the sample responding to the survey are more likely to be engaged online thus skewing the data. This is likely to be especially true for the older age groups where high online engagement is less ubiquitous than amongst younger people. As such we do not

use the online survey to report overall rates of engagement in online gambling (the telephone survey is the main measure for this) or to report rates of problem gambling.

- Panel interviews – the surveys are conducted with members of the Yonder online panel. These individuals have signed up to receive surveys on a regular basis. It is natural that people with certain characteristics are more likely to sign up to be members of a panel and therefore the surveys may not be entirely representative of the population

Despite these limitations the survey is, however, particularly useful for understanding the behaviour of gamblers who are more engaged online. It is also useful in tracking trends over time (as the methodology does not change).

GAMBLING COMMISSION

Non-Disclosure Agreement

Gambling Commission

Contractors and Supplier Individuals

V1 Nov 2022

THIS AGREEMENT made as of the 25 Oct 2023

BETWEEN

1. Gambling Commission of 4th Floor, Victoria Square House, Victoria Square Birmingham B2 4BP (the **Commission**);

   -and-

2. Professor Patrick Sturgis of [address details] (the **Recipient**);

known together as "the Parties" and individually as a "Party".

RECITALS

In order to conduct a review of the Gambling Survey for Great Britain, the Commission will disclose confidential information (commercially sensitive Information) to the Recipient for it to be used strictly for the Project only in accordance with the terms set out in this agreement (**Agreement**).

The parties agree as follows:

1. **Definitions**

   1.1. **Confidential Information** shall mean any and all information (personal and commercially sensitive information) in whatever form disclosed by the Commission including and/or its professional advisors / external consultants whether orally or in writing or whether eye readable, machine readable or in any other form including, without limitation, the form, materials and design of any relevant software or equipment or any part thereof, the methods of operation and the various applications thereof, processes, formulae, plans, business plans, strategies, data, know-how, ideas, designs, photographs, drawings, specifications, technical literature, information relating to employees, customers, suppliers or content providers and any other material made available to the Recipient or gained by the visit of the Recipient to any establishment of the Commission whether before or after this Agreement is entered into, for the purpose of considering, advising in relation to or furthering the Project (and any information derived from such information) and provided that such information is by its nature clearly confidential (whether or not that information is marked or designated as confidential or proprietary).

2. **Undertakings**

   2.1. The obligations in this Agreement shall continue in perpetuity unless the Commission makes the information public themselves.

   2.2. The Recipient hereby undertakes with the Commission (but so that in this paragraph "Confidential Information" shall mean only Confidential Information which is provided by or on behalf of the Commission, including and/or its professional advisors / external consultants (**Affiliates**):

      2.2.1. to maintain the Confidential Information in strict confidence and, save as provided herein, not to divulge any of the Confidential Information to any third party and in addition not to communicate, indicate or suggest to any third party the existence of the Project;

      2.2.2. not to make use of the Confidential Information other than for the purpose of the Project;

      2.2.3. to restrict access to the Confidential Information only to its own responsible employees or professional advisers who need to have such access for the purposes of the Project and to impose upon such person's obligations of confidentiality equivalent to those

contained herein (and to be responsible for any breach of the terms of this Agreement by its own employees or advisers);

2.2.4. that it shall not at any time reverse engineer, decompile or disassemble any software disclosed to it during the Project and it shall not remove, overprint, or deface any notice of copyright, trademark, logo, legend, or other notices of ownership from any originals or copies of Confidential Information;

2.2.5. that the disclosure of the Confidential Information shall not be deemed to confer any proprietary rights upon the Recipient, and/or its employer organisation, nor shall such disclosure be construed as granting any license of rights of any intellectual property in the Commission;

2.2.6. to take or to permit to be taken only such copies of any document or other material (in whatsoever medium) embodying any of the Confidential Information as are reasonably necessary for the purposes mentioned herein and forthwith on request at any time to return (and procure the return by any third party to whom disclosure of any of the Confidential Information by it has been made) to the Commission or as it may direct all or any of the documents or other material containing or embodying the Confidential Information together with all copies thereof and extracts therefrom, save we shall be permitted to retain such copies of the Confidential Information, howsoever stored, as required for legal, regulatory or professional body requirements provided that we shall retain and store such copies at all times in accordance with the terms of this Agreement;

2.2.7. to confirm to the Commission in writing at any time on request that it has complied with the provisions hereof; and

2.2.8. if the Recipient receives any communication requesting disclosure of any of the Confidential Information or indicating an intention to obtain or the fact that there has been obtained any order which would oblige the Recipient in law to disclose any of the Confidential Information, that the Recipient will **to the extent permitted by law** (as soon as reasonably practicable and by the fastest means possible, confirmed in writing) communicate to the Commission the fact that the communication has been received and all details of the same with a view to the Parties co-operating in taking all reasonable and proper steps to ensure so far as is possible that the Confidential Information and the Project are maintained in the strictest confidence.

3. **Acknowledgement and confirmation**

3.1. Each Party hereby further acknowledges and confirms to the other as follows:

3.1.1. that the Confidential Information is proprietary information of the Commission, the disclosure of which could adversely affect the Commission and result in economic harm;

3.1.2. that neither the Commission nor any of its subsidiaries, nor any of its or their respective advisers nor any of its shareholders, agents, officers or employees accept responsibility or liability for or make any representation, statement or expression of opinion or warranty, express or implied, with respect to the accuracy or completeness of the Confidential Information or any oral communication in connection therewith unless and save to the extent that such representation, statement or expression of opinion or warranty is expressly incorporated into any legally binding contract executed between the Parties;

3.1.3. that the provisions of this Agreement shall continue in effect notwithstanding any decision by the Parties not to proceed with the proposed transaction or any return or destruction of the Confidential Information;

3.1.4. that damages alone would not be an adequate remedy for any breach of the provisions of this Agreement and, accordingly, without prejudice to any and all other rights or remedies that either Party may have against the other each shall be entitled to the remedies of temporary or permanent injunction, specific performance, and other equitable relief for any threatened or actual breach of the provisions of this Agreement;

3.1.5. that if either of the Commission or its Affiliates furnish or have furnished any confidential information of its Affiliates, the Recipient will have the same obligations to such Affiliate with respect to such information as it has to the Commission with respect to the Confidential Information as if all references in this Agreement to that Party were references to such Affiliate; and

3.1.6. that this Agreement contains the entire agreement between the parties and supersedes all prior oral, or written representations, understandings, or agreements. Any changes to this Agreement must be agreed in writing by both parties. Each clause of this Agreement is severable if deemed void, illegal, or unenforceable by a court or competent authority.

4. **Exemption**

4.1. The above undertakings shall not apply to Confidential Information which:

4.1.1. is or becomes publicly available, other than as a result of a breach of this Agreement or becomes lawfully available to the Recipient to whom it is disclosed for the purposes of the Project from a third party free from any confidentiality restriction;

4.1.2. was already in the possession of the Recipient (as shown by its pre-existing written records) before it was disclosed it to the Recipient;

4.1.3. was independently developed without access to or use of the Confidential Information

4.1.4. either Party is required to disclose:

4.1.4.1. by law;

4.1.4.2. by any rule or regulation of any stock exchange;

4.1.4.3. by any Court procedure; or

4.1.4.4. by any rule or regulation of any regulatory or professional body or government authority;

provided that, to the extent permitted by law and so far, as is practicable to do so the disclosing Party shall consult with the other prior to such disclosure with a view to agreeing its timing and content.

5. **Solicitation**

5.1. Both Parties agree unconditionally and irrevocably to undertake to not directly, or indirectly solicit or entice away from either Party any employee of the other Party.

6. **Jurisdiction and Governing Law**

6.1. This Agreement and any disputes, claims or proceedings arising out of or in any way relating to this Agreement shall be governed by the laws of England. The English courts shall have exclusive jurisdiction for the purpose of any proceedings arising out of or in any way relating to this agreement. Without prejudice to the foregoing, the Parties may seek provisional or protective relief in the Courts of another State prior to, during or after any substantive proceedings have been instituted in England and the parties may bring enforcement proceedings in another State on foot of an English judgement.

SIGNED FOR AND ON BEHALF OF The Gambling Commission:

SIGNATURE: 

PRINT NAME: 

DATE: 25/10/23

SIGNED FOR AND ON BEHALF OF (Supplier):

SIGNATURE:

PRINT NAME:

DATE:

Gambling Survey Experimental Phase Step 3 Weighting Technical Summary

The Gambling Survey Experimental Phase Step 3 response data was weighted to take account of non-response, bias, and improve representativeness. As there was no disproportionate sampling, selection weights were not required. The weighting method consisted of two stages:

1. a logistic regression model for number of responses within a household (run for households with more than one eligible adult),
2. a calibration to population estimates.

This same method was also used to weight steps 1 and 2 of the experimental phase data.

For the first stage, forward and backward stepwise logistic regression models were used to rest which variables were associated with propensity to provide more than one response within a household. This model was run only for households with more than one eligible adult. Both area-level variables (from the 2021 census for England and Wales and the 2011 census for Scotland) and household-level variables were tested. The final regression model included all variables that were significant in stepwise regressions: household tenure, household income, number of adults in household, quintiles of area ethnic minority population, and quintiles of area population in work (interacted with a flag for Scotland, as the census 2021 and 2011 measures of employment had a different base).

The predicted probabilities from this model were used to create response weights for households with more than one eligible adult. Weights were checked for outliers and left untrimmed. Weights for responding households with only one eligible adult were set to 1.

The response weights were then calibrated to estimates of the eligible population, residents of GB aged 18 and above. Calibration weighting adjusts the weights so that characteristics of the weighted achieved sample match population estimates, reducing bias. The following variables were included in the calibration: age categories by sex, region, Index of Multiple Deprivation (IMD) percentiles (quintiles for England and bitiles for Wales and Scotland), tenure, ethnicity, and highest level of education.

Estimates of the GB population by age, sex, and region of residence were taken from Office for National Statistics (ONS) 2021 mid-year population estimates. Population estimates for IMD percentiles within each country were taken from ONS (England and Wales) and National Records of Scotland (Scotland). Population estimates for tenure, ethnicity, and highest level of education were taken from the most recent Labour Force Survey data available, which was gathered between January and March 2023.

After calibration, the weights were checked for outliers and left untrimmed. The final step 3 weight (n=3,802) has a design effect of 1.28, an effective sample size of 2,973, and efficiency of 78%.

Background

In December 2020, the Gambling Commission launched a consultation on gambling participation and prevalence research (opens in new tab) to gather views on proposals to develop a single, high quality methodology to measure gambling participation and prevalence of problem gambling. The aim was to have a more efficient, cost effective data source providing robust and timely insight and the flexibility to swiftly provide information on emerging trends. The results of the gambling participation and prevalence research consultation were published in June 2021.

In October 2021 the National Centre for Social Research (NatCen), working with the University of Glasgow and Bryson Purdon Social Research, was commissioned to take on the pilot project to test the new data collection methodology in 2021 to 2022. The pilot was successful in attracting participants and exceeded response rate expectations. Estimates of gambling participation and problem gambling were somewhat higher than those based on the Health Survey for England (HSE) 2018 (opens in new tab), but were lower than those typically generated by online panel surveys and thus broadly commensurate with expectations at this stage.

Upon its successful evaluation at the pilot stage, the methodology was rolled out in summer 2022 for data collection under experimental statistics. Experimental statistics (opens in new tab) are a subset of newly developed or innovative official statistics undergoing evaluation. The experimental statistics phase was contracted to NatCen, working with the University of Glasgow. The main aim of the experimental statistics phase was to build on the pilot and conduct further testing and refinement, to ensure the survey design and questionnaire content was robust for official statistics continuous data collection. The experimental statistics phase involved three steps:

- step 1: experiments on participant selection and gambling-related harm questions
- step 2: testing different approaches to asking about gambling participation
- step 3: final test of agreed approach and content taking on board recommendations from step 1 and step 2.

Findings from the experimental phase were published in April 2023 and are reported in Gambling participation and the prevalence of problem gambling survey: Experimental statistics stage report (opens in a new Tab). Following the

success of the experimental phase, the survey moved to continuous official statistics data collection in July 2023.

This technical report provides detail on the background and methodology for Year 1 of the Gambling Survey for Great Britain (GSGB). Detail on the issued sample size, response and weighting strategy for each quarter is provided in the quarterly-specific report. The quarterly reports also provide detail of the online and postal questionnaires used in that quarter.

Methodology

Sampling strategy

A high-quality sample is essential for meeting the Gambling Commission's aim of creating a robust and nationally representative new survey. To achieve this, a stratified random probability sample of addresses in Great Britain was used. The target population of the survey was adults aged 18 years and over, living in private households within Great Britain.

The aim is to achieve a sample size of 5,000 productive individual questionnaires per quarter. Each quarterly sample for the GSGB is divided into two batches and issued at equal intervals (with minimal overlap between batches and quarters).

There is no publicly available list of adults that could be used for sampling individuals. However, the Postcode Address File (PAF), compiled by the Post Office, provides a list of postal addresses (or postcode delivery points) which can be used as a sampling frame. The sampling process had two stages:

- Selection of addresses from the PAF
- Selection of adults within addresses

Selection of addresses from the PAF

Prior to selection, the sample frame was stratified (ordered): this can help to reduce sampling error and thus increase the precision of estimates, as well as ensuring representativeness with respect to the measures used. The following measures for stratification (in order) were: Country and English region; Population density at Local Authority level and overall Index of Multiple Deprivation (IMD) score[1]

At each sampled address, there may have been more than one dwelling and/or household. However, a random selection of households is very difficult to operationalise without an interviewer and there was no control over which household opened the invitation letter. As a result, in multi-occupied addresses no formal household selection took place and the selection of which household took part was left to chance (i.e. whichever household opened the letter). The overall proportion of multi-occupied addresses for PAF samples is very small (around 1%), and it is therefore unlikely to lead to any systematic bias in the responding sample.

Selection of adults within addresses

At each address, up to two adults (aged 18 and over) were selected – by a

[1] Indices of multiple deprivation (IMD) is a measure of relative deprivation for small, fixed geographic areas of the UK. Separate indices are produced for each UK country. IMD classifies these areas into five quintiles based on relative disadvantage, with quintile one being the most deprived and quintile five being the least deprived.

householder - to complete the survey. If the household contained three or more adults, the instruction was that the two with the most recent birthday should be selected.

Asking a set number of adults (in the case of this survey, two) rather than all adults from each address to complete the survey is a well-established approach for push-to-web surveys in the UK.[2] Most residential addresses (85%) contain either one or two adults, meaning that exclusion of additional adults should not introduce any notable bias. Under this approach, it is estimated that 93% of the sample are the ones that would have been selected using a random approach.

While this approach leads to a degree of within-household clustering, the effect of this is expected to be low, as most gambling related behaviour (except lottery playing) is not highly correlated between household members. Moreover, the slight inefficiency at this stage is outweighed by the higher number of productive cases achieved from asking up to two adults from each address to complete the survey instead of only one.

Fieldwork dates

Fieldwork dates for quarters 1 and 2 were as follows (the first date for each quarter refers to when invitation letters were posted; the latter date refers to the final date returned paper questionnaires were accepted):

- Quarter 1 - 31st July 2023 to 16th November 2023
- Quarter 2 - 6th November 2023 to 7th March 2024

Questionnaire content and design

The survey uses a push-to-web methodology. To minimise non-coverage and selection bias, the online survey is supplemented by a postal questionnaire follow up to enable less technologically literate people, those without internet access and those who prefer an alternative approach to respond. This step is essential for the GSGB as some gambling behaviours, notably the propensity to gamble online, is correlated to the probability to take part in an online survey and would therefore lead to biased results.[3]

The questionnaires include content on:

- leisure activities, internet access and use
- gambling activities participated in in-person and online in the last 12 months and in the past four weeks
- Problem Gambling Severity Index (PGSI)
- own gambling harms and harms from others' gambling

[2] This approach uses offline contact methods to encourage people to go online and complete a questionnaire.
[3] Sturgis, P., & Kuha, J. (2022). How survey mode affects estimates of the prevalence of gambling harm: a multisurvey study. *Public Health*, *204*, 63-69.

- reasons for gambling
- how gambling makes participants feel; typologies (online participants only)
- gambling binge (online participants only)
- gambling management tools and complaints (quarter 2 online participants only)
- attitudes towards gambling (ATGS-8),
- illegal gambling (quarter 2 online participants only)
- fairness and trustworthiness of gambling (quarter 2 online participants only)
- advertising and social media
- health and wellbeing, including general health, smoking and drinking status, impulsivity scale, Short Warwick-Edinburgh Mental Well-Being Scale (SWEMWBS) and suicidality questions
- demographic questions.

Mailing strategy

The following overall participant engagement strategy was used, each item was sent to selected addresses in the post:

- invitation letter with the Uniform Resource Locator (URL) and two sets of login details needed to access the survey online. Letters also contained Quick Response (QR) codes as an alternative method of accessing the survey. A Welsh version of the letter was also sent to addresses in Wales

- first reminder letter

- second reminder letter with two postal questionnaires and return envelopes

- third reminder letter

The invitation letter and reminders - provided in Appendix A - were the main levers to convince people, including those who did not gamble, to take part. All were carefully designed following the latest best practice and following the participant engagement guidance for online surveys published by the Office for National Statistics (ONS), drawing on their extensive testing in this area (Participant engagement for push-to-web social surveys – Government Analysis Function (civilservice.gov.uk).

Experience shows that most people complete a survey within few days of receiving the request. The time between each mailing was therefore kept as short as possible, to ensure that the request was fresh in people's mind. A gap of around 10 days between mailings was introduced, to allow removal of responding participants from the sample for the reminders. The day of the week of the mailing was varied to

allow for the fact that different people may have time for survey participation on different days of the week.

A study website, freephone number and dedicated email address were set up for participants to contact with issues or queries. A £10 completion incentive per individual questionnaire was offered. All online responders were emailed a Love2Shop voucher code and postal responders were posted a voucher.[4]

Data processing

Data was collected from two sources: an online questionnaire and a postal questionnaire. The online questionnaire included built-in routing and checks, whereas the postal questionnaire relied on correct navigation by participants and there was no constraint on the answers they could give. The online questionnaire data in its raw form were available immediately to the research team. However, the postal questionnaire data had to be manually recorded as part of a separate process.

A number of rigorous quality assurance processes were utilised when preparing the survey data. These included checks that variables from the two data collection modes had merged correctly into one dataset. As up to four adults per household could answer demographic questions relating to the whole household (for example, household size and information about income), there was potential for differing responses between individuals. The following rules for harmonising household responses were followed, in priority order:

- taking the most common valid answer (such as excluding ‘don’t know’, refusal)

- taking the valid answer from the oldest household member: or where this was not clear, the response of the first household member to complete a questionnaire (online completions first then postal completions).

A further step involved identifying and removing duplicate responses. For this, questionnaires were checked to see if responses to up to two questionnaires were very likely to be from the same individual in a household (based on exact matches for the age, sex and name provided). Suspected duplicates were removed so that only one completed questionnaire from that individual was retained.

[4] Love2Shop vouchers cannot be exchanged for cash and cannot be used for gambling, so do not pose ethical problems for this survey.

Where a household had more than two records, any extra cases were removed according to the following rules:

- fully completed online questionnaires took priority over postal questionnaires
- fully completed postal questionnaires took priority over partially completed online questionnaires
- partially completed online questionnaires took priority over partially completed postal questionnaires
- identifying and removing 'speeders' (individuals who completed the online questionnaire in an unrealistic amount of time for them to have properly engaged with the questions).[5]

The data were then weighted to allow for comparisons with other data sources. The weighting strategy is outlined in NAME OF QUARTERLY REPORT.

Strengths and Limitations

Strengths

- The Gambling Commission's information needs are consolidated into a single survey which ensures consistency and efficiency.
- Collection of data on a rolling basis reduces the impact seasonal events (e.g., FIFA World Cup) may have on key variables (e.g., gambling participation rates).
- The survey has undergone a comprehensive development stage, which included pilot testing, experimental testing, and stakeholder engagement.
- The survey design and large, representative quarterly samples allow the Gambling Commission to report on key results on a quarterly basis as well as to conduct more detailed analyses.
- The push-to-web methodology is more cost effective when compared with face-to-face collection methods.
- The methodology also allows increased numbers of people to be interviewed at relatively lower cost, something that is important for the analysis of gambling harms.

[5] Speeders are identified by calculating the median time it took to answer each question among all those who answered. From this an expected time is calculated for each participant dependent on the questions that they answered. A ratio of actual time compared with expected time is produced and any statistical outliers on this ratio measure are removed.

- A paper alternative to the online survey enabled the recruitment of adults who may have been less technologically literate, not have access to the Internet, or preferred an alternative option, thus increasing the representativeness of the sample.
- Included a broad range of content on gambling that is relevant to both gamblers and non-gamblers.

Limitations

- With a push-to-web methodology, interviewers are not present to collect the data in person and accuracy of answers relies on participants understanding the questions asked and following the instructions.
- Similarly, there is a risk that some participants (although a small proportion) will not following the routing instructions correctly on the paper version of the questionnaire. To minimise the risk, the paper questionnaire was designed with simple routing instructions and further, routing errors were checked and corrected during the office-based data editing process.
- Compared with face-to-face interviewing methods, remote data collection methods typically have lower response rates. However, this is mitigated by issuing a large number of addresses.

Appendix A to contain copies of invitation letters and reminders.

Gambling Experimental Phase Weighting Technical Summary

The Gambling Survey Experimental Phase was weighted to take account of non-response, bias, and improve representativeness. Three weights have been produced for analysis,

1. Step 1 weight (step1_final_wt, n = 5,275),
2. Step 2 weight (step2_final_wt, n = 3,549),
3. Step 1 and 2 weight (step1and2_final_wt, n = 8,824 = 3,549 + 5,275).

For both Step 1 and Step 2 there was no disproportionate sampling, partially completed surveys were included, and both weights followed the same stages,

1. a logistic regression model for non-response within a household (run for households with more than one eligible adult),
2. a calibration to population estimates.

A household non-response model was considered, and tested on the Gambling pilot survey, however it was found it did not meaningfully improve the weights and so was not done for the experimental phase.

For Stage 1, many household and area level variables were tested for association with one or two responses (note the Step 1 survey allowed for some households to have up to 4 respondents, however as very few households gave 3 or more responses, the model was simplified to a logistic regression of either 'one' or 'two or more' responses), including GOR, tenure, socio-economic classification (area only), social grade (area only), education (area only), employment (area only), ethnicity (area only), car ownership (area only), urban-rural classification, number of adults, number of children, income, household type, age, output area classification, population density, and index of multiple deprivation. For Step 2 households were assigned one of three slightly different questionnaires, a variable indicating which questionnaire a household received was also tested for association.

The final non-response model for Step 1 included, GOR, household income, household tenure, and household member of retirement age. Step 2 included, GOR, household income, household type, and output area classification. The predicted probabilities from the models were used to create non-response weights for households with more than one eligible adult. Both weights were checked for outliers and left untrimmed. Weights for responding households with only one eligible adult were set to 1.

The non-response weights were then calibrated to estimates of the eligible population. Calibration weighting adjusts the weights so that characteristics of the weighted achieved sample match population estimates, reducing bias. Population figures for calibration were taken from, the ONS mid-year population estimates[1], the ONS Index of

[1] https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalesscotlandandnorthernireland, Mid-2020 for Step 1, Mid-2021 for Step 2

Multiple Deprivation (IMD) estimates[2], and the most recent Labour Force Survey[3], as Step 2 happened a few months after Step 1, more up to date population estimates were available and used. Both the Step 1 and Step 2 calibration stages used the same variables: age, sex, GOR, IMD, tenure, ethnicity, and education. For Step 1 dropping tenure and education from the calibration was tested, but it did not meaningful improve the weights, and so was not used.

After calibration, both weights were checked for outliers but left untrimmed. To produce the combined weight for step 1 and step 2, the separate step 1, and step 2 weights, were simply stacked then checked for bias and outliers, and it was found no changes were needed. A summary of the design effects and other statistics of the weights can be found in the table below,

Weight	N	Design Effect (2d.p.)	Effective sample size (0d.p.)	Efficiency (0d.p.)
Step 1	5,275	1.33	3,955	75%
Step 2	3,549	1.29	2,750	77%
Step 1 and 2	8,824	1.32	6,703	76%

The Step 3 weight will use a similar methodology.

[2] https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/adhocs/13773populationsbyindexofmultipledeprivationimddecileenglandandwales2020, for England and Wales, and https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-estimates/2011-based-special-area-population-estimates/population-estimates-by-simd-2016, Table 1, for both Step 1 and Step 2

[3] beta.ukdataservice.ac.uk/datacatalogue/series/series?id=2000026, GN 33246, 8999 April-June 2022 Step 1, 9027 July-September 2022 Step 2

From: Sturgis,P
To: [redacted]
Subject: Re: Review of Gambling Survey for Great Britain
Date: 28 October 2023 09:27:43

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Many thanks for this [redacted] this is a much better arrangement. Look forward to reading them! Have a good week off. Best,

Patrick

> On 27 Oct 2023, at 15:48, [redacted] <[redacted]@gamblingcommission.gov.uk> wrote:
>
> Hi Patrick
>
> I've checked with our Information Management team and they are content with me removing commercially sensitive information from any shared documents as opposed to you signing an NDA, sorry for the confusion. I think the only commercially sensitive document will be the original proposal as everything else is likely to be publicly available information (I am just figuring out how I can edit the pdf to redact the commercially sensitive bits!)
>
> I have attached copies of the weighting summaries for the Step 1,2 and 3 experiments. Step 3 is the most important as this is the one we will be rolling out on a permanent basis.
>
> I have also attached a copy of the draft technical report for the mainstage GSGB that is in field at the moment, we are still in the process of drafting this with NatCen so there are a few comments still in it but hopefully it should give you what you need in terms of methodology and sample design. I'm happy to share the next draft of this with you when we get it as we are hoping to build out the strengths and limitations sections.
>
> We will also be publishing some of the findings from the Step 3 experiment on the 23 November, the publication will contain data tables for gambling participation, reasons for gambling and PGSI scores. This should be useful as this was essentially a dry run of the mainstage GSGB. Unfortunately I can't share the findings with you before the 23 November as they are classed as official statistics in development but as soon as they are published I will let you have a copy.
>
> [redacted] if there is anything else you need let me know and I'll pick it up [redacted]
>
> Thanks
>
> [redacted]
>
> ---
>
> **From:** Sturgis,P [redacted]@lse.ac.uk>
> **Sent:** Wednesday, October 25, 2023 5:03 PM
> **To:** [redacted] <[redacted]@gamblingcommission.gov.uk>
> **Subject:** Re: Review of Gambling Survey for Great Britain
>
> **CAUTION:** This email is from an external source - be careful of attachments and links
>
> Hello [redacted] I don't mind in principle signing a NDA but there is no need for me to see anything that it would not be possible to include in my report. So, I would have thought that a better approach would be to remove any commercial sensitive information from the documents that you send me. Would that be possible? If not I would be concerned about knowing what information the NDA does and does not cover given the purpose of me having it is to write a report that will presumably be published. Best wishes,
>
> Patrick
>
> > On 25 Oct 2023, at 13:51, [redacted] <[redacted]@gamblingcommission.gov.uk> wrote:
> >
> > Hi Patrick
> >
> > I've checked with NatCen and they are happy for me to share a copy of their proposal with you, and

have also suggested a couple of other documents that might be useful to share. However due to the commercial sensitivity of the proposal document, I've been advised by our Information Management team that we will need to put an NDA in place.

I have attached a signed NDA which I am hoping you will be able to sign and return to me, so I can then share the documents outlined above.

Thanks

[redacted]

From: [redacted]
Sent: Friday, October 20, 2023 9:53 AM
To: Sturgis,P [redacted]@lse.ac.uk>
Subject: RE: Review of Gambling Survey for Great Britain

Hi Patrick

Thanks for the email.

I have attached copies of the consultation document (GC methodology consultation) and the ITT (21-019 Specification).

I have contacted NatCen to see if they are happy for me to share a copy of their proposal which contains full details of the sample design and methodology, we may possibly need to set up an MOU agreement with you before we can share this. We are also currently working on technical reports which will be published alongside the data when we launch the GSGB, these are draft at the moment but again may be useful to share with you if NatCen are happy for us to do so.

If it would be useful to set up a meeting to discuss any outstanding questions then more than happy to do this.

I'll get back in touch as soon as I have heard from NatCen.

Thanks

[redacted]

From: Sturgis,P <[redacted]@lse.ac.uk>
Sent: Wednesday, October 18, 2023 3:57 PM
To: [redacted] [redacted]@gamblingcommission.gov.uk>
Subject: Re: Review of Gambling Survey for Great Britain

Hello [redacted] I have had a read through the documents on the website. It may be that I am looking in the wrong place but there are a couple of documents that I wasn't able to locate that it would be useful for me to have. These are the initial consultation document that respondents were asked to respond to and the Invitation to Tender document. Additionally, there does not seem to be a full specification of the sample design and methodology for the main stage GSGB that is currently in the field. Would it be possible for me to have these?

Best wishes,

Patrick

From: Sturgis,P
To: [redacted]
Subject: Read: INVITATION: Online discussion and user testing - Gambling Survey for Great Britain
Date: 02 November 2023 14:05:21
Attachments: Read INVITATION Online discussion and user testing - Gambling Survey for Great Britain.msg

---

From: [redacted]
To: Sturgis,P
Subject: RE: Publication next Thurs (23rd)
Date: 17 November 2023 16:27:00

Brilliant, thank you!

From: Sturgis,P <[redacted]@lse.ac.uk>
Sent: Friday, November 17, 2023 4:14 PM
To: [redacted] <[redacted]@gamblingcommission.gov.uk>
Subject: Re: Publication next Thurs (23rd)

Hello [redacted] yes I am happy for you to include that in the blog. Best wishes,

Patrick

> On 17 Nov 2023, at 12:55, [redacted] <[redacted]@gamblingcommission.gov.uk> wrote:
>
> Hi Patrick
>
> Hope you are well and things are progressing with the GSGB review.
>
> As I mentioned previously we are releasing some of the data from the Step 3 experiment next Thursday (23rd).
>
> Alongside this we will be publishing a blog which explains what we mean by experimental statistics and next steps in the project. We'd like to make reference to the work you are doing for us, but wanted to check this was OK with you first? We are planning to say the following:
>
> *The experimental statistics we are publishing today are based on responses from around 4,000 respondents with data collected in April and May 2023. The purpose of publishing them is so users can become familiar with and understand the impact of new methods and approaches on the findings before they become official statistics. To help with this we have also commissioned Professor Patrick Sturgis to undertake an independent review of the Gambling Survey for Great Britain methodology and we'll publish his findings early next year.*
>
> Would you be OK with us including this in the blog?
>
> Thanks
>
> [redacted]
>
> [redacted]

From: [redacted]
To: Sturgis,P
Subject: RE: GSGB Step 3 data
Date: 13 December 2023 08:55:00

Hi Patrick

I have just sent a meeting invite through for next Weds.

Look forward to speaking to you.

Thanks

[redacted]

From: Sturgis,P <[redacted]@lse.ac.uk>
Sent: Wednesday, December 13, 2023 7:30 AM
To: [redacted]@gamblingcommission.gov.uk>
Subject: Re: GSGB Step 3 data

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No problem [redacted] I am free on Wednesday next week and available most of the day. Best,

Patrick

> On 12 Dec 2023, at 16:54, [redacted] <[redacted]@gamblingcommission.gov.uk> wrote:
>
> Hi Patrick
>
> Apologies its been a bit busy since we released the data with various stakeholder engagement taking place.
>
> I think it would be useful to have a catch up, to hear how your work is progressing and if there is any other data we can provide from the Step 3 experiment that would be useful.
>
> How are you fixed next Weds or Thurs afternoon? (20th/21st)
>
> Thanks
>
> [redacted]
>
> ---
>
> **From:** Sturgis,P <[redacted]@lse.ac.uk>
> **Sent:** Tuesday, December 12, 2023 2:08 PM
> **To:** [redacted] <[redacted]@gamblingcommission.gov.uk>
> **Subject:** Re: GSGB Step 3 data
>
> **CAUTION:** This email is from an external source - be careful of attachments and links
>
> Hello [redacted] just following up on this - did you want to chat about the additional

analyses? Best,

Patrick

On 23 Nov 2023, at 19:35, Sturgis,P [redacted]@lse.ac.uk> wrote:

Hello [redacted] I've been tied up all day but just looked at the Guardian and saw the front page! Very interesting, will try to get to this tomorrow but have quite a lot of competing things. A catchup would be good next week some time if that works for you. Best,

Patrick

On 23 Nov 2023, at 10:52, [redacted]
<[redacted]@gamblingcommission.gov.uk> wrote:

Hi Patrick

Hope you are well.

Today we have published the data from the final step of the experimental phase of the GSGB project, this can be found on our website here Gambling participation and the prevalence of problem gambling survey: Final experimental statistics stage (Step 3) (gamblingcommission.gov.uk)

You'll see there are some data tables available via the publication, but I suspect it might be interesting for you to have access to slightly more data.

For example there are some interesting differences in the responses between postal and online respondents which might be interesting to look at from a methodological point of view.

Let me know if you want to have a quick catch up to discuss this latest data.

Thanks

[redacted]

<image001.jpg> [redacted]

www.gamblingcommission.gov.uk

<image002.png>

From: [redacted]
To: [redacted]; Sturgis,P
Subject: Review of GSGB methodology

Hi Patrick

As discussed, some time for us to catch up on how your work is progressing and whether we can provide any more data from the Step 3 experimental data that would be useful.

Thanks

[redacted]

Microsoft Teams meeting

Join on your computer, mobile app or room device

Click here to join the meeting <https://teams.microsoft.com/l/meetup-join/19%3ameeting_ZDJkYjg1NTMtYWJlNi00NTJmLWE3NGYtYzk4OWU2ZTMxMWM0%40thread.v2/0?context=%7b%22Tid%22%3a%227dddff92-1de6-4835-9963-84e7cc44cea2%22%2c%22Oid%22%3a%2298e29d3d-eda8-476f-a2d4-0ea0bda5529b%22%7d>

Meeting ID: 367 486 143 542
Passcode: MGp69n

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From: [redacted]
To: Sturgis,P
Subject: GSGB Methodology Review
Date: 20 December 2023 17:42:00
Attachments: Online vs Web Step 3.pptx
GSGB Y1 static technical report_to GC__131223.docx
image002.png

Hi Patrick

Thanks for the catch up earlier.

I have attached a copy of the slides I ran through in our meeting which show some of the differences between online and paper respondents.

I have also attached a copy of the latest technical report we have been working on with NatCen which we plan to publish in February along with the first set of statistics from the mainstage.

I'll speak to our Governance team about sharing the raw data from the Step 3 experiment with you and work out what paperwork we need to put in place.

Have a great Christmas

[redacted]

GAMBLING COMMISSION
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Making gambling safer, fairer and crime free

Introduction

This technical report provides detail on the background and methodology for Year 1 of the Gambling Survey for Great Britain (GSGB). Detail on the issued sample size, response and weighting strategy for each wave is provided in the wave-specific report. The wave-specific reports also provide detail of the online and postal questionnaires used in that wave.

Background

Year 1 of the GSGB follows a period of development which has consisted of a pilot and experimental stage. Findings from the pilot were published in May 2022 and are reported in Participation and Prevalence: Pilot methodology review report (gamblingcommission.gov.uk) (opens in a new Tab). Two reports on findings from the experimental phase have been published. The first report, covering the first two steps, was published in April 2023 (Gambling participation and the prevalence of problem gambling survey: Experimental statistics stage report (opens in a new Tab)). A further report, covering the final step, was published in November 2023 (Gambling participation and the prevalence of problem gambling survey: Final experimental statistics stage (Step 3) (gamblingcommission.gov.uk) (opens in a new tab)). Following the completion of the experimental phase, the survey moved to continuous official statistics data collection in July 2023.

Survey objectives

The aims of the GSGB are to:

- collect data on a wide range of gambling behaviours, including participation and the experience of problem gambling and gambling harms, from 20,000 individuals aged 18 years and over annually
- provide a rolling programme of data collection to give the Commission the ability to gain timely insights and respond to emerging trends
- produce and publish gambling participation and prevalence statistics as official statistics, in accordance with the standards set out by the Government Statistical Service in the Code of Practice for Statistics. (opens in new tab)

Survey design

The GSGB uses what is known as a push-to-web approach, in which people are first encouraged to take part online, completing a web questionnaire. Those who do not initially take part online are subsequently offered an alternative

means of participation. In the GSGB this alternative was a paper questionnaire, sent by post. By offering an alternative, the survey can include people who are not online or who do not feel willing or able to go online to take part. This helps improve the representativeness of the survey. Moreover, some gambling behaviours, notably the propensity to gamble online, are correlated with the probability to take part in online surveys, which can bias results[1].

Inviting people to take part in the GSGB involved randomly selecting addresses within Great Britain, known as random probability sampling. This approach is discussed further in the next section.

[1] Sturgis, P., & Kuha, J. (2022). How survey mode affects estimates of the prevalence of gambling harm: a multisurvey study. *Public Health*, *204*, 63-69.

Methodology

Sampling strategy

A high-quality sample is essential for meeting the Commission's aims of creating a nationally representative new survey, capable of producing robust population estimates. To achieve this, a stratified random probability sample of addresses in Great Britain (GB) was used. The target population of the survey was adults aged 18 years and over, living in private households within GB.

There is no publicly available list of the GB adult population that can be used for sampling individuals. Instead, like many national surveys, the Postcode Address File (PAF) was used. The PAF is compiled by the Post Office and lists postal addresses (or postcode delivery points) in the United Kingdom.

To get from a list of addresses to a selection of adults within them, involves a two-stage selection process:

- Selection of addresses from the PAF
- Selection of adults within addresses

Selection of addresses from the PAF

Prior to selection, the sample frame was stratified (ordered): this can help to reduce sampling error and thus increase the precision of estimates, as well as ensuring representativeness with respect to the measures used. The following measures for stratification (in order) were: Country and English region; Population density at Local Authority level and overall Index of Multiple Deprivation (IMD) score[2].

At each sampled address, there may have been more than one dwelling and/or household. However, a random selection of households is very difficult to operationalise without an interviewer and there was no control over which household opened the invitation letter. As a result, in multi-occupied addresses, no formal household selection took place and the selection of which household took part was left to chance (that is, whichever household opened the letter). The overall proportion of multi-occupied addresses for PAF samples is very small (around 1%), and it is therefore unlikely to lead to any systematic error (known as bias) in the responding sample.

[2] Indices of multiple deprivation (IMD) is a measure of relative deprivation for small, fixed geographic areas of the UK. Separate indices are produced for each UK country. IMD classifies these areas into five quintiles based on relative disadvantage, with quintile one being the most deprived and quintile five being the least deprived.

Selection of adults within addresses

At each address, up to two adults (aged 18 years and over) could take part. If the household contained three or more adults, the instruction was that the two adults with the most recent birthday should complete questionnaires.

Asking a set number of adults (in the case of this survey, two) rather than all adults from each address to complete the survey is a well-established approach for push-to-web surveys in GB[3]. Most residential addresses (85%) contain either one or two adults, meaning that exclusion of additional adults should not introduce any notable error (known as selection bias). Under this approach, it is estimated that 93% of the sample are the ones that would have been selected using a random approach.

While this approach leads to a degree of within-household clustering, the effect of this is lower than if all adults per household were eligible though will be higher than if just one adult per household was selected. Moreover, the slight inefficiency at this stage is outweighed by the higher number of productive cases achieved from asking up to two adults from each address to complete the survey instead of only one.

Mailing strategy

As a push-to-web survey using a PAF sample, the GSGB is reliant on sending invitation letters to perspective participants. The following participant engagement strategy was used; each item was sent to selected addresses in the post:

- invitation letter including a survey-specific Uniform Resource Locator (URL) and two sets of login details needed to access the online questionnaire. The letter also contained two Quick Response (QR) codes which provided an alternative method for accessing the online questionnaire. Instructions on what to do if more than two adults lived

[2] In the Experimental Phase, the effect on data quality and selection bias of inviting a maximum of two or a maximum of four adults from each household to take part in the survey was investigated. There was no discernible experimental condition effect on household response rates, duplications nor gambling participation rates. There was evidence of significant clustering of gambling behaviours among households with three or four participants. As this can impact on the accuracy of the gambling participation data the recommendation was to invite up to two adults per household to take part going forward.[4] See for example Church, A. (1993). Estimating the effect of incentives on mail survey response rates: A meta-analysis. Public Opinion Quarterly; 57:62-79. Mercer, A., Caporaso, A., Cantor, D. and Townsend, R. (2015). How Much Gets You How Much? Monetary Incentives and Response Rates in Household Surveys. Public Opinion Quarterly 79 (1):105-29. Pengli Jia, Luis Furuya-Kanamori, Zong-Shi Qin, Peng-Yan Jia, Chang Xu, Association between response rates and monetary incentives in sample study: a systematic review and meta-analysis, *Postgraduate Medical Journal*, Volume 97, Issue 1150, August 2021, Pages 501–510

in the household were also included in the letter. Addresses in Wales received the letter in both Welsh and English.

- first reminder letter (this contained similar information to the initial invitation letter)
- second reminder letter with two postal questionnaires and return envelopes
- third reminder letter

The invitation letter and reminders - provided in Appendix A - were the main levers to convince people, including those who did not gamble, to take part. All were carefully designed following evidence-informed participant engagement guidance for online surveys published by the Office for National Statistics (ONS) (Participant engagement for push-to-web social surveys – Government Analysis Function (civilservice.gov.uk).

Experience shows that most people complete a survey within a few days of receiving the request. The time between each mailing was therefore kept as short as possible, to ensure that the request was fresh in people's mind. A gap of around 10 days between mailings was introduced, to allow removal of responding participants from the sample for the reminders. The day of the week of the mailing was varied to allow for the fact that different people may have time for survey participation on different days of the week.

A study website, freephone number and dedicated email address were set up for participants to contact with issues or queries. The use of monetary incentives in surveys has been proven to increase response rates[4]. A £10 completion incentive per individual questionnaire was offered. This took the form of a Love2Shop voucher. Those who responded online were emailed a Love2Shop voucher code. Those who completed the postal questionnaire received a physical Love2Shop voucher by post[5].

[4] See for example Church, A. (1993). Estimating the effect of incentives on mail survey response rates: A meta-analysis. Public Opinion Quarterly; 57:62-79. Mercer, A., Caporaso, A., Cantor, D. and Townsend, R. (2015). How Much Gets You How Much? Monetary Incentives and Response Rates in Household Surveys. Public Opinion Quarterly 79 (1):105-29. Pengli Jia, Luis Furuya-Kanamori, Zong-Shi Qin, Peng-Yan Jia, Chang Xu, Association between response rates and monetary incentives in sample study: a systematic review and meta-analysis, *Postgraduate Medical Journal*, Volume 97, Issue 1150, August 2021, Pages 501–510

[5] Love2Shop vouchers cannot be exchanged for cash and cannot be used for gambling, so do not pose ethical problems for this survey.

Data collection

The aim was to achieve a sample size of 5,000 completed individual questionnaires per wave. To ensure a spread of completions throughout the data collection period, the sample for each wave was divided into two batches and issued at equal intervals (with minimal overlap between batches and waves).

Fieldwork dates for waves 1 and 2 were as follows (the first date for each wave refers to when invitation letters were posted; the latter date refers to the final date returned postal questionnaires were accepted):

- wave 1 - 31 July 2023 to 16 November 2023
- wave 2 - 6 November 2023 to 7 March 2024

Questionnaire content and design

The postal questionnaire was designed to be as comparable as possible to the online questionnaire. This approach was taken to minimise the albeit low risk of differences arising in the visual presentation of the two questionnaires, which could lead to differences in the ways in which questions were understood and answered (known as measurement differences).

Some differences between the two questionnaires remained. The online questionnaire included complex routing and dynamic adjustment of question wording that reflected the participant's answers to earlier questions. This could not be replicated in the postal questionnaire. Moreover, to design a postal questionnaire that participants would find straightforward to complete within the required page limit, some questions asked in the online questionnaire were omitted from the postal version.

The questionnaires contained core and modular content. The core content was asked every wave and included some of the official statistics measures. Modular questions are asked on a rotating basis as required by the Commission and include topical questions or those related to the development of specific policies.

Core content included:

- leisure activities, internet access and use
- gambling activities participated in in-person and online in the last 12 months and in the past four weeks

- Problem Gambling Severity Index (PGSI)[6]
- own gambling harms and harms from others' gambling[7]
- reasons for gambling
- how gambling makes participants feel;
- health and wellbeing, including general health, smoking and drinking status, impulsivity scale, Short Warwick-Edinburgh Mental Well-Being Scale (SWEMWBS) and suicidality questions

Modular content covers, but is not limited to:

- gambling management tools and complaints
- illegal gambling
- fairness and trustworthiness of gambling
- typologies (online participants only)
- gambling binge (online participants only)
- advertising and social media
- attitudes towards gambling (ATGS-8)

Demographic information captured:

- sex, gender identity, date of birth, age, ethnicity, number of adults and children in the household, marital/registered civil partnership status, household income, tenure, education level, economic activity)[8]

Data processing

Data was collected from two sources: an online questionnaire and a postal questionnaire. The online questionnaire included built-in routing and checks, whereas the postal questionnaire relied on correct navigation by participants and there was no constraint on the answers they could give. The online questionnaire data in its raw form were available immediately to the research team. However, the postal

[6] The PGSI consists of nine items and each item is assessed on a four-point scale: never, sometimes, most of the time, almost always. Responses to each item are given the following scores: never = zero, sometimes = one, most of the time = two, almost always = three. When scores to each item are summed, a total score ranging from 0 to 27 is possible. A PGSI score of eight or more represents a problem gambler. See Problem gambling screens (gamblingcommission.gov.uk) for full detail.

[7] The Commission is conducting work to develop and test a series of survey questions aimed at collecting data on the experience of gambling harms. Full detail on the work undertaken to date and the next steps can be found at Statistics and research series (gamblingcommission.gov.uk).

[8] Demographic questions align to the GSS harmonisation strategy which promotes consistent definitions and question wording in data collection.

questionnaire data had to be manually recorded as part of a separate process.

A number of rigorous quality assurance processes were utilised when preparing the survey data. These included checks that variables from the two data collection modes had merged correctly into one dataset. As up to two adults per household could answer demographic questions relating to the whole household (for example, household size and information about income), there was potential for differing responses between individuals. The following rules for harmonising household responses were followed, in priority order:

- taking the most common valid answer (such as excluding ‘don’t know’, refusal)
- taking the valid answer from the oldest household member: or where this was not clear, the response of the first household member to complete a questionnaire (online completions first then postal completions).

A further step involved identifying and removing duplicate responses. For this, questionnaires were checked to see if responses to up to two questionnaires were very likely to be from the same individual in a household (based on exact matches for the age, sex and name provided). Suspected duplicates were removed so that only one completed questionnaire from that individual was retained.

Where a household had more than two records, any extra cases were removed according to the following rules:

- fully completed online questionnaires took priority over postal questionnaires
- fully completed postal questionnaires took priority over partially completed online questionnaires
- partially completed online questionnaires took priority over partially completed postal questionnaires

‘Speeders’ (individuals who completed the online questionnaire in an unrealistic amount of time for them to have properly engaged with the questions) were identified and removed from the dataset[9].

[9] Speeders are identified by calculating the median time it took to answer each question among all those who answered. From this an expected time is calculated for each participant dependent on the questions that they answered. A ratio of actual time compared with expected time is produced and any statistical outliers on this ratio measure are removed.

The data were then weighted to allow for comparisons with other data sources. The weighting strategy is outlined in NAME OF WAVE REPORT. Data will be deposited at UK Data Service UK Data Service (opens in a new tab) after each annual publication.

Data analysis and reporting

Accuracy and reliability of survey estimates

The GSGB, in common with other surveys, collects information from a sample of the population. The sample is designed to represent the whole population of adults aged 18 years and over living in private households in GB, as accurately as possible within practical constraints, such as time and cost. Consequently, statistics based on the survey are estimates, rather than precise figures, and are subject to a margin of error, also known as a 95% confidence interval. For example, the survey estimate might be 15% with a 95% confidence interval of 13% to 17%. A different sample might have given a different estimate, but it would be expected that the true value of the statistic in the population would be within the range given by the 95% confidence interval in 95 cases out of 100. Confidence intervals are affected by the size of the sample on which the estimate is based. Generally, the larger the sample, the smaller the confidence interval, and hence the more precise the estimate.

Confidence intervals are quoted for key statistics within GSGB reports. Where differences are commented on, these reflect the same degree of certainty that these differences are real, and not just within the margins of sampling error. These differences can be described as statistically significant[10].

Strengths and Limitations

When commissioning the GSGB, the Commission weighed a range of strengths and limitations of the new approach. These are summarised in this section.

Strengths

- The Commission's information needs are consolidated into a single survey (rather than several surveys as previously) which ensures consistency and efficiency.
- Collection of data on a rolling basis and producing annual datasets and trends reduces the impact seasonal events (such as the FIFA World Cup) may have on key variables (for example, gambling participation rates).
- The survey has undergone a comprehensive development stage, led by experts in the field. Development included cognitive testing, pilot testing, experimental testing, and stakeholder engagement.

[10] Statistical significance does not imply substantive importance; differences that are statistically significant are not necessarily meaningful or relevant.

- The survey design and large, representative samples (per wave) allow the Commission to report on key results on a quarterly basis as well as to conduct more detailed analyses.
- The push-to-web methodology is more cost effective when compared with face-to-face collection methods.
- The methodology also allows increased numbers of people to be interviewed at relatively lower cost, something that is important for the analysis of gambling harms.
- A postal alternative to the online questionnaire enabled the recruitment of adults who may have been less technologically literate, not have access to the Internet, or preferred an alternative option, thus increasing the representativeness of the sample.
- The survey includes a broad range of content on gambling that is relevant to both gamblers and non-gamblers.
- The self-administered data collection methods are likely to mitigate social desirability in responses to questions about sensitive topics (for example, about their gambling behaviour).
- As the survey is 'gambling focused', it means more detail can be collected about gambling behaviours than is possible in a more general survey, where the number of questions that can be included is limited.

Limitations

- With a push-to-web methodology, interviewers are not present to collect the data in person and accuracy of answers relies on participants understanding the questions asked and following the instructions.
- Similarly, there is a risk that some participants (although a small proportion) will not following the routing instructions correctly on the postal version of the questionnaire. To minimise the risk, the postal questionnaire was designed with simple routing instructions and further, routing errors were checked and corrected during the office-based data editing process.
- Compared with face-to-face interviewing methods, remote data collection methods typically have lower response rates, meaning they are potentially more susceptible to non-response bias. However, response rates for face-face interviews are also declining meaning these studies are also subject to non-response bias[11].

[11] For example, in 2021, the Health Survey for England (HSE) household response rate was 32% compared with 60% in 2015 and 59% in 2018.

- As the GSGB is ‘gambling focused’, it is possible that the survey disproportionately attracts those who gamble, so that this group may be over-represented.

Caveats for interpreting estimates generated by the Problem Gambling Severity Index (PGSI)

The GSGB will produce new estimates of those scoring 1 to 2, 3 to 7 and 8 or higher on the Problem Gambling Severity Index (PGSI). No survey methodology is perfect; different surveys measuring the same phenomena will provide different estimates because variances in survey design and administration can affect both who takes part and how people answer these questions. Until 2010, data on gambling was captured through the bespoke British Gambling Prevalence Survey (BGPS) series (conducted in 1999, 2007 and 2010). Originally intended to be a tri-annual survey, funding for the BGPS was cut in 2011. The Commission then sought different ways to capture information about gambling within available budgets. Between 2012 and 2021, the primary method of measuring scores according to the PGSI (as well as a second measurement instrument, the DSM-IV) was through the Health Survey for England (HSE series) and the Scottish Health Survey. The GSGB picks up where the BGPS left off by being a bespoke gambling survey that captures a wide range of information about gambling across the whole of Great Britain. However, the methodology for the new GSGB differs from the BGSP and the health survey series in a number of ways. In the remainder of this section, a range of considerations for all surveys, that may either serve to under-estimate or over-estimate the PGSI estimates, are considered.

Factors which may mean PGSI estimates are under-estimated in household-based surveys

Coverage error

Using the PAF as a sample frame is common on large-scale surveys, including the BGPS, the GSGB and the health survey series. This means that only those living in private households are eligible to be included in the survey. People living in student halls of residence, military barracks, hospitals, prisons and other institutions are excluded. Some of these populations may have higher rates of gambling and higher PGSI scores. All studies using the PAF as a sample frame inherit this source of bias.

Social desirability bias

This bias in founded on the idea that there are social norms that govern certain behaviours and attitudes, and that people may misrepresent themselves so as to appear to conform to these norms[12]. In the survey context, this misrepresentation may involve participants explicitly deciding to give false information or modifying their in-mind answer. However, it can also involve participants giving information that they believe to be true but is in fact inaccurate[13]. It is a potential risk for all surveys that collect information on sensitive topics, including the health survey series and the GSGB. Sensitive topics include those that:

- may be perceived as an invasion of privacy (for example, asking about frequency of gambling)
- involve a disclosure risk where there could be repercussions for the participant as a result of responding (for example, asking about criminal behaviour), or
- have to admit to breaking a perceived social norm (for example, asking about alcohol consumption).

One strategy to reduce the risk of social desirability bias is to use self-completion methods. These methods include online and postal questionnaires, which are completed by the participant. Self-completion methods are used on both the health survey series and the GSGB to collect information on gambling. However, the surveys differ in the way in which self-completion methods are used, which may affect resulting estimates. The health survey series is an interviewer-administered survey that includes a paper self-completion questionnaire to ask about gambling behaviour. This is typically completed by participants in the presence of the interviewer and potentially other household members, who also take part in the survey. Sturgis and Kuha[14] noted that it is possible that the presence of an interviewer or other household members might lead to underreporting of gambling in the self-completion questionnaire. Their analysis did not find a statistically significant difference in the proportion of people with a PGSI score of 1 or more within HSE data, depending on whether other people were present at the time the gambling questions were being completed. However, subsequent analysis of HSE 2018 data conducted for the GSGB pilot, using multi-variate regression models, found that the odds of having an PGSI of 1+ were 1.5 times higher among those who did not have other household members present at the point of interview[15]. The authors

[12] Kreuter, F., Presser, S. and Tourangeau, R. (2008) 'Social Desirability Bias in CATI, IVR, and Web Surveys: The Effects of Mode and Question Sensitivity', Public Opinion Quarterly, 72(5), pp. 847–865.
[13] Tourangeau, R. and Yan, T. (2007) 'Sensitive Questions in Surveys', *Psychological Bulletin*, 133(5), pp. 859–883.
[14] Sturgis, P., & Kuha, J. (2022). How survey mode affects estimates of the prevalence of gambling harm: a multisurvey study. Public Health, 204, 63-69.
[15] Ashford, R., Bates, B., Bergli C et al (2022) Gambling participation and the prevalence of problem gambling survey: Pilot stage Methodology review report. National Centre for Social Research: London.

concluded that the online methods of GSGB may offer greater privacy to participants, and thus reduce social desirability bias.

Non-response/selection bias

During the stakeholder engagement sessions conducted for the GSGB, those with lived experience of gambling harms stated that they would have been unlikely to participate in a survey when they were experiencing gambling difficulties. Evidence supporting this is provided by analysis on non-response of the 2007 and 2010 BGPS series. In 2007, Scholes et al demonstrated a strong relationship between the factors predicting household non-response and gambling frequency: area and household-level factors which predicted lower household response were associated with higher gambling frequency. This suggests that those households less likely to take part in surveys were more likely to contain frequent gamblers[16]. Similar analysis conducted for the BGPS 2010 (reported in Wardle et al, 2014)[17] demonstrated that households which either a) required multiple attempts to contact; b) were reissued after multiple follow-up attempts or, c) were followed-up by telephone interviewers after the face-to-face interviewer had been unable to make contact were more likely to contain people who gambled. This supports the notion that very engaged gamblers may be less likely to take part in surveys overall. This is likely to apply to all surveys. However, both the health surveys and the GSGB are likely subject to different selection biases, see below).

Question instruments to measure the negative impacts of gambling

The measurement of experience of so-called problem gambling is via a series of questions known as “screens”. Multiple different screens to measure the experience of problem gambling exist. No screen is perfect. In the BGPS and health survey series, two different screening instruments have been used: the DSM-IV and the PGSI (Problem gambling screens (gamblingcommission.gov.uk) https://www.gamblingcommission.gov.uk/statistics-and-research/publication/problem-gambling-screens (opens in a new tab).

Analysis of these screens shows that they capture different groups of people with potentially different types of problems. Orford et al suggested that the PGSI, especially among women, may underestimate certain forms of gambling

[16] Scholes, S., Wardle, H., Sproston, K., et al (2008) *Understanding non-response to the British Gambling Prevalence Survey 2007*. Technical Report. National Centre for Social Research, London

[17] Wardle, H., Seabury, C., Ahmed, H et al (2014). Gambling Behaviour in England and Scotland. Findings from the Health Survey for England 2012 and the Scottish Health Survey 2012. National Centre for Social Research: London. Available at: https://prism.ucalgary.ca/server/api/core/bitstreams/491f55f9-61e9-4185-8a1f-c6d402675403/content

harms which the DSM-IV is better suited to measure[18]. For this reason, the BGPS and health survey series always included both the DSM-IV and PGSI screens. The rates of problem gambling reported by the PGSI are lower than those reported by the DSM-IV. Since the BGPS was developed, the PGSI has become one of the most widely used screens, particularly because it presents scores on a spectrum of severity. In addition, there is now greater focus on the wider range of negative consequences associated with gambling which are not captured by the PGSI or the DSM-IV. During consultation on the GSGB questionnaire content, stakeholders strongly suggested that it would be appropriate to include only one screen for problem gambling and to use additional questionnaire space to capture other important aspects of gambling experiences. Thus, the GSGB only includes the PGSI screen, which generates lower estimates of problem gambling than the DSM-IV.

Factors which may mean PGSI estimates are over-estimated within bespoke gambling studies

Non-response bias/selection bias

How surveys are presented to potential participants can influence who takes part. Williams and Volberg[19] conducted an experiment presenting the same survey to potential participants but varying its description – introducing it either as a health and recreation survey or a gambling survey. The found that rates of problem gambling were higher in the latter. This is likely because people who gamble are more likely to take part in a gambling survey because it is relevant to them. The GSGB likely suffers from this selection bias compared with the health survey series. Ethically, the GSGB invite letter has to inform people what the study is about which thus may make it more attractive to those who gamble. Despite best efforts to reduce this possibility, it is likely that some selection bias remains and thus that rates of past-year gambling participation and PGSI scores are higher in the GSGB compared with the health survey series.

In addition, analysis conducted by Sturgis and Kaha[20] and also, Ashford et al (the latter for the GSGB pilot: reported in Participation and Prevalence: Pilot methodology review report (gamblingcommission.gov.uk) (opens in a new Tab)) found that those who completed PGSI questions online had higher PGSI scores than those who completed the questions via an alternative mode. In short,

[18] Orford, J., Wardle, H., Griffiths, M., Sproston, M., Erens, B. (2010) PGSI and DSM-IV in the 2007 British Gambling Prevalence Survey: reliability, item response, factor structure and inter-scale agreement, International Gambling Studies, 10:1, 31-44.
[19] Williams, R. J., & Volberg, R. A. (2009). Impact of survey description, administration format, and exclusionary criteria on population prevalence rates of problem gambling. *International Gambling Studies, 9*(2), 101–117.
[20] Sturgis, P., & Kuha, J. (2022). How survey mode affects estimates of the prevalence of gambling harm: a multisurvey study. Public Health, 204, 63-69.

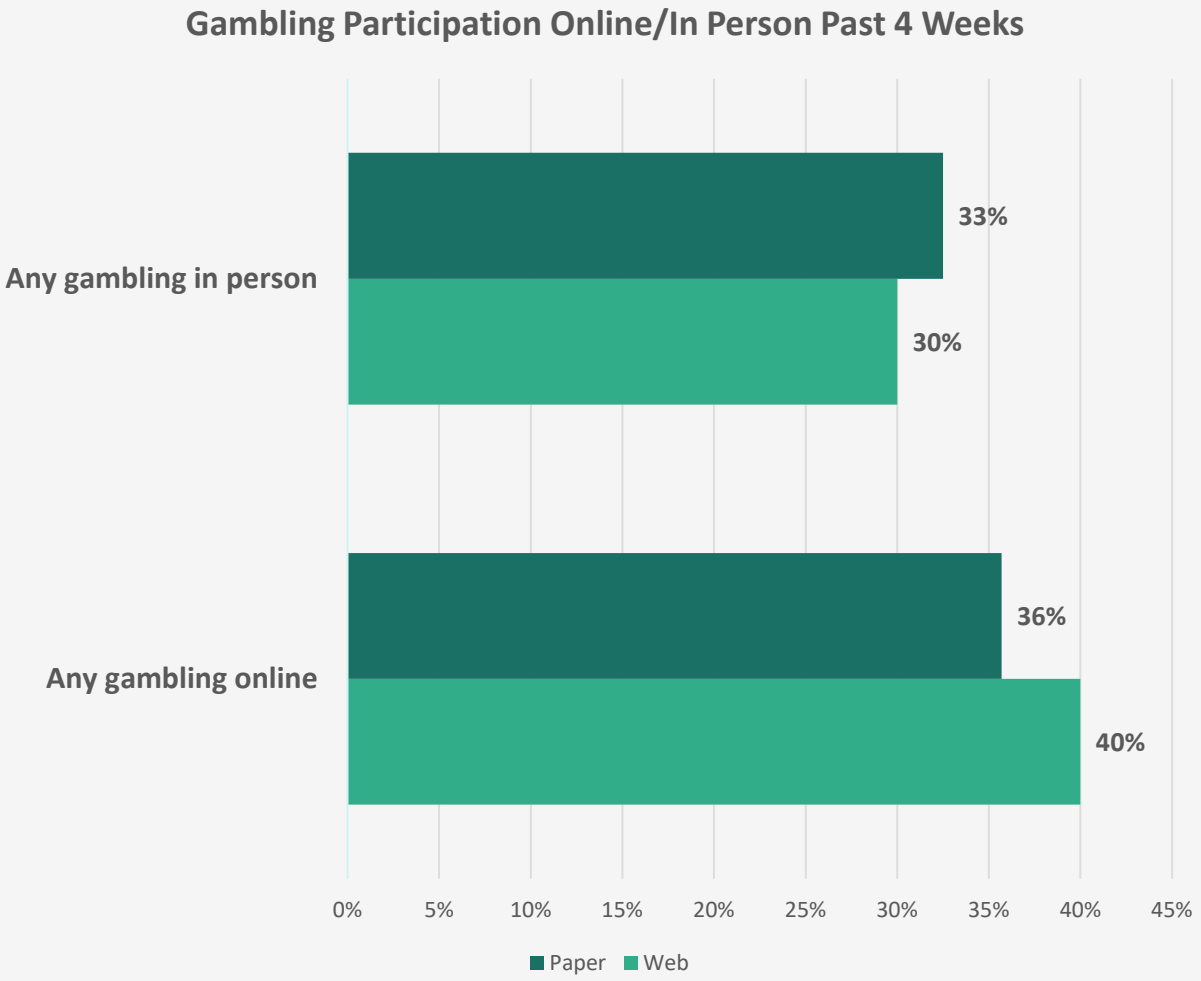
online surveys may overestimate the proportion of online gamblers, which may in turn overestimate gambling harm because online and frequent gambling are independently associated with a higher probability of gambling harm.

However, evidence suggests that those experiencing harms from gambling are less likely to take part in surveys overall and have poorer health outcomes. Given this, there is also the possibility that these people may be less likely to take part in a health-focused survey, which would also impact on the results obtained by health surveys. This is a theoretical possibility that needs further empirical examination.

GAMBLING COMMISSION

A Comparison Between Web and Paper Survey Method Responses

Gambling Participation Web vs. Paper Survey Method



Web - Unweighted bases of those providing a valid response – Past 4 weeks (n=2396), Past 12 months (n=2397)
Paper- Unweighted base of those providing a valid response - Past 4 weeks (n=1332), Past 12 months (n=1377)

Web - Unweighted bases of those providing a valid response – Any gambling online (n=2396), Any gambling in person (n=2396)
Paper- Unweighted base of those providing a valid response - Any gambling online (n=1297), Any gambling in person (n=1322)

Participation by Activity Past 4 Weeks – Web vs. Paper Survey Method

Lotteries	Web	Paper
Tickets for National Lottery	31.7%	32.1%
-Tickets for National Lottery – Online	25.9%	21.7%
-Tickets for National Lottery – In person	16.5%	19.5%
Tickets for other charity lotteries	13.5%	18.9%
-Tickets for other charity lotteries - Online	11.9%	15.7%
-Tickets for other charity lotteries – In person	5.0%	6.3%

Bingo and Casino	Web	Paper
Bingo played online/in app	3.3%	1.2%
Bingo played at a venue	3.8%	3.2%
Casino games online/app	3.1%	0.8%
Casino games played in a casino	1.7%	1.1%
Casino games played on a machine in a venue	1.6%	1.1%

Scratchcards and Instant Wins	Web	Paper
National lottery scratchcards	12.7%	11.7%
Other scratchcards	4.6%	3.6%
National lottery online instant win games	5.9%	3.9%
Other online instant win games	3.6%	1.3%

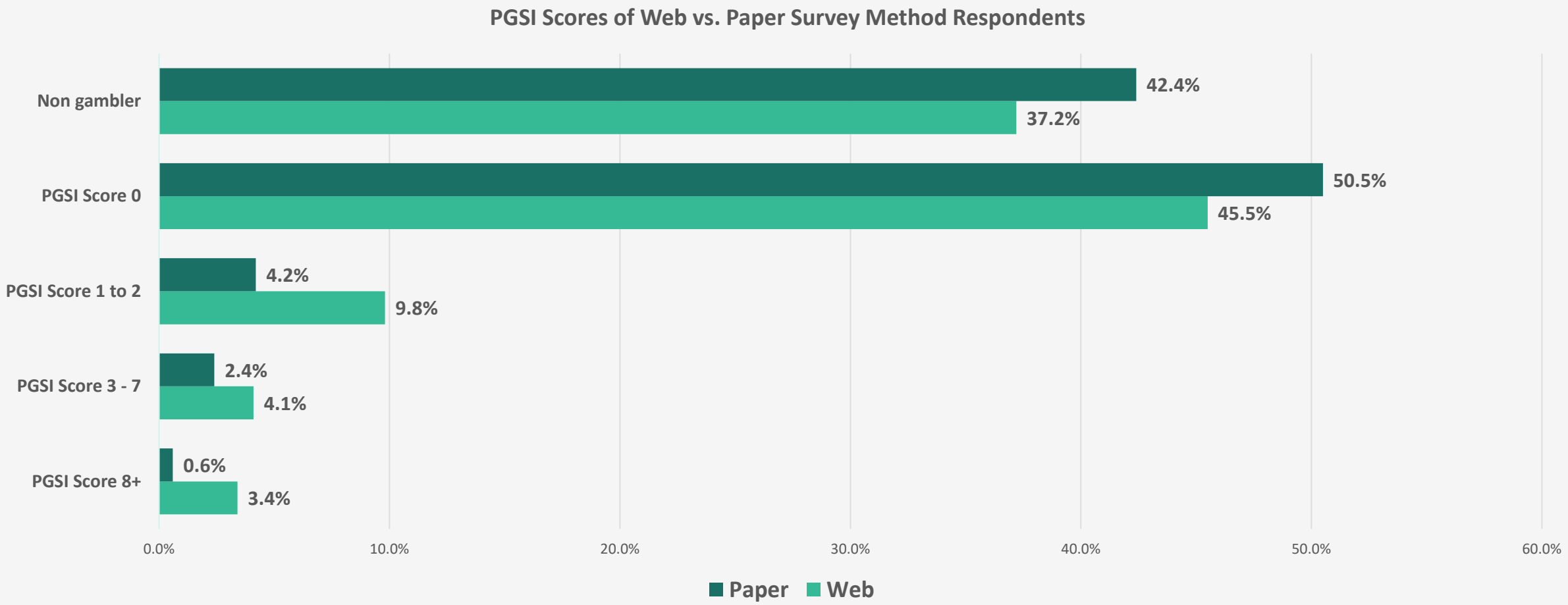
Fruit and Slots	Web	Paper
Fruit/slots online/app	3.7%	1.5%
Fruit/slots in person	3.7%	2.3%

Betting	Web	Paper
Betting on sports/racing online/via app	14.1%	6.1%
Betting on sports/racing in person	5.3%	4.4%
Betting on outcome events online	1.9%	1.2%
Betting on outcome events in person	1.1%	1.0%

Other Activities	Web	Paper
Football pools	1.9%	0.9%
Private betting e.g. with friends	4.0%	3.1%
Another form of gambling	1.9%	1.6%

Web - Unweighted bases of those providing a valid response (n=2396-2403)
Paper- Unweighted base of those providing a valid response (n=1312-1399)

Problem Gambling Severity Index (PGSI) Scores



3.4% of those responding via the web survey had a PGSI score 8+

0.6% of those responding via the paper survey method had a PGSI score 8+

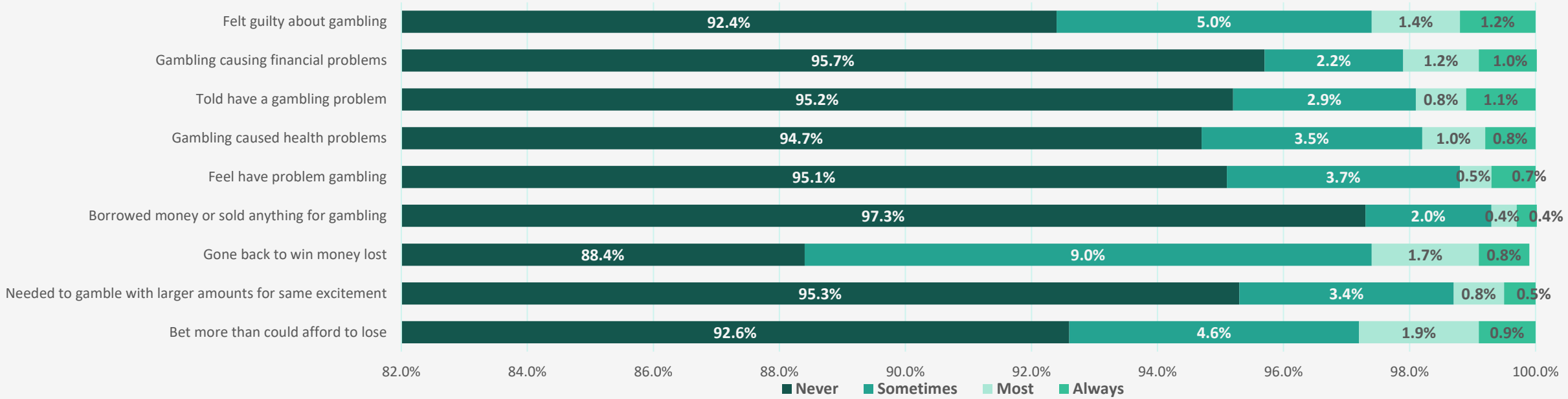
Web - Unweighted bases of those providing a valid response (n=2397)
Paper- Unweighted base of those providing a valid response (n=13150)

PGSI Statement Responses - Web

PGSI Statements – Web Survey Respondents

	Never	Sometimes	Most	Always
Bet more than could afford to lose	92.6%	4.6%	1.9%	0.9%
Need to gamble with larger amounts	95.3%	3.4%	0.8%	0.5%
Gone back to win money	88.4%	9.0%	1.7%	0.8%
Borrowed money or sold anything	97.3%	2.0%	0.4%	0.4%
Feel have problem gambling	95.1%	3.7%	0.5%	0.7%
Gambling cause health problems	94.7%	3.5%	1.0%	0.8%
Told have a gambling problem	95.2%	2.9%	0.8%	1.1%
Gambling causing financial problems	95.7%	2.2%	1.2%	1.0%
Guilt about gambling	92.4%	5.0%	1.4%	1.2%

Individual Responses to PGSI Statements – Of those Responding Via Web Survey



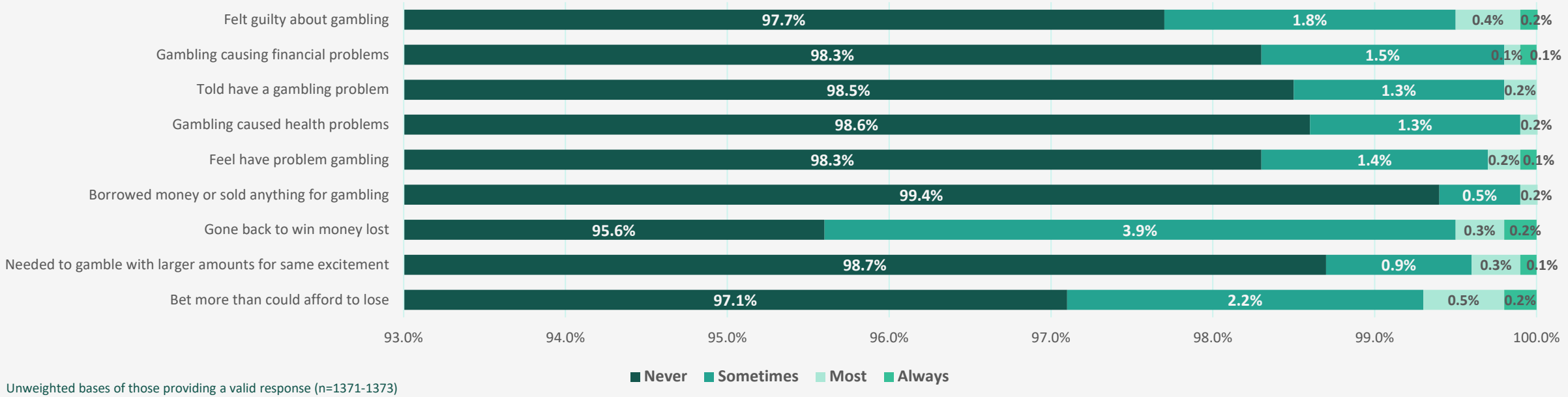
Unweighted bases of those providing a valid response (n=2403)

PGSI Statement Responses - Paper

PGSI Statements – Paper Survey Respondents

	Never	Sometimes	Most	Always
Bet more than could afford to lose	97.1%	2.2%	0.5%	0.2%
Need to gamble with larger amounts	98.7%	0.9%	0.3%	0.1%
Gone back to win money	95.5%	3.9%	0.3%	0.2%
Borrowed money or sold anything	99.4%	0.5%	0.2%	0.0%
Feel have problem gambling	98.3%	1.4%	0.2%	0.1%
Gambling cause health problems	98.6%	1.3%	0.2%	0.0%
Told have a gambling problem	98.5%	1.3%	0.2%	0.0%
Gambling causing financial problems	98.3%	1.5%	0.1%	0.1%
Guilt about gambling	97.7%	1.8%	0.4%	0.2%

Individual Responses to PGSI Statements – Of those Responding Via Paper Survey



Unweighted bases of those providing a valid response (n=1371-1373)

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SHORT FORM CONTRACT FOR THE SUPPLY OF GOODS AND/OR SERVICES

I. Index

II. Cover Letter

Professor Patrick Sturgis

By email to: [redacted]@lse.ac.uk

Date: **08.01.24**

Our ref: GSGB Review

Dear Professor Sturgis,

Following your proposal for reviewing the Gambling Survey for Great Britain methodology for the Gambling Commission, we are pleased confirm our intention to award this Contract to you.

The attached Order Form, contract Conditions and the Annexes set out the terms of the Contract between the Gambling Commission and yourself for the provision of the Deliverables set out in the Order Form.

Please confirm your acceptance of this Contract by signing and returning the Order Form to [redacted] at the following email address: [redacted]@gamblingcommission.gov.uk within 7 days from the date of the Order Form. No other form of acknowledgement will be accepted. Please remember to include the reference number(s) above in any future communications relating to this Contract.

We will then arrange for the Order Form to be countersigned which will create a binding contract between us.

Yours faithfully,

[redacted]

III. Order Form

1. Contract Reference	A review of the Gambling Survey for Great Britain	
2. Buyer	**The Gambling Commission, Victoria Square House, Birmingham**. In entering into this Contract, the Buyer is acting as part of the Crown and the Supplier shall be treated as contracting with the Crown as a whole.	
3. Supplier	Professor Patrick Sturgis	
4. The Contract	This Contract between the Buyer and the Supplier is for the supply of Deliverables. The Supplier shall supply the Deliverables described below on the terms set out in this Order Form and the attached contract conditions ("**Conditions**") and Annex Unless the context otherwise requires, capitalised expressions used in this Order Form have the same meanings as in the Conditions.	
5. Deliverables	**Goods**	Description: as set out in Annex 2 The Goods are to be Delivered in accordance with the following instructions: • Delivery Address: [redacted], [redacted]@gamblingcommission.gov,uk . Draft report to be submitted in January 2024
	Services	None
6. Specification	The specification of the Deliverables is as set out in Annex 2	
7. Start Date	1 October 2024	
8. Expiry Date	31 Jan 2024	
9. Extension Period	Not applicable	
10. Buyer Cause	Any Material Breach of the obligations of the Buyer or any other default, act, omission, negligence or statement of the Buyer, of its employees, servants, agents in connection with or in relation to the subject-matter of the Contract and in respect of which the Buyer is liable to the Supplier.	
11. Optional Intellectual Property Rights	Not applicable	

("IPR") Clauses	
12. Charges	The Charges for the Deliverables shall be as set out below: The cost of the review and the written report will be £9,600 based on £1,200 per day for eight days work. VAT is not applicable for this project.
13. Payment	Payment of undisputed invoices will be made within 30 days of receipt of invoice, which must be submitted promptly by the Supplier. All invoices must be sent, quoting a valid Purchase Order Number ([redacted]) and any other relevant details, to: [redacted]@gamblingcommission.gov.uk. Within 10 Working Days of receipt of your countersigned copy of this Order Form, we will send you a unique PO Number. You must be in receipt of a valid PO Number before submitting an invoice. To avoid delay in payment it is important that the invoice is compliant and that it includes a valid PO Number, item number (if applicable) and the details (name, email, and telephone number) of your Buyer contact (i.e. Buyer Authorised Representative). Non-compliant invoices may be sent back to you, which may lead to a delay in payment. If you have a query regarding an outstanding payment please contact our Accounts Payable team by email to [redacted]@gamblingcommission.gov.uk.
14. Data Protection Liability Cap	Not applicable
15. Progress Meetings and Progress Reports	The Supplier shall attend progress meetings with the Buyer as and when required
16. Buyer Authorised Representative(s)	For general liaison your contact will continue to be [redacted], [redacted]@gamblingcommission.gov.uk or, in their absence, [redacted], [redacted]@gamblingcommission.gov.uk
17. Supplier Authorised Representative(s)	For general liaison your contact will continue to be [redacted], [redacted]@lse.ac.uk

18. Address for notices	Gambling Commission Victoria Square House Birmingham B2 4BP Attention: [redacted] Email: [redacted]@gamblingcommission.gov.uk Professor Patrick Sturgis and address of Supplier] Attention: Professor Sturgis Email: [redacted]@lse.ac.uk
19. Key Staff	**Key Staff Role:** / **Key Staff Name** / **Contact Details:** Report Author / Professor Patrick Sturgis / [redacted]@lse.ac.uk
20. Procedures and Policies	Not applicable
21. Special Terms	*Not applicable*
22. Incorporated Terms	The following documents are incorporated into the Contract. If there is any conflict, the following order of precedence applies: (a) The cover letter from the Buyer to the Supplier dated 08.01.24 (b) This Order Form (c) Any Special Terms (see row 21 (Special Terms) in this Order Form) (d) Conditions (as they may be amended by [Annex 5 – Optional IPR Clauses] *(Optional)*) (e) The following Annexes in equal order of precedence: i. Annex 1 – Processing Personal Data ii. [[Annex 2 – Specification]

Signed for and on behalf of the Supplier	Signed for and on behalf of the Buyer acting on behalf of the Crown
Name: Patrick Sturgis Director	Name: [redacted] [redacted]
Date: 9/1/2024	Date:9.1.24
Signature: [redacted]	Signature: [redacted]

[Guidance: Where appropriate, this Order Form may be signed electronically by both Parties.]

IV. Short form Terms ("Conditions")

1 DEFINITIONS USED IN THE CONTRACT

1.1 In this Contract, unless the context otherwise requires, the following words shall have the following meanings:

"Affiliates"	in relation to a body corporate, any other entity which directly or indirectly Controls (in either of the senses defined in sections 450 and 1124 of the Corporation Tax Act 2010 and "**Controlled**" shall be construed accordingly), is Controlled by, or is under direct or indirect common Control of that body corporate from time to time;
"Audit"	the Buyer's right to: (a) verify the accuracy of the Charges and any other amounts payable by the Buyer under the Contract (including proposed or actual variations to them in accordance with the Contract); (b) verify the costs of the Supplier (including the costs of all Subcontractors and any third party suppliers) in connection with the provision of the Deliverables; (c) verify the Supplier's and each Subcontractor's compliance with the applicable Law; (d) identify or investigate actual or suspected breach of clauses 4 to 34 (inclusive), impropriety or accounting mistakes or any breach or threatened breach of security and in these circumstances the Buyer shall have no obligation to inform the Supplier of the purpose or objective of its investigations; (e) identify or investigate any circumstances which may impact upon the financial stability of the Supplier and/or any Subcontractors or their ability to provide the Deliverables; (f) obtain such information as is necessary to fulfil the Buyer's obligations to supply information for parliamentary, ministerial, judicial or administrative purposes including the supply of information to the Comptroller and Auditor General; (g) review any books of account and the internal contract management accounts kept by the Supplier in connection with the Contract; (h) carry out the Buyer's internal and statutory audits and to prepare, examine and/or certify the Buyer's annual and interim reports and accounts; (i) enable the National Audit Office to carry out an examination pursuant to Section 6(1) of the National Audit Act 1983 of the economy, efficiency and effectiveness with which the Buyer has used its resources;

"Beneficiary"	A Party having (or claiming to have) the benefit of an indemnity under this Contract;
"Buyer Cause"	has the meaning given to it in the Order Form;
"Buyer"	the person named as Buyer in the Order Form. Where the Buyer is a Crown Body the Supplier shall be treated as contracting with the Crown as a whole;
"Charges"	the charges for the Deliverables as specified in the Order Form;
"Claim"	any claim which it appears that the Buyer is, or may become, entitled to indemnification under this Contract;
"Conditions"	means these short form terms and conditions of contract;
"Confidential Information"	all information, whether written or oral (however recorded), provided by the disclosing Party to the receiving Party and which (a) is known by the receiving Party to be confidential; (b) is marked as or stated to be confidential; or (c) ought reasonably to be considered by the receiving Party to be confidential;
"Conflict of Interest"	a conflict between the financial or personal duties of the Supplier or the Supplier Staff and the duties owed to the Buyer under the Contract, in the reasonable opinion of the Buyer;
"Contract"	the contract between the Buyer and the Supplier which is created by the Supplier's counter signing the Order Form and includes the cover letter (if used), Order Form, these Conditions and the Annexes;
"Controller"	has the meaning given to it in the UK GDPR or the EU GDPR as the context requires;
"Crown Body"	the government of the United Kingdom (including the Northern Ireland Assembly and Executive Committee, the Scottish Government and the Welsh Government), including, but not limited to, government ministers and government departments and particular bodies, persons, commissions or agencies from time to time carrying out functions on its behalf;
"Data Loss Event"	any event that results, or may result, in unauthorised access to Personal Data held by the Processor under this Contract, and/or actual or potential loss and/or destruction of Personal Data in breach of this Contract, including any Personal Data Breach;

"Data Protection Impact Assessment"	an assessment by the Controller of the impact of the envisaged processing on the protection of Personal Data;
"Data Protection Legislation"	(a) the UK GDPR, (b) the DPA 2018; (c) all applicable Law about the processing of personal data and privacy and guidance issued by the Information Commissioner and other regulatory authority; and (d) (to the extent that it applies) the EU GDPR (and in the event of conflict, the UK GDPR shall apply);
"Data Protection Liability Cap"	has the meaning given to it in row 14 of the Order Form;
"Data Protection Officer"	has the meaning given to it in the UK GDPR or the EU GDPR as the context requires;
"Data Subject Access Request"	a request made by, or on behalf of, a Data Subject in accordance with rights granted pursuant to the Data Protection Legislation to access their Personal Data;
"Data Subject"	has the meaning given to it in the UK GDPR or the EU GDPR as the context requires;
"Deliver"	hand over of the Deliverables to the Buyer at the address and on the date specified in the Order Form, which shall include unloading and stacking and any other specific arrangements agreed in accordance with clause 4.2. "Delivered" and "Delivery" shall be construed accordingly;
"Deliverables"	means the Goods, Services, and/or software to be supplied under the Contract as set out in the Order Form;
"DPA 2018"	the Data Protection Act 2018;
"EU GDPR"	Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (General Data Protection Regulation) as it has effect in EU law;
"Existing IPR"	any and all intellectual property rights that are owned by or licensed to either Party and which have been developed independently of the Contract (whether prior to the date of the Contract or otherwise);
"Expiry Date"	the date for expiry of the Contract as set out in the Order Form;

"FOIA"	the Freedom of Information Act 2000 together with any guidance and/or codes of practice issued by the Information Commissioner or relevant Government department in relation to such legislation;
"Force Majeure Event"	any event, circumstance, matter or cause affecting the performance by either the Buyer or the Supplier of its obligations arising from: (a) acts, events, omissions, happenings or non-happenings beyond the reasonable control of the Party seeking to claim relief in respect of a Force Majeure Event (the "**Affected Party**") which prevent or materially delay the Affected Party from performing its obligations under the Contract; (b) riots, civil commotion, war or armed conflict, acts of terrorism, nuclear, biological or chemical warfare; (c) acts of a Crown Body, local government or regulatory bodies; (d) fire, flood or any disaster; or (e) an industrial dispute affecting a third party for which a substitute third party is not reasonably available but excluding: (a) any industrial dispute relating to the Supplier, the Supplier Staff (including any subsets of them) or any other failure in the Supplier or the Subcontractor's supply chain; (b) any event, occurrence, circumstance, matter or cause which is attributable to the wilful act, neglect or failure to take reasonable precautions against it by the Party concerned; and (c) any failure of delay caused by a lack of funds, and which is not attributable to any wilful act, neglect or failure to take reasonable preventative action by that Party;
"Good Industry Practice"	standards, practices, methods and procedures conforming to the Law and the exercise of the degree of skill and care, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced person or body engaged within the relevant industry or business sector;
"Goods"	the goods to be supplied by the Supplier to the Buyer under the Contract;
"Government Data"	(a) the data, text, drawings, diagrams, images or sounds (together with any database made up of any of these) which are embodied in any electronic, magnetic, optical or tangible media, including any of the Buyer's confidential information, and which: (i) are supplied to the Supplier by or on behalf of the Buyer; or

	(ii) the Supplier is required to generate, process, store or transmit pursuant to the Contract; or (b) any Personal Data for which the Buyer is the Controller;
"Indemnifier"	a Party from whom an indemnity is sought under this Contract;
"Independent Controller"	a party which is Controller of the same Personal Data as the other Party and there is no element of joint control with regards to that Personal Data;
"Information Commissioner"	the UK's independent authority which deals with ensuring information relating to rights in the public interest and data privacy for individuals is met, whilst promoting openness by public bodies;
"Insolvency Event"	in respect of a person: (a) if that person is insolvent; (b) where that person is a company, LLP or a partnership, if an order is made or a resolution is passed for the winding up of the person (other than voluntarily for the purpose of solvent amalgamation or reconstruction); (c) if an administrator or administrative receiver is appointed in respect of the whole or any part of the person's assets or business; (d) if the person makes any composition with its creditors; or (e) takes or suffers any similar or analogous action to any of the actions detailed in this definition as a result of debt in any jurisdiction;
"IP Completion Day"	has the meaning given to it in the European Union (Withdrawal Agreement) Act 2020;
"Joint Controller Agreement"	the agreement (if any) entered into between the Buyer and the Supplier substantially in the form set out in Part B Joint Controller Agreement *(Optional)* of Annex 1 – Processing Personal Data;
"Joint Controllers"	Where two or more Controllers jointly determine the purposes and means of processing;
"Key Staff"	any persons specified as such in the Order Form or otherwise notified as such by the Buyer to the Supplier in writing, following agreement to the same by the Supplier;
"Law"	any law, subordinate legislation within the meaning of section 21(1) of the Interpretation Act 1978, bye-law, right within the meaning of the European Union (Withdrawal) Act 2018 as amended by European Union (Withdrawal Agreement) Act 2020, regulation, order, regulatory policy, mandatory guidance or code of

	practice, judgment of a relevant court of law, or directives or requirements of any regulatory body with which the Supplier is bound to comply;
"Material Breach"	a single serious breach or a number of breaches or repeated breaches (whether of the same or different obligations and regardless of whether such breaches are remedied)
"National Insurance"	contributions required by the Social Security Contributions and Benefits Act 1992 and made in accordance with the Social Security (Contributions) Regulations 2001 (SI 2001/1004);
"New IPR Items"	means a deliverable, document, product or other item within which New IPR subsists;
"New IPR"	all and intellectual property rights in any materials created or developed by or on behalf of the Supplier pursuant to the Contract but shall not include the Supplier's Existing IPR;
"Open Licence"	means any material that is published for use, with rights to access and modify, by any person for free, under a generally recognised open licence including Open Government Licence as set out at http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/ as updated from time to time and the Open Standards Principles documented at https://www.gov.uk/government/publications/open-standards-principles/open-standards-principles as updated from time to time;
"Order Form"	the order form signed by the Buyer and the Supplier printed above these Conditions;
"Party"	the Supplier or the Buyer (as appropriate) and "Parties" shall mean both of them;
"Personal Data Breach"	has the meaning given to it in the UK GDPR or the EU GDPR as the context requires and includes any breach of Data Protection Legislation relevant to Personal Data processed pursuant to the Contract;
"Personal Data"	has the meaning given to it in the UK GDPR or the EU GDPR as the context requires;
"Prescribed Person"	a legal adviser, an MP or an appropriate body which a whistle-blower may make a disclosure to as detailed in 'Whistleblowing: list of prescribed people and bodies', 24 November 2016, available online at: https://www.gov.uk/government/publications/blowing-the-whistle-list-of-prescribed-people-and-bodies--2/whistleblowing-list-of-prescribed-people-and-bodies as updated from time to time;

"Processor Personnel"	all directors, officers, employees, agents, consultants and suppliers of the Processor and/or of any Subprocessor engaged in the performance of its obligations under the Contract;
"Processor"	has the meaning given to it in the UK GDPR or the EU GDPR as the context requires;
"Protective Measures"	technical and organisational measures which must take account of: (a) the nature of the data to be protected; (b) harm that might result from Data Loss Event; (c) state of technological development; (d) the cost of implementing any measures; including pseudonymising and encrypting Personal Data, ensuring confidentiality, integrity, availability and resilience of systems and services, ensuring that availability of and access to Personal Data can be restored in a timely manner after an incident, and regularly assessing and evaluating the effectiveness of the such measures adopted by it;
"Purchase Order Number" or "PO Number"	the Buyer's unique number relating to the order for Deliverables to be supplied by the Supplier to the Buyer in accordance with the Contract;
"Rectification Plan"	the Supplier's plan (or revised plan) to rectify its Material Breach which shall include: (a) full details of the Material Breach that has occurred, including a root cause analysis; (b) the actual or anticipated effect of the Material Breach; and (c) the steps which the Supplier proposes to take to rectify the Material Breach (if applicable) and to prevent such Material Breach from recurring, including timescales for such steps and for the rectification of the Material Breach (where applicable);
"Regulations"	the Public Contracts Regulations 2015 and/or the Public Contracts (Scotland) Regulations 2015 (as the context requires) as amended from time to time;
"Request For Information"	has the meaning set out in the FOIA or the Environmental Information Regulations 2004 as relevant (where the meaning set out for the term "**request**" shall apply);
"Services"	the services to be supplied by the Supplier to the Buyer under the Contract;
"Specification"	the specification for the Deliverables to be supplied by the Supplier to the Buyer (including as to quantity, description and quality) as specified in the Order Form;

"Staff Vetting Procedures"	vetting procedures that accord with Good Industry Practice or, where applicable, the Buyer's procedures or policies for the vetting of personnel as specified in the Order Form or provided to the Supplier in writing following agreement to the same by the Supplier from time to time;
"Start Date"	the start date of the Contract set out in the Order Form;
"Sub-Contract"	any contract or agreement (or proposed contract or agreement), other than the Contract, pursuant to which a third party: (a) provides the Deliverables (or any part of them); (b) provides facilities or services necessary for the provision of the Deliverables (or any part of them); and/or (c) is responsible for the management, direction or control of the provision of the Deliverables (or any part of them);
"Subcontractor"	any person other than the Supplier, who is a party to a Sub-Contract and the servants or agents of that person;
"Subprocessor"	any third party appointed to process Personal Data on behalf of the Processor related to the Contract;
"Supplier Staff"	all directors, officers, employees, agents, consultants and contractors of the Supplier and/or of any Subcontractor of the Supplier engaged in the performance of the Supplier's obligations under the Contract;
"Supplier"	the person named as Supplier in the Order Form;
"Term"	the period from the Start Date to the Expiry Date as such period may be extended in accordance with clause 11.2 or terminated in accordance with the Contract;
"Third Party IPR"	intellectual property rights owned by a third party which is or will be used by the Supplier for the purpose of providing the Deliverables;
"Transparency Information"	In relation to Contracts with a value above the relevant threshold set out in Part 2 of the Regulations only, the content of the Contract, including any changes to this Contract agreed from time to time, as well as any information relating to the Deliverables and performance pursuant to the Contract required to be published by the Buyer to comply with its transparency obligations, including those set out in Public Procurement Policy Note 09/21 (update to legal and policy requirements to publish procurement information on Contracts Finder) (https://www.gov.uk/government/publications/ppn-0921-requirements-to-publish-on-contracts-finder) as updated from time to time and Public Procurement Policy Note 01/17 (update to transparency principles) where applicable (https://www.gov.uk/government/publications/procurement-policy-note-0117-update-to-transparency-principles) as updated from time to time except for:

	(a) any information which is exempt from disclosure in accordance with the provisions of the FOIA, which shall be determined by the Buyer; and (b) Confidential Information;
"UK GDPR"	has the meaning as set out in section 3(10) of the DPA 2018, supplemented by section 205(4);
"VAT"	value added tax in accordance with the provisions of the Value Added Tax Act 1994;
"Worker"	any one of the Supplier Staff which the Buyer, in its reasonable opinion, considers is an individual to which Procurement Policy Note 08/15 (Tax Arrangements of Public Appointees) (https://www.gov.uk/government/publications/procurement-policynote-0815-tax-arrangements-of-appointees)as updated from time to time applies in respect of the Deliverables; and
"Working Day"	a day (other than a Saturday or Sunday) on which banks are open for business in the City of London.

2 UNDERSTANDING THE CONTRACT

2.1 In the Contract, unless the context otherwise requires:

2.1.1 references to numbered clauses are references to the relevant clause in these Conditions;

2.1.2 any obligation on any Party not to do or omit to do anything shall include an obligation not to allow that thing to be done or omitted to be done;

2.1.3 references to "writing" include printing, display on a screen and electronic transmission and other modes of representing or reproducing words in a visible form;

2.1.4 a reference to any Law includes a reference to that Law as amended, extended, consolidated, replaced or re-enacted from time to time (including as a consequence of the Retained EU Law (Revocation and Reform) Act) and to any legislation or byelaw made under that Law;

2.1.5 the word "including", "for example" and similar words shall be understood as if they were immediately followed by the words "without limitation";

2.1.6 any reference which, immediately before IP Completion Day (or such later date when relevant EU law ceases to have effect pursuant to section 1A of the European Union (Withdrawal) Act 2018), is a reference to (as it has effect from time to time) any EU regulation, EU decision, EU tertiary legislation or provision of the EEA agreement ("**EU References**") which is to form part of domestic law by application of section 3 of the European Union (Withdrawal) Act 2018 and which shall be read on and after IP Completion Day as a reference to the EU References as they form part of domestic law by virtue of section 3 of the European Union (Withdrawal) Act 2018 as modified by domestic law from time to time.

3 HOW THE CONTRACT WORKS

3.1 The Order Form is an offer by the Buyer to purchase the Deliverables subject to and in accordance with the terms and conditions of the Contract.

3.2 The Supplier is deemed to accept the offer in the Order Form when the Buyer receives a copy of the Order Form signed by the Supplier.

3.3 The Supplier warrants and represents that its tender (if any) and all statements made and documents submitted as part of the procurement of Deliverables are and remain true and accurate.

4 WHAT NEEDS TO BE DELIVERED

4.1 All Deliverables

4.1.1 The Supplier must provide Deliverables:

4.1.1.1 in accordance with the Specification and the Contract;

4.1.1.2 using reasonable skill and care;

4.1.1.3 using Good Industry Practice;

4.1.1.4 using its own policies, processes and internal quality control measures as long as they don't conflict with the Contract;

4.1.1.5 on the dates agreed; and

4.1.1.6 that comply with all Law.

4.1.2 The Supplier must provide Deliverables with a warranty of at least 90 days (or longer where the Supplier offers a longer warranty period to its Buyers) from Delivery against all obvious defects.

4.2 Goods clauses

4.2.1 All Goods delivered must be new, or as new if recycled, unused and of recent origin.

4.2.2 The Supplier transfers ownership of the Goods on completion of Delivery or payment for those Goods, whichever is earlier.

4.2.3 Risk in the Goods transfers to the Buyer on Delivery, but remains with the Supplier if the Buyer notices damage following Delivery and lets the Supplier know within 3 Working Days of Delivery.

4.2.4 The Supplier warrants that it has full and unrestricted ownership of the Goods at the time of transfer of ownership.

4.2.5 The Supplier must Deliver the Goods on the date and to the location specified in the Order Form, during the Buyer's working hours (unless otherwise specified in the Order Form).

4.2.6 The Supplier must provide sufficient packaging for the Goods to reach the point of Delivery safely and undamaged.

4.2.7 All deliveries must have a delivery note attached that specifies the order number, type and quantity of Goods.

4.2.8 The Supplier must provide all tools, information and instructions the Buyer needs to make use of the Goods.

4.2.9 The Supplier will notify the Buyer of any request that Goods are returned to it or the manufacturer after the discovery of safety issues or defects that might endanger health or hinder performance and shall indemnify the Buyer against the costs arising as a result of any such request.

4.2.10 The Buyer can cancel any order or part order of Goods which has not been Delivered. If the Buyer gives less than 14 days' notice then it will pay the Supplier's reasonable and proven costs already incurred on the cancelled order as long as the Supplier takes all reasonable endeavours to minimise these costs.

4.2.11 The Supplier must at its own cost repair, replace, refund or substitute (at the Buyer's option and request) any Goods that the Buyer rejects because they don't conform with clause 4.2. If the Supplier doesn't do this it will pay the Buyer's costs including repair or re-supply by a third party.

4.2.12 The Buyer will not be liable for any actions, claims, costs and expenses incurred by the Supplier or any third party during Delivery of the Goods unless and to the extent that it is caused by negligence or other wrongful act of the Buyer or its servant or agent. If the Buyer suffers or incurs any damage or injury (whether fatal or otherwise) occurring in the course of Delivery or installation then the Supplier shall indemnify the Buyer from any losses, charges, costs or expenses which arise as a result of or in connection with such damage or injury where it is attributable to any act or omission of the Supplier or any of its Subcontractors or Supplier Staff.

4.3 Services clauses

4.3.1 Late Delivery of the Services will be a default of the Contract.

4.3.2 The Supplier must co-operate with the Buyer and third party suppliers on all aspects connected with the delivery of the Services and ensure that Supplier Staff comply with any reasonable instructions including the security requirements (where any such requirements have been provided).

4.3.3 The Buyer must provide the Supplier with reasonable access to its premises at reasonable times for the purpose of supplying the Services

4.3.4 The Supplier must at its own risk and expense provide all equipment required to deliver the Services. Any equipment provided by the Buyer to the Supplier for supplying the Services remains the property of the Buyer and is to be returned to the Buyer on expiry or termination of the Contract.

4.3.5 The Supplier must allocate sufficient resources and appropriate expertise to the Contract.

4.3.6 The Supplier must take all reasonable care to ensure performance does not disrupt the Buyer's operations, employees or other contractors.

4.3.7 On completion of the Services, the Supplier is responsible for leaving the Buyer's premises in a clean, safe and tidy condition and making good any damage that it has caused to the Buyer's premises or property, other than fair wear and tear.

4.3.8 The Supplier must ensure all Services, and anything used to deliver the Services, are of good quality and free from defects.

4.3.9 The Buyer is entitled to withhold payment for partially or undelivered Services, but doing so does not stop it from using its other rights under the Contract.

5 PRICING AND PAYMENTS

5.1 In exchange for the Deliverables, the Supplier must invoice the Buyer for the charges in the Order Form.

5.2 All Charges:

5.2.1 exclude VAT, which is payable on provision of a valid VAT invoice; and

5.2.2 include all costs and expenses connected with the supply of Deliverables.

5.3 The Buyer must pay the Supplier the charges within 30 days of receipt by the Buyer of a valid, undisputed invoice, in cleared funds to the Supplier's account stated in the invoice or in the Order Form.

5.4 A Supplier invoice is only valid if it:

5.4.1 includes all appropriate references including the Purchase Order Number and other details reasonably requested by the Buyer; and

5.4.2 includes a detailed breakdown of Deliverables which have been delivered.

5.5 If there is a dispute between the Parties as to the amount invoiced, the Buyer shall pay the undisputed amount. The Supplier shall not suspend the provision of the Deliverables unless the Supplier is entitled to terminate the Contract for a failure to pay undisputed sums in accordance with clause 11.6. Any disputed amounts shall be resolved through the dispute resolution procedure detailed in clause 36.

5.6 The Buyer may retain or set-off payment of any amount owed to it by the Supplier under this Contract or any other agreement between the Supplier and the Buyer if notice and reasons are provided.

5.7 The Supplier must ensure that all Subcontractors are paid, in full, within 30 days of receipt of a valid, undisputed invoice. If this doesn't happen, the Buyer can publish the details of the late payment or non-payment.

6 THE BUYER'S OBLIGATIONS TO THE SUPPLIER

6.1 If Supplier fails to comply with the Contract as a result of a Buyer Cause:

6.1.1 the Buyer cannot terminate the Contract under clause 11;

6.1.2 the Supplier is entitled to reasonable and proven additional expenses and to relief from liability under this Contract;

6.1.3 the Supplier is entitled to additional time needed to deliver the Deliverables; and

6.1.4 the Supplier cannot suspend the ongoing supply of Deliverables.

6.2 Clause 6.1 only applies if the Supplier:

6.2.1 gives notice to the Buyer within 10 Working Days of becoming aware;

6.2.2 demonstrates that the failure only happened because of the Buyer Cause; and

6.2.3 mitigated the impact of the Buyer Cause.

7 RECORD KEEPING AND REPORTING

7.1 The Supplier must ensure that suitably qualified representatives attend progress meetings with the Buyer and provide progress reports when specified in the Order Form.

7.2 The Supplier must keep and maintain full and accurate records and accounts on everything to do with the Contract for 7 years after the date of expiry or termination of the Contract and in accordance with the UK GDPR or the EU GDPR as the context requires.

7.3 The Supplier must allow any auditor appointed by the Buyer access to its premises to verify all contract accounts and records of everything to do with the Contract and provide copies for the Audit.

7.4 The Buyer or an auditor can Audit the Supplier.

7.5 During an Audit, the Supplier must provide information to the auditor and reasonable co-operation at their request.

7.6 The Parties will bear their own costs when an Audit is undertaken unless the Audit identifies a Material Breach by the Supplier, in which case the Supplier will repay the Buyer's reasonable costs in connection with the Audit.

7.7 If the Supplier is not providing any of the Deliverables, or is unable to provide them, it must immediately:

7.7.1 tell the Buyer and give reasons;

7.7.2 propose corrective action; and

7.7.3 provide a deadline for completing the corrective action.

7.8 If the Buyer, acting reasonably, is concerned as to the financial stability of the Supplier such that it may impact on the continued performance of the Contract then the Buyer may:

7.8.1 require that the Supplier provide to the Buyer (for its approval) a plan setting out how the Supplier will ensure continued performance of the Contract and the Supplier will make changes to such plan as reasonably required by the Buyer and once it is agreed then the Supplier shall act in accordance with such plan and report to the Buyer on demand; and

7.8.2 if the Supplier fails to provide a plan or fails to agree any changes which are requested by the Buyer or fails to implement or provide updates on progress with the plan, terminate the Contract immediately for Material Breach (or on such date as the Buyer notifies) and the consequences of termination in Clause 11.5.1 shall apply.

7.9 If there is a Material Breach, the Supplier must notify the Buyer within 3 Working Days of the Supplier becoming aware of the Material Breach. The Buyer may request that the Supplier provide a Rectification Plan within 10 Working Days of the Buyer's request alongside any additional documentation that the Buyer requires. Once such Rectification Plan is agreed between the Parties (without the Buyer limiting its rights) the Supplier must immediately start work on the actions in the Rectification Plan at its own cost.

8 SUPPLIER STAFF

8.1 The Supplier Staff involved in the performance of the Contract must:

8.1.1 be appropriately trained and qualified;

8.1.2 be vetted in accordance with the Staff Vetting Procedures; and

8.1.3 comply with all conduct requirements when on the Buyer's premises.

8.2 Where the Buyer decides one of the Supplier's Staff isn't suitable to work on the Contract, the Supplier must replace them with a suitably qualified alternative.

8.3 The Supplier must provide a list of Supplier Staff needing to access the Buyer's premises and say why access is required.

8.4 The Supplier indemnifies the Buyer against all claims brought by any person employed or engaged by the Supplier caused by an act or omission of the Supplier or any Supplier Staff.

8.5 The Buyer indemnifies the Supplier against all claims brought by any person employed or engaged by the Buyer caused by an act or omission of the Buyer or any of the Buyer's employees, agents, consultants and contractors.

8.6 The Supplier shall use those persons nominated (if any) as Key Staff in the Order Form or otherwise notified as such by the Buyer to the Supplier in writing, following agreement to the same by the Supplier to provide the Deliverables and shall not remove or replace any of them unless:

8.6.1 requested to do so by the Buyer or the Buyer approves such removal or replacement (not to be unreasonably withheld or delayed);

8.6.2 the person concerned resigns, retires or dies or is on parental or long-term sick leave; or

8.6.3 the person's employment or contractual arrangement with the Supplier or any Subcontractor is terminated for material breach of contract by the employee.

8.7 The Supplier shall ensure that no person who discloses that they have a conviction that is relevant to the nature of the Contract, relevant to the work of the Buyer, or is of a type otherwise advised by the Buyer (each such conviction a "**Relevant Conviction**"), or is found by the Supplier to have a Relevant Conviction (whether as a result of a police check, a disclosure and barring service check or otherwise) is employed or engaged in the provision of any part of the Deliverables.

9 RIGHTS AND PROTECTION

9.1 The Supplier warrants and represents that:

9.1.1 it has full capacity and authority to enter into and to perform the Contract;

9.1.2 the Contract is entered into by its authorised representative;

9.1.3 it is a legally valid and existing organisation incorporated in the place it was formed;

9.1.4 there are no known legal or regulatory actions or investigations before any court, administrative body or arbitration tribunal pending or threatened against it or its affiliates that might affect its ability to perform the Contract;

9.1.5 all necessary rights, authorisations, licences and consents (including in relation to IPRs) are in place to enable the Supplier to perform its obligations under the Contract and the Buyer to receive the Deliverables;

9.1.6 it doesn't have any contractual obligations which are likely to have a material adverse effect on its ability to perform the Contract; and

9.1.7 it is not impacted by an Insolvency Event.

9.2 The warranties and representations in clause 3.3 and clause 9.1 are repeated each time the Supplier provides Deliverables under the Contract.

9.3 The Supplier indemnifies the Buyer against each of the following:

9.3.1 wilful misconduct of the Supplier, any of its Subcontractor and/or Supplier Staff that impacts the Contract; and

9.3.2 non-payment by the Supplier of any tax or National Insurance.

9.4 If the Supplier becomes aware of a representation or warranty made in relation to the Contract that becomes untrue or misleading, it must immediately notify the Buyer.

9.5 All third party warranties and indemnities covering the Deliverables must be assigned for the Buyer's benefit by the Supplier for free.

10 INTELLECTUAL PROPERTY RIGHTS ("IPRS")

10.1 Each Party keeps ownership of its own Existing IPRs. The Supplier gives the Buyer a non-exclusive, perpetual, royalty-free, irrevocable, transferable, sub-licensable worldwide licence to use, copy and adapt the Supplier's Existing IPR to enable the Buyer and its sub-licensees to both:

10.1.1 receive and use the Deliverables; and

10.1.2 use the New IPR.

The termination or expiry of the Contract does not terminate any licence granted under this clause 10.

10.2 Any New IPR created under the Contract is owned by the Buyer. The Buyer gives the Supplier a royalty-free, non-exclusive, non-transferable licence to use, copy, and adapt any Existing IPRs and the New IPR which the Supplier reasonably requires for the purpose of fulfilling its obligations during the Term and commercially exploiting the New IPR developed under the Contract. This licence is sub-licensable to a Subcontractor for the purpose of enabling the Supplier to fulfil its obligations under the Contract, and in that case the Subcontractor must enter into a confidentiality undertaking with the Supplier on the same terms as set out in clause 15 (What you must keep confidential).

10.3 Unless otherwise agreed in writing, the Supplier and the Buyer will record any New IPR and keep this record updated throughout the Term.

10.4 Where a Party acquires ownership of intellectual property rights incorrectly under this Contract, it must do everything reasonably necessary to complete a transfer assigning them in writing to the other Party on request and at its own cost.

10.5 Neither Party has the right to use the other Party's intellectual property rights, including any use of the other Party's names, logos or trademarks, except as provided in this clause 10 or otherwise agreed in writing.

10.6 If any claim is made against the Buyer for actual or alleged infringement of a third party's intellectual property arising out of, or in connection with, the supply or use of the Deliverables (an "**IPR Claim**"), then the Supplier indemnifies the Buyer against all losses, damages, costs or expenses (including professional fees and fines) incurred as a result of the IPR Claim.

10.7 If an IPR Claim is made or anticipated, the Supplier must at its own option and expense, either:

10.7.1 obtain for the Buyer the rights in clause 10.1 without infringing any third party intellectual property rights; and

10.7.2 replace or modify the relevant item with substitutes that don't infringe intellectual property rights without adversely affecting the functionality or performance of the Deliverables.

10.7.3 If the Supplier is not able to resolve the IPR Claim to the Buyer's reasonable satisfaction within a reasonable time, the Buyer may give written notice that it terminates the Contract from the date set out in the notice, or where no date is given in the notice, the date of the notice. On termination, the consequences of termination in clauses 11.5.1 shall apply.

10.8 The Supplier shall not use in the Delivery of the Deliverables any Third Party IPR unless:

10.8.1 the Buyer gives its approval to do so; and

10.8.2 one of the following conditions applies:

10.8.2.1 the owner or an authorised licensor of the relevant Third Party IPR has granted the Buyer a direct licence that provides the Buyer with the rights in clause 10.1; or

10.8.2.2 if the Supplier cannot, after commercially reasonable endeavours, obtain for the Buyer a direct licence to the Third Party IPR as set out in clause 10.8.2.1:

(a) the Supplier provides the Buyer with details of the licence terms it can obtain and the identity of those licensors;

(b) the Buyer agrees to those licence terms; and

(c) the owner or authorised licensor of the Third Party IPR grants a direct licence to the Buyer on those terms; or

10.8.2.3 the Buyer approves in writing, with reference to the acts authorised and the specific intellectual property rights involved.

10.9 In spite of any other provisions of the Contract and for the avoidance of doubt, award of this Contract by the Buyer and the ordering of any Deliverable under it, does not constitute an authorisation by the Crown under Sections 55 and 56 of the Patents Act 1977, Section 12 of the Registered Designs Act 1949 or Sections 240 – 243 of the Copyright, Designs and Patents Act 1988.

11 ENDING THE CONTRACT

11.1 The Contract takes effect on the Start Date and ends on the earlier of the Expiry Date or termination of the Contract, or earlier if required by Law.

11.2 The Buyer can extend the Contract where set out in the Order Form in accordance with the terms in the Order Form.

11.3 Ending the Contract without a reason

11.3.1 The Buyer has the right to terminate the Contract at any time without reason or liability by giving the Supplier not less than 90 days' written notice, and if it's terminated clause 11.6.2 applies.

11.4 When the Buyer can end the Contract

11.4.1 If any of the following events happen, the Buyer has the right to immediately terminate its Contract by issuing a termination notice in writing to the Supplier and the consequences of termination in Clause 11.5.1 shall apply:

11.4.1.1 there's a Supplier Insolvency Event;

11.4.1.2 the Supplier is in Material Breach of the Contract;

11.4.1.3 there's a change of control (within the meaning of section 450 of the Corporation Tax Act 2010) of the Supplier which isn't pre-approved by the Buyer in writing;

11.4.1.4 the Buyer discovers that the Supplier was in one of the situations in 57 (1) or 57(2) of the Regulations at the time the Contract was awarded;

11.4.1.5 the Supplier or its affiliates embarrass or bring the Buyer into disrepute or diminish the public trust in them; or

11.4.1.6 the Supplier fails to comply with its legal obligations in the fields of environmental, social, equality or employment Law when providing the Deliverables.

11.4.2 If any of the events in 73(1) (a) or (b) of the Regulations happen, the Buyer has the right to immediately terminate the Contract and clauses 11.5.1.2 to 11.5.1.7 apply.

11.5 What happens if the Contract ends

11.5.1 Where the Buyer terminates the Contract under clause 10.9, 11.4, 7.8.2, 28.4.2, or Paragraph 8 of Part B Joint Controller Agreement *(Optional)* of Annex 1 – Processing Personal Data (if used), all of the following apply:

11.5.1.1 the Supplier is responsible for the Buyer's reasonable costs of procuring replacement Deliverables for the rest of the term of the Contract;

11.5.1.2 the Buyer's payment obligations under the terminated Contract stop immediately;

11.5.1.3 accumulated rights of the Parties are not affected;

11.5.1.4 the Supplier must promptly delete or return the Government Data except where required to retain copies by Law;

11.5.1.5 the Supplier must promptly return any of the Buyer's property provided under the Contract;

11.5.1.6 the Supplier must, at no cost to the Buyer, give all reasonable assistance to the Buyer and any incoming supplier and co-operate fully in the handover and re-procurement; and

11.5.1.7 the Supplier must repay to the Buyer all the Charges that it has been paid in advance for Deliverables that it has not provided as at the date of termination or expiry.

11.5.2 The following clauses survive the expiry or termination of the Contract: 1, 4.2.9, 5, 7, 8.4, 10, 11.5, 12, 14, 15, 16, 18, 19, 32.2.2, 36 and 37 and any clauses which are expressly or by implication intended to continue.

11.6 When the Supplier can end the Contract and what happens when the contract ends (Buyer and Supplier termination)

11.6.1 The Supplier can issue a reminder notice if the Buyer does not pay an undisputed invoice on time. The Supplier can terminate the Contract if the Buyer fails to pay an undisputed invoiced sum due and worth over 10% of the total Contract value or £1,000, whichever is the lower, within 30 days of the date of the reminder notice.

11.6.2 Where the Buyer terminates the Contract in accordance with clause 11.3 or the Supplier terminates the Contract under clause 11.6 or 23.4:

11.6.2.1 the Buyer must promptly pay all outstanding charges incurred by the Supplier;

11.6.2.2 the Buyer must pay the Supplier reasonable committed and unavoidable losses as long as the Supplier provides a fully itemised and costed schedule with evidence - the maximum value of this payment is limited to the total sum payable to the Supplier if the Contract had not been terminated; and

11.6.2.3 clauses 11.5.1.2 to 11.5.1.7 apply.

11.6.3 The Supplier also has the right to terminate the Contract in accordance with Clauses 20.3 and 23.4.

11.7 Partially ending and suspending the Contract

11.7.1 Where the Buyer has the right to terminate the Contract it can terminate or suspend (for any period), all or part of it. If the Buyer suspends the Contract it can provide the Deliverables itself or buy them from a third party.

11.7.2 The Buyer can only partially terminate or suspend the Contract if the remaining parts of it can still be used to effectively deliver the intended purpose.

11.7.3 The Parties must agree (in accordance with clause 25) any necessary variation required by clause 11.7, but the Supplier may not either:

11.7.3.1 reject the variation; or

11.7.3.2 increase the Charges, except where the right to partial termination is under clause 11.3.

11.7.4 The Buyer can still use other rights available, or subsequently available to it if it acts on its rights under clause 11.7.

12 HOW MUCH YOU CAN BE HELD RESPONSIBLE FOR

12.1 Each Party's total aggregate liability under or in connection with the Contract (whether in tort, contract or otherwise) is no more than 125% of the Charges paid or payable to the Supplier.

12.2 No Party is liable to the other for:

12.2.1 any indirect losses; and/or

12.2.2 loss of profits, turnover, savings, business opportunities or damage to goodwill (in each case whether direct or indirect).

12.3 In spite of clause 12.1, neither Party limits or excludes any of the following:

12.3.1 its liability for death or personal injury caused by its negligence, or that of its employees, agents or Subcontractors;

12.3.2 its liability for bribery or fraud or fraudulent misrepresentation by it or its employees; or

12.3.3 any liability that cannot be excluded or limited by Law.

12.4 In spite of clause 12.1, the Supplier does not limit or exclude its liability for any indemnity given under clauses 8.4, 9.3.2, 10.6, or 32.2.2.

12.5 In spite of clause 12.1, the Buyer does not limit or exclude its liability for any indemnity given under clause 8.5.

12.6 Notwithstanding clause 12.1, but subject to clauses 12.1 and 12.3, the Supplier's total aggregate liability under clause 14.7.5 shall not exceed the Data Protection Liability Cap.

12.7 Each Party must use all reasonable endeavours to mitigate any loss or damage which it suffers under or in connection with the Contract, including any indemnities.

12.8 If more than one Supplier is party to the Contract, each Supplier Party is fully responsible for both their own liabilities and the liabilities of the other Suppliers.

13 OBEYING THE LAW

13.1 The Supplier, in connection with provision of the Deliverables:

13.1.1 is expected to meet and have its Subcontractors meet the standards set out in the Supplier Code of Conduct: (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1163536/Supplier_Code_of_Conduct_v3.pdff) as such Code of Conduct may be updated from time to time, and such other sustainability requirements as set out in the Order Form. The Buyer also expects to meet this Code of Conduct;

13.1.2 must comply with the provisions of the Official Secrets Acts 1911 to 1989 and section 182 of the Finance Act 1989;

13.1.3 must support the Buyer in fulfilling its Public Sector Equality duty under section 149 of the Equality Act 2010;

13.1.4 must comply with the model contract terms contained in (a) to (m) of Annex C of the guidance to PPN 02/23 (Tackling Modern Slavery in Government Supply Chains),[1] as such clauses may be amended or updated from time to time; and

13.1.5 meet the applicable Government Buying Standards applicable to Deliverables which can be found online at: https://www.gov.uk/government/collections/sustainable-procurement-the-government-buying-standards-gbs, as updated from time to time.

13.2 The Supplier indemnifies the Buyer against any costs resulting from any default by the Supplier relating to any applicable Law to do with the Contract.

13.3 The Supplier must appoint a compliance officer who must be responsible for ensuring that the Supplier complies with Law, clause 13.1 and clauses 27 to 34.

14 DATA PROTECTION AND SECURITY

14.1 The Supplier must not remove any ownership or security notices in or relating to the Government Data.

14.2 The Supplier must make accessible back-ups of all Government Data, stored in an agreed off-site location and send the Buyer copies via secure encrypted method upon reasonable request.

[1] https://www.gov.uk/government/publications/ppn-0223-tackling-modern-slavery-in-government-supply-chains

14.3 The Supplier must ensure that any Supplier, Subcontractor, or Subprocessor system holding any Government Data, including back-up data, is a secure system that complies with the security requirements specified in the Order Form or otherwise in writing by the Buyer (where any such requirements have been provided).

14.4 If at any time the Supplier suspects or has reason to believe that the Government Data is corrupted, lost or sufficiently degraded, then the Supplier must immediately notify the Buyer and suggest remedial action.

14.5 If the Government Data is corrupted, lost or sufficiently degraded so as to be unusable the Buyer may either or both:

14.5.1 tell the Supplier to restore or get restored Government Data as soon as practical but no later than 5 Working Days from the date that the Buyer receives notice, or the Supplier finds out about the issue, whichever is earlier; and/or

14.5.2 restore the Government Data itself or using a third party.

14.6 The Supplier must pay each Party's reasonable costs of complying with clause 14.5 unless the Buyer is at fault.

14.7 The Supplier:

14.7.1 must provide the Buyer with all Government Data in an agreed format (provided it is secure and readable) within 10 Working Days of a written request;

14.7.2 must have documented processes to guarantee prompt availability of Government Data if the Supplier stops trading;

14.7.3 must securely destroy all storage media that has held Government Data at the end of life of that media using Good Industry Practice, other than in relation to Government Data which is owned or licenced by the Supplier or in respect of which the Parties are Independent Controllers or Joint Controllers;

14.7.4 securely erase all Government Data and any copies it holds when asked to do so by the Buyer unless required by Law to retain it, other than in relation to Government Data which is owned or licenced by the Supplier or in respect of which the Parties are Independent Controllers or Joint Controllers; and

14.7.5 indemnifies the Buyer against any and all losses incurred if the Supplier breaches clause 14 or any Data Protection Legislation.

14.8 The Parties acknowledge that for the purposes of the Data Protection Legislation, the nature of the activity carried out by each of them in relation to their respective obligations under the Contract dictates the status of each party under the DPA 2018. A Party may act as:

14.8.1 “Controller” in respect of the other Party who is “Processor”;

14.8.2 “Processor” in respect of the other Party who is “Controller”;

14.8.3 “Joint Controller” with the other Party;

14.8.4 “Independent Controller” of the Personal Data where the other Party is also “Controller”,

in respect of certain Personal Data under the Contract and shall specify in Part A Authorised Processing Template of Annex 1 – Processing Personal Data which scenario they think shall apply in each situation.

14.9 Where one Party is Controller and the other Party its Processor

14.9.1 Where a Party is a Processor, the only processing that the Processor is authorised to do is listed in Part A Authorised Processing Template of Annex 1 – Processing Personal Data by the Controller and may not be determined by the Processor. The term "processing" and any associated terms are to be read in accordance with Article 4 of the UK GDPR and EU GDPR (as applicable).

14.9.2 The Processor must notify the Controller immediately if it thinks the Controller's instructions breach the Data Protection Legislation.

14.9.3 The Processor must give all reasonable assistance to the Controller in the preparation of any Data Protection Impact Assessment before starting any processing, which may include, at the discretion of the Controller:

14.9.3.1 a systematic description of the expected processing and its purpose;

14.9.3.2 the necessity and proportionality of the processing operations;

14.9.3.3 the risks to the rights and freedoms of Data Subjects; and

14.9.3.4 the intended measures to address the risks, including safeguards, security measures and mechanisms to protect Personal Data.

14.9.4 The Processor must, in in relation to any Personal Data processed under this Contract:

14.9.4.1 process that Personal Data only in accordance with Part A Authorised Processing Template of Annex 1 – Processing Personal Data unless the Processor is required to do otherwise by Law. If lawful to notify the Controller, the Processor must promptly notify the Controller if the Processor is otherwise required to process Personal Data by Law before processing it.

14.9.4.2 put in place appropriate Protective Measures to protect against a Data Loss Event which must be approved by the Controller.

14.9.4.3 Ensure that:

(a) the Processor Personnel do not process Personal Data except in accordance with this Contract (and in particular Part A Authorised Processing Template of Annex 1 – Processing Personal Data);

(b) it uses best endeavours to ensure the reliability and integrity of any Processor Personnel who have access to the Personal Data and ensure that they:

(i) are aware of and comply with the Processor's duties under this clause 14;

(ii) are subject to appropriate confidentiality undertakings with the Processor or any Subprocessor;

(iii) are informed of the confidential nature of the Personal Data and do not provide any of the Personal Data to any third party unless directed in writing to do so by the Controller or as otherwise allowed by the Contract; and

(iv) have undergone adequate training in the use, care, protection and handling of Personal Data.

(c) the Processor must not transfer Personal Data outside of the UK and/or the EEA unless the prior written consent of the Controller has been obtained and the following conditions are fulfilled:

(d) the transfer is in accordance with Article 45 of the UK GDPR (or section 74A of DPA 2018) and/or the transfer is in accordance with Article 45 of the EU GDPR (where applicable); or

(e) the Controller or the Processor has provided appropriate safeguards in relation to the transfer (whether in accordance with UK GDPR Article 46 or section 75 of the DPA 2018) and/or the transfer is in accordance with Article 46 of the EU GDPR (where applicable) as determined by the Controller which could include relevant parties entering into:

(i) where the transfer is subject to UK GDPR:

(A) the International Data Transfer Agreement (the "**IDTA**"), as published by the Information Commissioner's Office from time to time under section 119A(1) of the DPA 2018 as well as any additional measures determined by the Controller;

(B) the European Commission's Standard Contractual Clauses per decision 2021/914/EU or such updated version of such Standard Contractual Clauses as are published by the European Commission from time to time ("**EU SCCs**"), together with the UK International Data Transfer Agreement Addendum to the EU SCCs (the "**Addendum**") as published by the Information Commissioner's Office from time to time; and/or

(ii) where the transfer is subject to EU GDPR, the EU SCCs,

as well as any additional measures determined by the Controller being implemented by the importing party;

(f) the Data Subject has enforceable rights and effective legal remedies when transferred;

(g) the Processor meets its obligations under the Data Protection Legislation by providing an adequate level of protection to any Personal Data that is transferred; and

(h) the Processor complies with the Controller's reasonable prior instructions about the processing of the Personal Data.

14.9.5 The Processor must at the written direction of the Controller, delete or return Personal Data (and any copies of it) to the Controller on termination of the Contract unless the Processor is required by Law to retain the Personal Data.

14.9.6 The Processor must notify the Controller immediately if it:

14.9.6.1 receives a Data Subject Access Request (or purported Data Subject Access Request);

14.9.6.2 receives a request to rectify, block or erase any Personal Data;

14.9.6.3 receives any other request, complaint or communication relating to either Party's obligations under the Data Protection Legislation;

14.9.6.4 receives any communication from the Information Commissioner or any other regulatory authority in connection with Personal Data processed under this Contract;

14.9.6.5 receives a request from any third Party for disclosure of Personal Data where compliance with the request is required or claims to be required by Law; and

14.9.6.6 becomes aware of a Data Loss Event.

14.9.7 Any requirement to notify under clause 14.9.6 includes the provision of further information to the Controller in stages as details become available.

14.9.8 The Processor must promptly provide the Controller with full assistance in relation to any Party's obligations under Data Protection Legislation and any complaint, communication or request made under clause 14.9.6. This includes giving the Controller:

14.9.8.1 full details and copies of the complaint, communication or request;

14.9.8.2 reasonably requested assistance so that it can comply with a Data Subject Access Request within the relevant timescales in the Data Protection Legislation;

14.9.8.3 any Personal Data it holds in relation to a Data Subject on request;

14.9.8.4 assistance that it requests following any Data Loss Event; and

14.9.8.5 assistance that it requests relating to a consultation with, or request from, the Information Commissioner's Office or any other regulatory authority.

14.9.9 The Processor must maintain full, accurate records and information to show it complies with this clause 14. This requirement does not apply where the Processor employs fewer than 250 staff, unless either the Controller determines that the processing:

14.9.9.1 is not occasional;

14.9.9.2 includes special categories of data as referred to in Article 9(1) of the UK GDPR or Personal Data relating to criminal convictions and offences referred to in Article 10 of the UK GDPR; or

14.9.9.3 is likely to result in a risk to the rights and freedoms of Data Subjects.

14.9.10 The Parties shall designate a Data Protection Officer if required by the Data Protection Legislation.

14.9.11 Before allowing any Subprocessor to process any Personal Data, the Processor must:

14.9.11.1 notify the Controller in writing of the intended Subprocessor and processing;

14.9.11.2 obtain the written consent of the Controller;

14.9.11.3 enter into a written contract with the Subprocessor so that this clause 14 applies to the Subprocessor; and

14.9.11.4 provide the Controller with any information about the Subprocessor that the Controller reasonably requires.

14.9.12 The Processor remains fully liable for all acts or omissions of any Subprocessor.

14.9.13 The Parties agree to take account of any guidance issued by the Information Commissioner's Office or any other regulatory authority.

14.10 Joint Controllers of Personal Data

14.10.1 In the event that the Parties are Joint Controllers in respect of Personal Data under the Contract, the Parties shall implement paragraphs that are necessary to comply with UK GDPR Article 26 based on the terms set out in Part B Joint Controller Agreement *(Optional)* of Annex 1 – Processing Personal Data.

14.11 Independent Controllers of Personal Data

14.11.1 In the event that the Parties are Independent Controllers in respect of Personal Data under the Contract, the terms set out in Part C Independent Controllers *(Optional)* of Annex 1 – Processing Personal Data shall apply to this Contract.

15 WHAT YOU MUST KEEP CONFIDENTIAL

15.1 Each Party must:

15.1.1 keep all Confidential Information it receives confidential and secure;

15.1.2 not disclose, use or exploit the disclosing Party's Confidential Information without the disclosing Party's prior written consent, except for the purposes anticipated under the Contract; and

15.1.3 immediately notify the disclosing Party if it suspects unauthorised access, copying, use or disclosure of the Confidential Information.

15.2 In spite of clause 15.1, a Party may disclose Confidential Information which it receives from the disclosing Party in any of the following instances:

15.2.1 where disclosure is required by applicable Law if the recipient Party notifies the disclosing Party of the full circumstances, the affected Confidential Information and extent of the disclosure;

15.2.2 if the recipient Party already had the information without obligation of confidentiality before it was disclosed by the disclosing Party;

15.2.3 if the information was given to it by a third party without obligation of confidentiality;

15.2.4 if the information was in the public domain at the time of the disclosure;

15.2.5 if the information was independently developed without access to the disclosing Party's Confidential Information;

15.2.6 on a confidential basis, to its auditors or for the purposes of regulatory requirements;

15.2.7 on a confidential basis, to its professional advisers on a need-to-know basis; and

15.2.8 to the Serious Fraud Office where the recipient Party has reasonable grounds to believe that the disclosing Party is involved in activity that may be a criminal offence under the Bribery Act 2010.

15.3 The Supplier may disclose Confidential Information on a confidential basis to Supplier Staff on a need-to-know basis to allow the Supplier to meet its obligations under the Contract. The Supplier shall remain responsible at all times for compliance with the confidentiality obligations set out in this Contract by the persons to whom disclosure has been made.

15.4 The Buyer may disclose Confidential Information in any of the following cases:

15.4.1 on a confidential basis to the employees, agents, consultants and contractors of the Buyer;

15.4.2 on a confidential basis to any Crown Body, any successor body to a Crown Body or any company that the Buyer transfers or proposes to transfer all or any part of its business to;

15.4.3 if the Buyer (acting reasonably) considers disclosure necessary or appropriate to carry out its public functions;

15.4.4 where requested by Parliament; and

15.4.5 under clauses 5.7 and 16.

15.5 For the purposes of clauses 15.2 to 15.4 references to disclosure on a confidential basis means disclosure under a confidentiality agreement or arrangement including terms as strict as those required in clause 15.

15.6 Transparency Information, and Information which is exempt from disclosure by clause 16 is not Confidential Information.

15.7 The Supplier must not make any press announcement or publicise the Contract or any part of it in any way, without the prior written consent of the Buyer and must take all reasonable endeavours to ensure that Supplier Staff do not either.

16 WHEN YOU CAN SHARE INFORMATION

16.1 The Supplier must tell the Buyer within 48 hours if it receives a Request For Information.

16.2 In accordance with a reasonable timetable and in any event within 5 Working Days of a request from the Buyer, the Supplier must give the Buyer full co-operation and information needed so the Buyer can:

16.2.1 comply with any Request For Information

16.2.2 if the Contract has a value over the relevant threshold in Part 2 of the Regulations, comply with any of its obligations in relation to publishing Transparency Information.

16.3 To the extent that it is allowed and practical to do so, the Buyer will use reasonable endeavours to notify the Supplier of a Request For Information and may talk to the Supplier to help it decide whether to publish information under clause 16. However, the extent, content and format of the disclosure is the Buyer's decision in its absolute discretion.

17 INSURANCE

17.1 The Supplier shall ensure it has adequate insurance cover for this Contract.

18 INVALID PARTS OF THE CONTRACT

18.1 If any provision or part-provision of this Contract is or becomes invalid, illegal or unenforceable for any reason, such provision or part-provision shall be deemed deleted, but that shall not affect the validity and enforceability of the rest of this Contract. The provisions incorporated into the Contract are the entire agreement between the Parties. The Contract replaces all previous statements, or agreements whether written or oral. No other provisions apply.

19 OTHER PEOPLE'S RIGHTS IN THE CONTRACT

19.1 No third parties may use the Contracts (Rights of Third Parties) Act ("**CRTPA**") to enforce any term of the Contract unless stated (referring to CRTPA) in the Contract. This does not affect third party rights and remedies that exist independently from CRTPA.

20 CIRCUMSTANCES BEYOND YOUR CONTROL

20.1 Any Party affected by a Force Majeure Event is excused from performing its obligations under the Contract while the inability to perform continues, if it both:

20.1.1 provides written notice to the other Party; and

20.1.2 uses all reasonable measures practical to reduce the impact of the Force Majeure Event.

20.2 Any failure or delay by the Supplier to perform its obligations under the Contract that is due to a failure or delay by an agent, Subcontractor and/or Supplier Staff will only be considered a Force Majeure Event if that third party is itself prevented from complying with an obligation to the Supplier due to a Force Majeure Event.

20.3 Either Party can partially or fully terminate the Contract if the provision of the Deliverables is materially affected by a Force Majeure Event which lasts for 90 days continuously and the consequences of termination in Clauses 11.5.1.2 to 11.5.1.7 shall apply.

20.4 Where a Party terminates under clause 20.3:

20.4.1 each Party must cover its own losses; and

20.4.2 clauses 11.5.1.2 to 11.5.1.7 apply.

21 RELATIONSHIPS CREATED BY THE CONTRACT

21.1 The Contract does not create a partnership, joint venture or employment relationship. The Supplier must represent themselves accordingly and ensure others do so.

22 GIVING UP CONTRACT RIGHTS

22.1 A partial or full waiver or relaxation of the terms of the Contract is only valid if it is stated to be a waiver in writing to the other Party.

23 TRANSFERRING RESPONSIBILITIES

23.1 The Supplier cannot assign, novate or in any other way dispose of the Contract or any part of it without the Buyer's written consent.

23.2 The Buyer can assign, novate or transfer its Contract or any part of it to any Crown Body, public or private sector body which performs the functions of the Buyer.

23.3 When the Buyer uses its rights under clause 23.2 the Supplier must enter into a novation agreement in the form that the Buyer specifies.

23.4 The Supplier can terminate the Contract novated under clause 23.2 to a private sector body that is experiencing an Insolvency Event.

23.5 The Supplier remains responsible for all acts and omissions of the Supplier Staff as if they were its own.

24 SUPPLY CHAIN

24.1 The Supplier cannot sub-contract the Contract or any part of it without the Buyer's prior written consent. The Supplier shall provide the Buyer with the name of any Subcontractor the Supplier proposes to engage for the purposes of the Contract. The decision of the Buyer to consent or not will not be unreasonably withheld or delayed. If the Buyer does not communicate a decision to the Supplier within 10 Working Days of the request for consent then its consent will be deemed to have been given. The Buyer may reasonably withhold its consent to the appointment of a Subcontractor if it considers that:

24.1.1 the appointment of a proposed Subcontractor may prejudice the provision of the Deliverables or may be contrary to its interests;

24.1.2 the proposed Subcontractor is unreliable and/or has not provided reliable goods and or reasonable services to its other customers; and/or

24.1.3 the proposed Subcontractor employs unfit persons.

24.2 If the Buyer asks the Supplier for details about Subcontractors, the Supplier must provide details of all such Subcontractors at all levels of the supply chain including:

24.2.1 their name;

24.2.2 the scope of their appointment; and

24.2.3 the duration of their appointment.

24.3 The Supplier must exercise due skill and care when it selects and appoints Subcontractors.

24.4 For Sub-Contracts in the Supplier's supply chain entered into wholly or substantially for the purpose of performing or contributing to the performance of the whole or any part of this Contract:

24.4.1 where such Sub-Contracts are entered into after the Start Date, the Supplier will ensure that they all contain provisions that; or

24.4.2 where such Sub-Contracts are entered into before the Start Date, the Supplier will take all reasonable endeavours to ensure that they all contain provisions that:

24.4.2.1 allow the Supplier to terminate the Sub-Contract if the Subcontractor fails to comply with its obligations in respect of environmental, social, equality or employment Law;

24.4.2.2 require the Supplier to pay all Subcontractors in full, within 30 days of receiving a valid, undisputed invoice; and

24.4.2.3 allow the Buyer to publish the details of the late payment or non-payment if this 30-day limit is exceeded.

24.5 At the Buyer's request, the Supplier must terminate any Sub-Contracts in any of the following events:

24.5.1 there is a change of control within the meaning of Section 450 of the Corporation Tax Act 2010 of a Subcontractor which isn't pre-approved by the Buyer in writing;

24.5.2 the acts or omissions of the Subcontractor have caused or materially contributed to a right of termination under Clause 11.4;

24.5.3 a Subcontractor or its Affiliates embarrasses or brings into disrepute or diminishes the public trust in the Buyer;

24.5.4 the Subcontractor fails to comply with its obligations in respect of environmental, social, equality or employment Law; and/or

24.5.5 the Buyer has found grounds to exclude the Subcontractor in accordance with Regulation 57 of the Regulations.

24.6 The Supplier is responsible for all acts and omissions of its Subcontractors and those employed or engaged by them as if they were its own.

25 CHANGING THE CONTRACT

25.1 Either Party can request a variation to the Contract which is only effective if agreed in writing and signed by both Parties. The Buyer is not required to accept a variation request made by the Supplier.

26 HOW TO COMMUNICATE ABOUT THE CONTRACT

26.1 All notices under the Contract must be in writing and are considered effective on the Working Day of delivery as long as they're delivered before 5:00pm on a Working Day. Otherwise the notice is effective on the next Working Day. An email is effective at 9am on the first Working Day after sending unless an error message is received.

26.2 Notices to the Buyer or Supplier must be sent to their address or email address in the Order Form.

26.3 This clause does not apply to the service of legal proceedings or any documents in any legal action, arbitration or dispute resolution.

27 DEALING WITH CLAIMS

27.1 If a Beneficiary becomes aware of any Claim, then it must notify the Indemnifier as soon as reasonably practical.

27.2 at the Indemnifier's cost the Beneficiary must:

27.2.1 allow the Indemnifier to conduct all negotiations and proceedings to do with a Claim;

27.2.2 give the Indemnifier reasonable assistance with the Claim if requested; and

27.2.3 not make admissions about the Claim without the prior written consent of the Indemnifier which cannot be unreasonably withheld or delayed.

27.3 The Beneficiary must:

27.3.1 consider and defend the Claim diligently and in a way that does not damage the Beneficiary's reputation; and

27.3.2 not settle or compromise any Claim without the Beneficiary's prior written consent which it must not unreasonably withhold or delay.

28 PREVENTING FRAUD, BRIBERY AND CORRUPTION

28.1 The Supplier shall not:

28.1.1 commit any criminal offence referred to in 57(1) and 57(2) of the Regulations; or

28.1.2 offer, give, or agree to give anything, to any person (whether working for or engaged by the Buyer or any other public body) an inducement or reward for doing, refraining from doing, or for having done or refrained from doing, any act in relation to the obtaining or execution of the Contract or any other public function or for showing or refraining from showing favour or disfavour to any person in relation to the Contract or any other public function.

28.2 The Supplier shall take all reasonable endeavours (including creating, maintaining and enforcing adequate policies, procedures and records), in accordance with Good Industry Practice, to prevent any matters referred to in clause 28.1 and any fraud by the Supplier Staff and the Supplier (including its shareholders, members and directors) in connection with the Contract and shall notify the Buyer immediately if it has reason to suspect that any such matters have occurred or is occurring or is likely to occur.

28.3 If the Supplier notifies the Buyer as required by clause 28.2, the Supplier must respond promptly to their further enquiries, co-operate with any investigation and allow the Audit of any books, records and relevant documentation.

28.4 If the Supplier or the Supplier Staff engages in conduct prohibited by clause 28.1 or commits fraud in relation to the Contract or any other contract with the Crown (including the Buyer) the Buyer may:

28.4.1 require the Supplier to remove any Supplier Staff from providing the Deliverables if their acts or omissions have caused the default; and

28.4.2 immediately terminate the Contract and the consequences of termination in Clause 11.5.1 shall apply.

29 EQUALITY, DIVERSITY AND HUMAN RIGHTS

29.1 The Supplier must follow all applicable employment and equality Law when they perform their obligations under the Contract, including:

29.1.1 protections against discrimination on the grounds of race, sex, gender reassignment, religion or belief, disability, sexual orientation, pregnancy, maternity, age or otherwise; and

29.1.2 any other requirements and instructions which the Buyer reasonably imposes related to equality Law.

29.2 The Supplier must use all reasonable endeavours, and inform the Buyer of the steps taken, to prevent anything that is considered to be unlawful discrimination by any court or tribunal, or the Equality and Human Rights Commission (or any successor organisation) when working on the Contract.

30 HEALTH AND SAFETY

30.1 The Supplier must perform its obligations meeting the requirements of:

30.1.1 all applicable Law regarding health and safety; and

30.1.2 the Buyer's current health and safety policy while at the Buyer’s premises, as provided to the Supplier.

30.2 The Supplier and the Buyer must as soon as possible notify the other of any health and safety incidents or material hazards they’re aware of at the Buyer premises that relate to the performance of the Contract.

31 ENVIRONMENT AND SUSTAINABILITY

31.1 In performing its obligations under the Contract, the Supplier shall, to the reasonable satisfaction of the Buyer:

31.1.1 meet, in all material respects, the requirements of all applicable Laws regarding the environment; and

31.1.2 comply with its obligations under the Buyer's current environmental policy, which the Buyer must provide, and make Supplier Staff aware of such policy.

32 TAX

32.1 The Supplier must not breach any tax or social security obligations and must enter into a binding agreement to pay any late contributions due, including where applicable, any interest or any fines. The Buyer cannot terminate the Contract where the Supplier has not paid a minor tax or social security contribution.

32.2 Where the Supplier or any Supplier Staff are liable to be taxed or to pay National Insurance contributions in the UK relating to payment received under the Contract, the Supplier must both:

32.2.1 comply with the Income Tax (Earnings and Pensions) Act 2003 and all other statutes and regulations relating to income tax, the Social Security Contributions and Benefits Act 1992 (including IR35) and National Insurance contributions; and

32.2.2 indemnify the Buyer against any Income Tax, National Insurance and social security contributions and any other liability, deduction, contribution, assessment or claim arising from or made during or after the Term in connection with the provision of the Deliverables by the Supplier or any of the Supplier Staff.

32.3 If any of the Supplier Staff are Workers who receive payment relating to the Deliverables, then the Supplier must ensure that its contract with the Worker contains requirements that:

32.3.1 the Buyer may, at any time during the term of the Contract, request that the Worker provides information which demonstrates they comply with clause 32.2, or why those requirements do not apply, the Buyer can specify the information the Worker must provide and the deadline for responding;

32.3.2 the Worker's contract may be terminated at the Buyer's request if the Worker fails to provide the information requested by the Buyer within the time specified by the Buyer;

32.3.3 the Worker's contract may be terminated at the Buyer's request if the Worker provides information which the Buyer considers isn’t good enough to demonstrate how it complies with clause 32.2 or confirms that the Worker is not complying with those requirements; and

32.3.4 the Buyer may supply any information they receive from the Worker to HMRC for revenue collection and management.

33 CONFLICT OF INTEREST

33.1 The Supplier must take action to ensure that neither the Supplier nor the Supplier Staff are placed in the position of an actual, potential or perceived Conflict of Interest.

33.2 The Supplier must promptly notify and provide details to the Buyer if an actual, potential or perceived Conflict of Interest happens or is expected to happen.

33.3 The Buyer will consider whether there are any appropriate measures that can be put in place to remedy an actual, perceived or potential Conflict of Interest. If, in the reasonable opinion of the Buyer, such measures do not or will not resolve an actual or potential conflict of interest, the Buyer may terminate the Contract immediately by giving notice in writing to the Supplier where there is or may be an actual or potential Conflict of Interest and Clauses 11.5.1.2 to 11.5.1.7 shall apply.

34 REPORTING A BREACH OF THE CONTRACT

34.1 As soon as it is aware of it the Supplier and Supplier Staff must report to the Buyer any actual or suspected breach of Law, clause 13.1, or clauses 27 to 33.

34.2 The Supplier must not retaliate against any of the Supplier Staff who in good faith reports a breach listed in clause 34.1 to the Buyer or a Prescribed Person.

35 FURTHER ASSURANCES

35.1 Each Party will, at the request and cost of the other Party, do all things which may be reasonably necessary to give effect to the meaning of this Contract.

36 RESOLVING DISPUTES

36.1 If there is a dispute between the Parties, their senior representatives who have authority to settle the dispute will, within 28 days of a written request from the other Party, meet in good faith to resolve the dispute by commercial negotiation.

36.2 If the dispute is not resolved at that meeting, the Parties can attempt to settle it by mediation using the Centre for Effective Dispute Resolution ("**CEDR**") Model Mediation Procedure current at the time of the dispute. If the Parties cannot agree on a mediator, the mediator will be nominated by CEDR. If either Party does not wish to use, or continue to use mediation, or mediation does not resolve the dispute, the dispute must be resolved using clauses 36.3 to 36.5.

36.3 Unless the Buyer refers the dispute to arbitration using clause 36.4, the Parties irrevocably agree that the courts of England and Wales have exclusive jurisdiction. :

36.4 The Supplier agrees that the Buyer has the exclusive right to refer any dispute to be finally resolved by arbitration under the London Court of International Arbitration Rules current at the time of the dispute. There will be only one arbitrator. The seat or legal place of the arbitration will be London and the proceedings will be in English.

36.5 The Buyer has the right to refer a dispute to arbitration even if the Supplier has started or has attempted to start court proceedings under clause 36.3, unless the Buyer has agreed to the court proceedings or participated in them. Even if court proceedings have started, the Parties must do everything necessary to ensure that the court proceedings are stayed in favour of any arbitration proceedings if they are started under clause 36.4.

36.6 The Supplier cannot suspend the performance of the Contract during any dispute.

37 WHICH LAW APPLIES

37.1 This Contract and any issues or disputes arising out of, or connected to it, are governed by English law.

V. Annex 1 – Processing Personal Data

Part A Authorised Processing Template

This Annex shall be completed by the Controller, who may take account of the view of the Processor, however the final decision as to the content of this Schedule shall be with the Controller at its absolute discretion.

The contact details of the Controller's Data Protection Officer are: [redacted]
[redacted]@gamblingcommission.gov.uk

The contact details of the Processor's Data Protection Officer are: [redacted]@lse.ac.uk

The Processor shall comply with any further written instructions with respect to processing by the Controller.

Any such further instructions shall be incorporated into this Annex.

Description of authorised processing	Details
Identity of Controller and Processor / Independent Controllers / Joint Controllers for each category of Personal Data	***Data controller: Gambling Commission*** ***Data processor:*** [redacted]
Subject matter of the processing	GSGB Step 3 experimental data
Duration of the processing	January 2024
Nature and purposes of the processing	To analyse survey responses for review of GSGB methodology
Type of Personal Data being processed	No personal data will be processed as part of this contract, all survey data is anonymised.
Categories of Data Subject	Survey responses to Gambling Survey for Great Britain
Plan for return and destruction of the data once the processing is complete UNLESS requirement under law to preserve that type of data	Delete SPSS file once project has been completed
Locations at which the Supplier and/or its Subcontractors process Personal Data under this Contract	

and International transfers and legal gateway	
Protective Measures that the Supplier and, where applicable, its Subcontractors have implemented to protect Personal Data processed under this Contract against a breach of security (insofar as that breach of security relates to data) or a Data Loss Event	Data is anonymised and will be deleted upon completion of project

38 DATA PROTECTION BREACH

38.1 Each Party shall notify the other Party promptly and without undue delay, and in any event within 48 hours, upon becoming aware of any Data Loss Event or circumstances that are likely to give rise to a Data Loss Event, providing the other Party and its advisors with:

38.1.1 sufficient information and in a timescale which allows the other Party to meet any obligations to report a Data Loss Event under the Data Protection Legislation;

38.1.2 all reasonable assistance, including:

38.1.2.1 co-operation with the other Party and the Information Commissioner investigating the Data Loss Event and its cause, containing and recovering the compromised Personal Data and compliance with the applicable guidance;

38.1.2.2 co-operation with the other Party including using such best endeavours as are directed by the Buyer to assist in the investigation, mitigation and remediation of a Data Loss Event;

38.1.2.3 co-ordination with the other Party regarding the management of public relations and public statements relating to the Data Loss Event; and/or

38.1.2.4 providing the other Party and to the extent instructed by the other Party to do so, and/or the Information Commissioner investigating the Data Loss Event, with complete information relating to the Data Loss Event, including the information set out in Paragraph 3.2 of this Part B Joint Controller Agreement *(Optional)* of Annex 1 – Processing Personal Data;.

38.2 Each Party shall use best endeavours to restore, re-constitute and/or reconstruct any Personal Data where it has lost, damaged, destroyed, altered or corrupted as a result of a Data Loss Event which is the fault of that Party as if it was that Party's own data at its own cost with all possible speed and shall provide the other Party with all reasonable assistance in respect of any such Data Loss Event, including providing the other Party, as soon as possible and within 48 hours of the Data Loss Event relating to the Data Loss Event, in particular:

38.2.1 the nature of the Data Loss Event;

38.2.2 the nature of Personal Data affected;

38.2.3 the categories and number of Data Subjects concerned;

38.2.4 the name and contact details of the Party's Data Protection Officer or other relevant contact from whom more information may be obtained;

38.2.5 measures taken or proposed to be taken to address the Data Loss Event; and

38.2.6 a description of the likely consequences of the Data Loss Event.

39 AUDIT

39.1 The Supplier shall permit:

39.1.1 the Buyer, or a third-party auditor acting under the Buyer's direction, to conduct, at the Buyer's cost, data privacy and security audits, assessments and inspections concerning the Supplier's data security and privacy procedures relating to Personal Data, its compliance with this of this Part B Joint Controller Agreement *(Optional)* of Annex 1 – Processing Personal Data; and the Data Protection Legislation; and/or

39.1.2 the Buyer, or a third-party auditor acting under the Buyer's direction, access to premises at which the Personal Data is accessible or at which it is able to inspect any relevant records, including the record maintained under Article 30 UK GDPR by the Supplier so far as relevant to the Contract, and procedures, including premises under the control of any third party appointed by the Supplier to assist in the provision of the Deliverables.

39.2 The Buyer may, in its sole discretion, require the Supplier to provide evidence of the Supplier's compliance with Paragraph 4.1 of this Part B Joint Controller Agreement *(Optional)* of Annex 1 – Processing Personal Data in lieu of conducting such an audit, assessment or inspection.

40 IMPACT ASSESSMENTS

40.1 The Parties shall:

40.1.1 provide all reasonable assistance to each other to prepare any Data Protection Impact Assessment as may be required (including provision of detailed information and assessments in relation to processing operations, risks and measures); and

40.1.2 maintain full and complete records of all processing carried out in respect of the Personal Data in connection with the Contract, in accordance with the terms of Article 30 UK GDPR.

41 ICO GUIDANCE

41.1 The Parties agree to take account of any non-mandatory guidance issued by the Information Commissioner or any other regulatory authority. The Buyer may on not less than thirty (30) Working Days' notice to the Supplier amend the Contract to ensure that it complies with any guidance issued by the Information Commissioner and/or any relevant Crown Body.

42 LIABILITIES FOR DATA PROTECTION BREACH

42.1 If financial penalties are imposed by the Information Commissioner on either the Buyer or the Supplier for a Data Loss Event ("**Financial Penalties**") then the following shall occur:

42.1.1 if in the view of the Information Commissioner, the Buyer is responsible for the Data Loss Event, in that it is caused as a result of the actions or inaction of the Buyer, its employees, agents, contractors (other than the Supplier) or systems and procedures controlled by the Buyer, then the Buyer shall be responsible for the payment of such Financial Penalties. In this case, the Buyer will conduct an internal audit and engage at its reasonable cost when necessary, an independent third party to conduct an audit of any such Data Loss Event. The Supplier shall provide to the Buyer and its third party investigators and auditors, on request and at the Supplier's reasonable cost, full cooperation and access to conduct a thorough audit of such Data Loss Event;

42.1.2 if in the view of the Information Commissioner, the Supplier is responsible for the Data Loss Event, in that it is not a Data Loss Event that the Buyer is responsible for, then the Supplier shall be responsible for the payment of these Financial Penalties. The Supplier will provide to the Buyer and its auditors, on request and at the Supplier's sole cost, full cooperation and access to conduct a thorough audit of such Data Loss Event; or

42.1.3 if no view as to responsibility is expressed by the Information Commissioner, then the Buyer and the Supplier shall work together to investigate the relevant Data Loss Event and allocate responsibility for any Financial Penalties as outlined above, or by agreement to split any Financial Penalties equally if no responsibility for the Data Loss Event can be apportioned. In the event that the Parties do not agree such apportionment then such Dispute shall be referred to the Dispute Resolution Procedure set out in clause 36 of the Conditions (Resolving disputes).

42.2 If either the Buyer or the Supplier is the defendant in a legal claim brought before a court of competent jurisdiction ("**Court**") by a third party in respect of a Data Loss Event, then unless the Parties otherwise agree, the Party that is determined by the final decision of the court to be responsible for the Data Loss Event shall be liable for the losses arising from such Data Loss Event. Where both Parties are liable, the liability will be apportioned between the Parties in accordance with the decision of the Court.

42.3 In respect of any losses, cost claims or expenses incurred by either Party as a result of a Data Loss Event (the "**Claim Losses**"):

42.3.1 if the Buyer is responsible for the relevant Data Loss Event, then the Buyer shall be responsible for the Claim Losses;

42.3.2 if the Supplier is responsible for the relevant Data Loss Event, then the Supplier shall be responsible for the Claim Losses: and

42.3.3 if responsibility for the relevant Data Loss Event is unclear, then the Buyer and the Supplier shall be responsible for the Claim Losses equally.

42.4 Nothing in either Paragraph 7.2 or Paragraph 7.3 of this Part B Joint Controller Agreement *(Optional)* of Annex 1 – Processing Personal Data shall preclude the Buyer and the Supplier reaching any other agreement, including by way of compromise with a third party complainant or claimant, as to the apportionment of financial responsibility for any Claim Losses as a result of a Data Loss Event, having regard to all the circumstances of the Data Loss Event and the legal and financial obligations of the Buyer.

43 TERMINATION

43.1 If the Supplier is in Material Breach under any of its obligations under this of this Part B Joint Controller Agreement *(Optional)* of Annex 1 – Processing Personal Data;, the Buyer shall be entitled to terminate the Contract by issuing a termination notice to the Supplier in accordance with clause 11 of the Conditions (Ending the contract).

44 SUB-PROCESSING

44.1 In respect of any processing of Personal Data performed by a third party on behalf of a Party, that Party shall:

44.1.1 carry out adequate due diligence on such third party to ensure that it is capable of providing the level of protection for the Personal Data as is required by the Contract, and provide evidence of such due diligence to the other Party where reasonably requested; and

44.1.2 ensure that a suitable agreement is in place with the third party as required under applicable Data Protection Legislation.

45 DATA RETENTION

45.1 The Parties agree to erase Personal Data from any computers, storage devices and storage media that are to be retained as soon as practicable after it has ceased to be necessary for them to retain such Personal Data under applicable Data Protection Legislation and their privacy policy (save to the extent (and for the limited period) that such information needs to be retained by the Party for statutory compliance purposes or as otherwise required by the Contract), and taking all further actions as may be necessary to ensure its compliance with Data Protection Legislation and its privacy policy.

VI. Annex 2 – Specification

Project Brief: A review of the Gambling Survey for Great Britain

Introduction

The Gambling Commission has been developing a new approach for collecting data on adult gambling participation and the prevalence of problem gambling in Great Britain. The aim being to develop a single high quality methodology which provides authoritative research into consumer gambling behaviours. The principles for the project, upon which we consulted back in 2020, are:

- to develop a single gold standard population survey for the whole of Great Britain
- to consolidate current surveys into one population survey
- to review and refresh the gambling activities included in the participation questions
- to improve the frequency and turnaround time of the survey data
- to explore more future proof data collection methods
- to pilot a new methodology and subject to a satisfactory pilot, to implement a new methodology [from 2022].

The new survey, called the Gambling Survey for Great Britain (GSGB), has started data collection and will first report in 2024. The survey has been developed in collaboration with NatCen Social Research and the University of Glasgow.

The GSGB uses a push to web methodology. A random sample of households across Great Britain are invited to take part in the survey with up to 2 adults per household allowed to take part. Respondents can choose to complete the survey either online or via a postal survey, with 2 copies of the postal survey being included with the 2nd reminder letter. Respondents receive a £10 voucher for completing the survey.

More information about the development of the GSGB can be found here. Participation and the prevalence of problem gambling (gamblingcommission.gov.uk)

Specification

We would like to commission a review of the GSGB's methodological approach against our objectives. The review should build on the work undertaken for GambleAware in 2021 to understand best practice for estimating gambling participation and prevalence of gambling harms in Great Britain.

The review should:

1. Assess the GSGB methodological approach against best practice considering the context of current survey approaches
2. Analyse the likely impact of the methodological approach on estimates of gambling participation and prevalence of gambling harms
3. Make recommendations for improvement

Timescales

Draft report to be submitted in early January.

Outputs required

We require a written report detailing the findings of the review, with the option for the findings to be presented to the Commission either in person or online.

The report will be structured in the following way:

1. Introduction and context, setting out the recent and current landscape for general population survey designs
2. A brief history of how surveys of gambling behaviours in the UK, focusing on the key estimation challenges
3. A description and critical assessment of the proposed design of the Gambling Survey for Great Britain
4. Recommendations for design improvements and future development options
5. Summary and Conclusion

The report should be independently published by the author. The Gambling Commission will link to the report from its website.

Cost

The cost of the review and the written report will be £9,600 based on £1,200 per day for eight days work. VAT is not applicable for this project.

VII. [Annex 3 – Charges] *(Not used)*

VIII. [Annex 4 – Supplier Tender] *(Not used)*

IX. [Annex 5 – Optional IPR Clauses] *Not used*

From: [redacted]
To: Sturgis,P
Subject: RE: GSGB Methodology Review
Date: 11 January 2024 09:30:00

Hi Patrick

The data dictionary is in development at the moment, but if you want to let us know which variables you are most interested in we can point you in the right direction of which variable to use and what the value labels are.

Thanks

[redacted]

From: Sturgis,P [redacted]@lse.ac.uk>
Sent: Wednesday, January 10, 2024 7:45 PM
To: [redacted] <[redacted]@gamblingcommission.gov.uk>
Subject: Re: GSGB Methodology Review

CAUTION: This email is from an external source - be careful of attachments and links

Hi [redacted] you are correct that the variables and what they measure is a bit confusing, not least as I don't use SPSS. Do you have a document with variable and value labels?

Best wishes,

Patrick

> On 9 Jan 2024, at 17:29, [redacted] <[redacted]@gamblingcommission.gov.uk> wrote:
>
> Hi Patrick
>
> Thanks for signing, I am attaching a copy of the contract which we have now also signed.
>
> I have also attached a copy of the Step 3 experimental data in SPSS. The variable named 'Interview Mod' shows if the questionnaire was complete on paper or online and the weighting can be found in Row 492 'Gambling Experiment Step 3 final weight'.
>
> If you have any other questions about the dataset please shout as some of the labelling is a bit confusing.
>
> Look forward to receiving a copy of your report.
>
> Thanks
>
> [redacted]
>
> ---
>
> **From:** Sturgis,P [redacted]@lse.ac.uk>
> **Sent:** Tuesday, January 9, 2024 12:19 PM
> **To:** [redacted] <[redacted]@gamblingcommission.gov.uk>
> **Subject:** Re: GSGB Methodology Review
>
> **CAUTION:** This email is from an external source - be careful of attachments and links

Hi [redacted] signed form attached. I don't think I will be able to include analysis of this data in the report as for my own purposes I need to deliver the report on the 15th. [redacted] should be able to take a look at the paper/web contrast though and can send over an informal note of that. I can also send you a short note about the analysis of the HSE data looking at effects of the presence of others in the household during the interview.

Best,

Patrick

> On 8 Jan 2024, at 17:15, [redacted] [redacted]@gamblingcommission.gov.uk> wrote:
>
> Hi Patrick
>
> I have attached a draft contract which if you are in agreement with, will allow me to share the Step 3 experimental data with you. The important bit is Annex 1 which refers to the processing of the data in the data file for the purposes of the this project only, and requests you to delete the file upon completion of the project. Apologies it is quite formal (and we wouldn't normally have this in place for a project of this size) but I have been advised by our Information Management team and Procurement team that we'll need an agreement like this in order to share the data.
>
> If you are happy to sign it please return to me and I will then return a signed copy from our end along with the data.
>
> We would be happy to delay the delivery of the draft report if it meant you had time to include some analysis from the Step 3 data in the report?
>
> The additional analysis you have done on the presence of another person in the household is really interesting. It was our intention to repeat the analysis NatCen did with the pilot data once we have collected more GSGB data to see if the findings hold true. Would be good if you are able to share the findings with me separately.
>
> Thanks
>
> [redacted]
>
> ---
>
> **From:** Sturgis,P [redacted]@lse.ac.uk>
> **Sent:** Monday, January 8, 2024 2:47 PM
> **To:** [redacted] <[redacted]@gamblingcommission.gov.uk>
> **Subject:** Re: GSGB Methodology Review
>
> **CAUTION:** This email is from an external source - be careful of attachments and links
>
> Many thanks for this [redacted] I don't think I will have time to include analysis of the step 3 data in my report if I am to deliver it to you on the 15th, as I intend to but it

would still be good to have access to it if that is possible.

On the issue of whether having other household members present when completing the PGSI affects the estimates, I have had another look at the data given that the NatCen report comes to a different conclusion to our 2022 analysis of the HSE. This time I combined the 2016 and 2018 HSE data and fitted the model only for respondents who reported gambling in the past year. Controlling for age and sex, this shows significant and quite large effects for presence of other people during the interview. But interpretation of this is complicated because we may see these patterns for substantive as well as methodological reasons. For example, the presence of a spouse during the interview reduces the odds of PGSI > 1 by 30%. One might interpret this as showing that respondents are less willing to admit to gambling harm when their partner is present during the interview. However, we might also expect a spouse to be a protective factor for problem gambling and, indeed, if we include marital status in the model, the effect of having a spouse present is no longer statistically significant. So, it is having a spouse per se rather than having one present in the interview that seems to be key but including only the latter picks up the effect of the former, so to speak. Similarly, the presence of someone from outside the household is associated with having a *higher* PGSI which seems unlikely to be a measurement error but rather a 'flag' for being a problem gambler. I don't think I'll include this in my report but happy to share it with you separately.

Best,

Patrick

> On 8 Jan 2024, at 12:59, [redacted]
> <[redacted]@gamblingcommission.gov.uk> wrote:
>
> Hi Patrick
>
> Glad to hear the report is progressing well.
>
> The answers to your questions are as follows:
>
> 1. Pilot fieldwork ran from 05/01/22 to 20/02/22
> 2. Response rates (at the address-level: a questionnaire was completed by at least 1 adult in eligible addresses).

Stage (Experimental)	**Fieldwork dates**	**Response rate**
Step 1	17 Aug 2022 – 6 Oct 2022	18%
Step 2	11 Oct 2022 – 22 Nov 2022	18%
Step 3	19 Apr 2023 – 12 June 2023	17%

> 3. The analysis you refer to can be found in Section 5.4 of this report:https://assets.ctfassets.net/j16ev64qyf6l/9nHcpQWxII2enaFkRG5qI/e00ba014377465360031884 0b2d2d8b5/Gambling_survey_Pilot_stage_Methodology_review_report_FINAL.docx
>
> I am also trying to find a way we can share the Step 3 experimental

data with you, current advice from our Information Management team is to set up a short form contract between ourselves which includes a section on data sharing. I am just trying to get the wording agreed so will keep you posted as don't want that to hold up the completion of your report.

If you need any further information just let me know.

Thanks

[redacted]

From: Sturgis,P <[redacted]@lse.ac.uk>
Sent: Friday, January 5, 2024 1:20 PM
To: [redacted] <[redacted]@gamblingcommission.gov.uk>
Subject: Re: GSGB Methodology Review

CAUTION: This email is from an external source - be careful of attachments and links

Hello [redacted]

I am making good progress with the report. A few pieces of information I couldn't locate are the fieldwork dates for the 2021/22 pilot, the response rate for the experiment 3 survey and the multivariate analysis referred to in the section on social desirability bias in the draft technical report (it references an analysis in Ashford et al (2022) which finds 1.5 higher odds of PGSI>1 when other household members are present but I cannot find any reference to that analysis in the Ashford et al report. Can you help me with these?

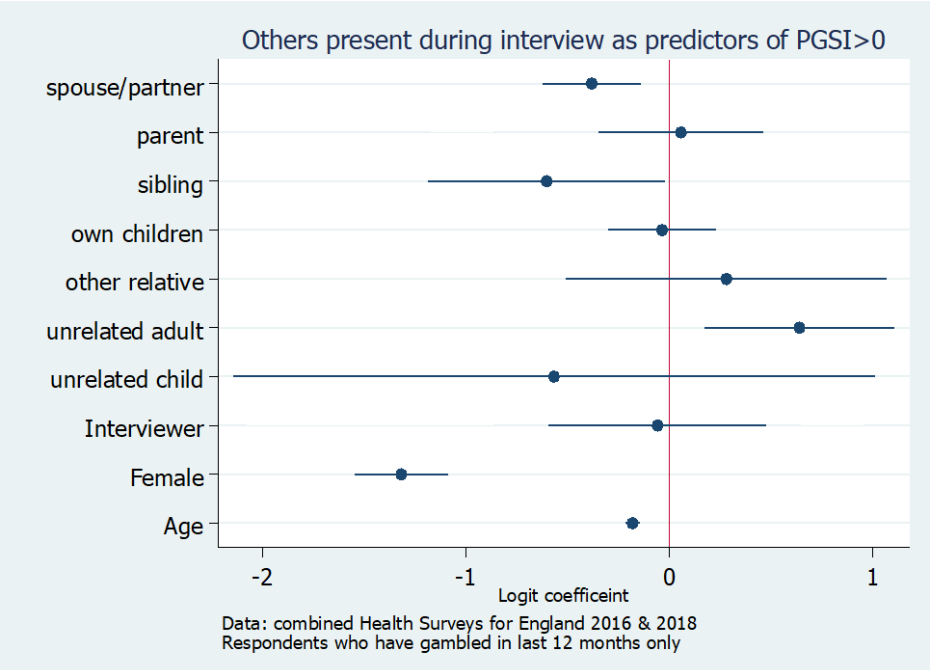
Best wishes,

Patrick

Other household members present during the interview

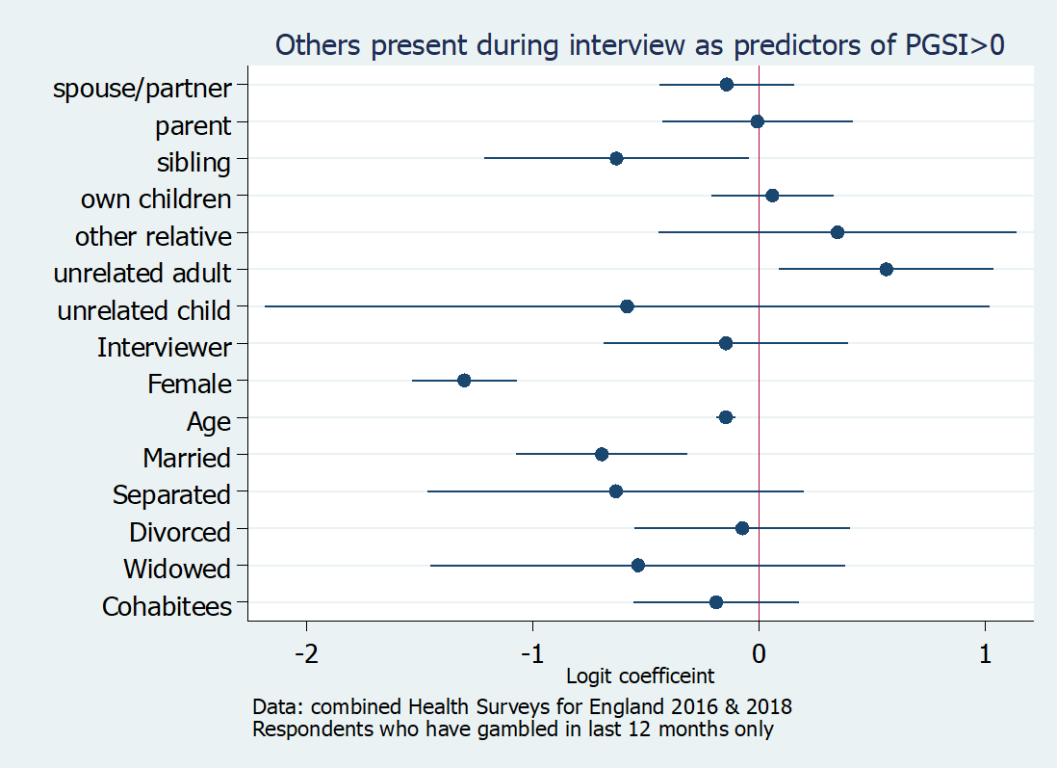
In our report for GambleAware, [redacted] and I used variables in the 2018 HSE which record who else was present during the interview as a means of identifying socially desirable responding on the PGSI. The logic here was that social desirability pressures will be higher when others are present so we would expect lower PGSI scores when others are present, all things equal. In our analysis we did not find a significant difference on PGSI when other household members were present. However, in the report of the 2022 pilot survey, Ashford et al report finding 1.5 higher odds of a PGSI score greater than 1 when other household members were present.

Given the inconsistent findings, I decided to take another look at this. For this, I combined the 2016 and 2018 HSEs as I can see no reason to think that social desirability pressures would be different across the two survey years. I also look only at respondents who reported having gambled in the previous 12 months. The plot below shows the coefficient estimates and their 95% confidence intervals for a model which includes the different categories of others present during the interview, controlling for respondent age and sex. It shows that having a spouse/partner or sibling present during the interview was associated with significantly lower PGSI>0.



This might be taken as evidence of socially desirable responding. Interestingly, however, the presence of an unrelated adult during the interview was associated with a significantly higher PGSI score. It is difficult to think how this could be attributed to a measurement bias. Rather, it seems more likely that having an unrelated adult present during the interview serves as a 'flag' for problem gambling.

The problem here is that there are substantive as well as methodological reasons to expect the presence of a household member to affect the PGSI responses. For example, we might expect that a spouse/partner provides a 'protective' effect against problem gambling, or that problem gamblers are more likely to select out of cohabitation partnerships. So, the spouse/partner coefficient may arise not because the spouse/partner is present during the interview but because there is a spouse/partner at all. We can test this by including marital status in the model. We are now testing the effect of a spouse/partner being present during the interview, conditional on there being a spouse/partner at all. The figure below shows the estimates from such a model.



Now we find that the coefficient for spouse/partner is no longer significant but the coefficient for being married/cohabiting is significant and negative. In short, in order for the

‘others present’ variables to be interpreted as indicative of socially desirable responding, it is necessary to include appropriate controls in the model to account for these kinds of substantive effects.

Assessment of the Great British Gambling Survey (GBGS)

Professor Patrick Sturgis, London School of Economics and Political Science

Background

The core objective of the Gambling Commission is to safeguard consumers of gambling services and the wider public by monitoring and regulating gambling in a way that makes it both safe and fair. As part of this remit, under section 26 of the 2005 Gambling Act, the Commission has a duty to collect and disseminate evidence about the extent and nature of the gambling behaviour of the general public in Great Britain. It largely, though not entirely, fulfils this remit through the periodic collection of general population surveys which ask adult respondents to report on their frequency of gambling, the types of gambling they participate in, and the harms they experience from it.

This is a challenging task. Gambling behaviour and its associated psychological impacts on individuals who gamble as well as their friends and families can only feasibly be collected through error-prone self-reports. Given the widespread negative social norms around gambling, particularly harmful gambling, obtaining representative samples and accurate response data is at the more difficult end of what survey researchers seek to measure in general populations.

Historically, the Gambling Commission has employed the longstanding 'gold standard' methodology of random sampling and face-to-face interviewing (with respondent self-completion for sensitive questions) for collecting this data. The first such survey carried out in Britain was the 1999 British Gambling Prevalence Survey (BGPS), though this preceded the existence of the Commission and was funded by the gambling charity GamCare. The 1999 BGPS used a multi-stage, stratified sample design with postcode sectors randomly sampled from the Postcode Address File (PAF). Addresses, then households and individuals, were sampled randomly and sequentially within these primary sampling units (PSUs). This first sweep of the BGPS achieved a response rate of 65%, which was quite typical for this type of design at that time, yielding an achieved sample size of 7680 individuals.

Subsequent BGP surveys, now funded by the Gambling Commission and using the same sample design, followed in 2007 and 2010. While the sample sizes of these later surveys remained at the same approximate level (9000 and 7756, respectively), the response rates were considerably lower, at 47%. This is still high by contemporary standards but the decline compared to earlier years would naturally raise concerns about the accuracy of the survey's population estimates.

Although the cost of these surveys is not publicly available information, it is safe to assume that, like other face-to-face interview surveys during this period, they were rising by considerably more than inflation from one year to the next. And this was at a time of increasing pressure on survey research budgets, falling as it did at the outset of the coalition government's programme of budgetary austerity.

Following the 2010 BGPS, the costs of delivering a sample of this design had become prohibitively expensive in this context and the Commission looked for other ways of fulfilling its evidential remit in a more cost-effective manner. It ultimately settled on an approach which involved running question modules within the Health Surveys for England, Wales, and Scotland on a periodic basis (in England, gambling surveys were conducted in 2012, 2016 and 2018). Great Britain estimates were produced by combining the data across these national surveys, though this was a somewhat complicated process given differences in methodology and timing of the surveys across nations.

These national health surveys use the same basic sample design and data collection mode as the BGPS, so the time-series estimates were, in this respect, comparable. In order to obtain more frequent estimates for key variables of interest, the Health surveys were supplemented with a Computer Assisted Telephone Interview (CATI) survey, with results published on a quarterly and annual basis. However, given the differences in sample design, mode of administration, and question content, making direct comparisons between the CATI and health survey estimates required strong assumptions. Additionally, the Gambling Commission did not have a satisfactory level of control over the timing of the inclusion of gambling modules within the health surveys, nor of the volume and content of the questions that could be included.

For these reasons, in 2020, the Commission initiated a consultation on gambling survey research, with the intention of using the findings to transition to a bespoke survey design that would deliver timely and high-quality estimates of gambling participation, prevalence, and harm. Before turning to an assessment of the outcome of that consultation, I first consider how the development of the new survey design sits within the broader landscape of survey research over the past fifteen years or so.

The Changing Survey Landscape

The development of the methodological infrastructure for measuring gambling behaviour in Great Britain would, in many respects, serve as a useful case study of the changing pattern of survey research more generally over the past fifteen to twenty years. As response rates

continued to decline and survey costs increased, survey commissioners sought new approaches to obtaining cost-effective, representative, high-quality survey data for general populations. While this led to a multiplicity of new methodological approaches, the single biggest and most important development in the 21st Century survey landscape was the widespread transition from interviewer administration to online self-completion (Callegaro et al. 2014).

Online self-completion provides substantial cost savings compared to interviewer administered modes. For example, the American Community Survey estimated a cost of $10 per online completion compared to $192 for a face-to-face interview (Griffin, 2011). While the unit cost of an online self-completion is lower than interviewer administration, the marginal cost of each additional interview is even lower, meaning that sample sizes can be increased by large amounts for a comparatively modest additional outlay. This means it is possible to conduct more granular analyses for a fixed cost, producing robust estimates for small population sub-groups.

As well as the key benefit of cost efficiency, online self-completion offers other attractive features, such as greater flexibility over when respondents complete the questionnaire and the ability to use audio and visual capabilities or 'passive' data collection using online digital devices (Lessof and Sturgis 2018). For example, researchers are now starting to capture geographical mobility and online digital behaviour passively using apps and 'data donation', opening up exciting new possibilities for the types and volume of data that can be collected in surveys (Bosch and Revilla 2022).

Online self-completion, like all self-completion methods, also has desirable properties when measuring socially undesirable attitudes and behaviours because respondents are less willing to provide accurate responses to questions on such topics in the presence of an interviewer (Tourangeau and Smith 1996). This is clearly of high relevance to a survey of gambling behaviour, where there are good grounds to believe that the presence of an interviewer induces a downward bias on estimates of the prevalence of gambling harm (Sturgis and Kuha 2022).

The main barrier to the uptake of online self-completion designs has been the lower response rates they have tended to achieve compared to face-to-face interview designs. Low response rates increase the risk of biased estimates where the propensity to respond to the survey is correlated with the variable(s) of interest. However, this concern has diminished somewhat in recent years for two main reasons. First, push-to-web designs have started to achieve higher response rates while the reverse has been the case for in-person interview surveys, as technological and societal change has tended to favour the former type

of design over the latter. Second, in recent years survey methodologists have consistently found that the correlation between response rate and nonresponse bias is considerably weaker than has conventionally been assumed (Groves and Peytcheva 2008; Sturgis et al. 2017).

Most of the early online surveys carried out during the 2000s used opt-in (non-probability) sampling, which served as a barrier to the use of the online mode for official statistics and other high quality survey vehicles. A corresponding growth in online probability surveys was hindered by high rates of 'off-liners' in the general population, slow internet connections, and a lack of suitable sampling frames of the online population. However, as the size of the offline population has continued to decline, advances in address-based sampling, improved connection speeds and device sophistication have facilitated the growth of online probability surveys (Cornesse et al. 2020) and these are now increasingly common, both in the UK and overseas.

Survey commissioners who would previously not have considered a web survey due to concerns over sample and data quality are, therefore, now increasingly making the transition to the online self-completion mode of administration. Many UK surveys have already made, or will soon be making, this change including but not limited to the British Social Attitudes survey, the Labour Force survey, the European Social Survey, the National Survey of Sexual Attitudes and Lifestyles, the Participation survey (formerly Taking Part), the British Election Survey, and Understanding Society.

This shift from in-person to online self-completion was already well underway in the early 2010s but was accelerated significantly during the Covid-19 pandemic, when in-home interviewing was brought to a sudden halt in March 2020. The pandemic not only forced the pace of technological change, it also increased the facility of the general population with online digital devices and accelerated the expectation that transactions and interactions be accomplished online rather than through in-person interaction.

Anecdotally at least, the pandemic also seems to have had a negative impact on people's willingness to invite survey interviewers into their homes, with post-pandemic response rates notably lower in the small number of surveys that have reverted to in-person interviews. The difficulty of maintaining interviewer field forces during the pandemic and the subsequent shortages experienced in the UK labour market have also been factors militating against a post-pandemic return to face-to-face interviewing.

Online probability survey designs currently fall under two broad methodological approaches in the UK. The first is a stand-alone 'push-to-web' method in which respondents are randomly sampled from an address-based frame (PAF) and invited through the mail to

complete a single survey online for a small monetary incentive. The second is an online probability panel, where respondents are recruited to become members of a 'standing panel' who receive regular invitations to complete surveys, again for small monetary incentives. The mode of recruitment for probability panels has been through both face-to-face interview, or mail push-to-web, though the latter is increasingly becoming the norm for the reasons noted above regarding the cost and limitations of in-person interviewing.

In choosing between a standalone push-to-web and an online probability panel, the main considerations will be response rate, sample size, data quality, and cost. While costs will, all things equal, generally be lower when using a panel, standalone surveys will achieve a somewhat higher response rate than can be obtained from a panel due to the attrition that occurs after the recruitment survey in the latter design. The sample size available through a panel will also have a lower maximum, so if a large sample is required a standalone survey is likely to be the best option. There are also potential data quality issues that arise through panel membership, notably the possibility of 'practice effects' or 'panel conditioning', where respondents' answers are affected by their participation in previous surveys (Sturgis, Allum, and Brunton-Smith 2009).

Both push-to-web and panel designs must deal with the issue of the minority of the population who are not able (or choose not) to have access to the internet. Studies have shown that, although this group is small, it is demographically, behaviourally, and attitudinally distinct, such that their exclusion can result in biased estimates (Cornesse et al. 2022). One approach here is to provide internet access and a mobile device to enable 'offliners' to complete surveys, though this is only practical for probability panels and has two problematic limitations. First, a large minority of the offliner group have *chosen* not to be online and so offering them online access is not a solution. Second, offering online access is likely to change the characteristics of an individual who would otherwise be offline and so will potentially produce biased estimates, for this sub-group at least.

Offliners can also be included in online probability surveys via telephone interview, or a paper questionnaire and both approaches are currently used in the UK context. Telephone interviewing has the benefit of enabling complex routing and integration of information from previous answers, although there is a substantial risk of measurement mode differences negatively affecting comparability with online response data. Paper questionnaires have the inverse properties of greater comparability in terms of measurement but not allowing routing and previous answer integration. Paper questionnaires generally need to be shorter than online and telephone interviews in order to achieve comparable unit and item response

rates. This means surveys sometimes include some questions that are asked in the online part of the survey only.

Another difficult issue that push-to-web sampling must grapple with is the selection of respondents within households where the design seeks to select a single individual, as is common for in-person interview surveys. This is done by the interviewer in face-to-face surveys. Existing research has shown that it is difficult to get respondents to implement random selection procedures successfully (Williams, 2016). An alternative approach to within household selection of a single adult is to request interviews with all eligible household members, thereby removing (or reducing) the potential for selection bias at this stage, albeit at the expense of introducing the additional potential for nonresponse amongst other household members. Some push-to-web surveys ask for interviews with all adults in a household, up to a maximum of four as this covers the vast majority of households in the UK. Although taking multiple adults at each address can increase sampling variance due to within household dependencies, this is usually compensated for by the gain in efficiency from reduced variance in design weights compared to a single adult design.

A disadvantage of allowing up to four interviews per household is that it creates an incentive for smaller households to fabricate interviews when there is a monetary incentive for each completion. A compromise design is to allow up to two interviews per household. Because approximately 85% of UK households contain fewer than three adults, in only a minority of households do the residents have any discretion over who completes the survey in this design. There is also less incentive for households to fabricate interviews when the maximum number of fake interviews per household is one. A study by Kantar Public (now Verian) found there was little difference on survey outcomes between these different approaches to respondent selection (Williams 2019).

The growing difficulty of implementing conventional survey modes has also served to sharpen the imperative to transition surveys online. Telephone interviewing – the main historical alternative to face-to-face interviews - is no longer able to provide sufficient cost savings or sample quality to make it a viable option. Although never as widely used in the UK as in other parts of the world, the trend toward a much-reduced volume of telephone interviewing that has been documented in the US (Olson et al. 2021) is also evident in the UK, and for broadly similar reasons.

The willingness of the general population to provide interviews over the telephone has fallen sharply since the early 2000s, with single digit response rates to Random Digit Dialling (RDD) surveys now the norm (Lavrakas et al 2017). This has mostly been driven by the steep decline in the number of fixed landline telephones and the commensurate rise in

‘mobile-only’ households over the past twenty years but it also seems to derive from a heightened general unwillingness amongst members of the public to complete interviews over the telephone.

Not only has the shift from fixed landline to mobile phones in the general population contributed to the decline in telephone response rates, as mobile users are less willing to respond to surveys, it has also posed new challenges for sampling and weighting. This is because dual frame (a mix of landline and mobile phone numbers) samples are more difficult to design and implement and require complex weighting adjustments for valid population inference. While the shift from landline to mobile phones has mostly been seen as representing a higher risk of biased estimates, it has also increased the cost of telephone surveys. This is because of the low and declining ‘strike rate’ (the number of calls made per achieved interview) for dual frame RDD samples.

In short, while telephone interviewing continues to play an integral role in survey research as an alternative mode of completion for existing respondents, it is not a viable alternative to face-to-face interviewing for sample recruitment. When a random probability survey needs to move away from in-person interviewing, online self-completion is increasingly the only viable choice.

A final factor currently pulling surveys to online self-completion is that this transition seems inevitable for most surveys at some point in the coming years anyway. Given the likely continuation and exacerbation of the problems hampering conventional modes of surveying, there is a strong case that transitioning from conventional to online modes should be implemented sooner rather than later. Another way of considering this is that, while moving surveys online will reduce *backward* comparability, it has the offsetting benefit of improving comparability with surveys that will be carried out in the *future*.

The design of the new survey – the Great British Gambling Survey (GBGS)

The process for the redesign of the Commission’s gambling survey commenced with a consultation with key stakeholder groups in December 2020. The key outcome of the consultation was the decision to assess the suitability of a standalone push-to-web design and to commission a pilot survey as the first step in this process. The contract for the pilot was awarded to NatCen Social Research in collaboration with the University of Glasgow and Bryson Purdon Social Research.

The design of the pilot followed a standard approach for the implementation of push-to-web surveys in the UK. A stratified random sample of 3775 addresses was drawn from PAF, with

sampled addresses sent an invitation letter asking up to 2 adults aged 16 or above to take part by completing the online survey with the link and unique identifiers in the letter. A £10 voucher was offered for completing the questionnaire. Three reminders were sent to nonresponding households, with the second reminder containing a paper version of the questionnaire. Fieldwork for the pilot was conducted in January and February 2022.

The pilot survey achieved 1078 responses, representing a response rate of 21%, of which 57% were online completions and 43% paper. This response rate is comparable to other push-to-web surveys conducted in the UK at this time. Analyses carried out by NatCen and partners found that inclusion of paper questionnaires not only increased the response rate but adjusted estimates of gambling behaviour downward, as would be expected (Ashford et al. 2022).

In terms of substantive findings, the push-to-web pilot found considerably higher rates of gambling and gambling harm when compared to the most recent health survey data. For example, the pilot found 63% of the public had gambled in the previous 12 months, compared to 54% in the 2018 Health Survey for England. Estimates of gambling harm were even more discrepant, with the pilot finding prevalence of problem, moderate risk and low risk gambling three times higher than the 2018 HSE.

The differences were somewhat lower but still substantial using a trend adjusted estimate that accounted for an apparent small decline in gambling measured in the CATI survey over the intervening years. Because the estimates of gambling prevalence and harm in the BGPS and health surveys had been broadly stable since 2007, the substantial increase observed in the pilot would appear to have arisen primarily as a result of methodological differences between the surveys. This was in line with the conclusions of Sturgis and Kuha (2022) who found consistently higher gambling prevalence and harm estimates in both probability and non-probability online samples.

Based on the results of the pilot survey, the Commission embarked on a programme of additional research to determine the optimal approaches to within household selection and the measurement of gambling behaviour. For within household selection, this involved an experimental comparison between the 2-person approach used in the pilot and inviting up to a maximum of 4 adults. Measurement of gambling activities involved comparison of binary and 4-point response scales and updating the list of activities to reflect recent changes in the types of gambling people do and experimental comparisons of how the list of activities is presented to respondents. This programme of work also involved testing (though not experimentally) the use of a QR code in the invitation letter to facilitate respondent access to the online questionnaire.

None of the experimental comparisons produced very strong or decisive differences but were sufficient to provide an evidential platform for determining the third and final design of the experimental stage. This would serve as a full test of the new push-to-web design before the main stage survey was launched in July 2023. Within household selection for the phase 3 design was up to 2 adults aged 18 or over, with the household members who have the nearest birthday asked to complete the survey in households containing more than 2 adults. The updated list of gambling activities was presented to respondents in the form of a single long list and QR codes were included in the invitation letter. In all other respects the survey had the same design as the 2022 pilot described earlier.

Fieldwork for this 'dress rehearsal' survey took place during April and May 2023, achieving a response rate of 17% and a sample size of 3,774. It found significantly higher rates of moderate risk and problem gambling on the PGSI compared to the 2022 pilot survey. This may be due to an increase in problem gambling in the population, but it might also have arisen as a result of the updated list of gambling activities used to filter respondents to the PGSI.

Conclusions and recommendations

My assessment of the development of the Gambling Survey of Great Britain (GSGB) is that it has been exemplary in all respects. Given the very high cost and declining response rates of in-person interview surveys, it was not feasible to continue with this sort of design into the future. This was true even before the Covid-19 pandemic hit but its effects on the general viability of in-home interviewing have made mode-choice even more stark. For different though equally compelling reasons, telephone interviewing is no longer a realistic alternative for obtaining cost-effective and accurate population estimates in Great Britain. The move to self-completion was therefore, in my judgement, the correct decision.

In making this transition the Gambling Commission has consulted widely with a broad range of stakeholders and followed industry standards of best practice in developing a mixed-mode push-to-web design that will yield high quality estimates of gambling prevalence in Great Britain on a quarterly and annual basis in the years ahead. The new design has been based on a carefully planned programme of methodological research and development to ensure key design choices are evidence-based.

The shift to push-to-web will bring a number of important benefits. Prime amongst them will be the increased frequency of measurement afforded by the new design which will enable better detection and understanding of trends in gambling behaviour.

The push-to-web/paper design also yields a considerably larger sample size (approximately 20,000 interviews annually) compared to a face-to-face design but without increasing overall costs. This will enable more precise estimates to be produced for population sub-groups and for detecting change within and between groups over time. This is a key evidence need for policy makers which has, up to now, not been satisfactorily met.

There are some issues that will require further consideration as the new design is implemented. Chief among them is the question of why the estimates of gambling prevalence and harm are so much higher in the push-to-web design than in the face-to-face interview surveys up to 2018. This has already been the subject of two investigations. Sturgis and Kuha (2022) placed most emphasis on the possibility of nonresponse bias in the push-to-web design inflating estimates of prevalence and harm, while Ashford et al (2022) came down more on the side of social desirability bias in the interviewer-administered surveys pushing the estimates downward from their true value. However, neither study was able to come to a definitive conclusion about the relative magnitudes of these errors nor, as a consequence, which estimates are closer to the truth.

One possibility, considered in the pilot report (Ashford, et al. 2022) is that response propensity will be higher amongst gamblers when gambling is mentioned as the focus of the survey in the invitation letter. This is because we know that people are more likely to take part in a survey if the topic is personally salient to them. This would help to explain why a survey which is explicitly about gambling obtains a higher response rate amongst gamblers than a survey that is generically about ‘health’. However, we might question whether this would apply to problem gamblers, who may wish to avoid answering questions about their gambling as it may cause them emotional distress. Moreover, the 2010 BGPS was explicitly about gambling and also obtained similar estimates to the 2018 HSE. Understanding the direction of this relationship is crucial because this determines whether nonresponse is a compounding or an offsetting error with respect to social desirability.

Recommendation: the Commission should conduct a survey experiment to better understand the relationship between survey topic and the propensity of gamblers to respond to survey invitations.

The Ashord et al pilot survey report finds that, at the same level of gambling, respondents are less likely to report gambling harm in the HSE compared to the pilot. It also found that HSE respondents reported lower PGSI scores when another household member was present during the interview. Both findings point to social desirability bias in the HSE as the reason for lower problem gambling estimates in this survey. However, these observational analyses rely on assumptions that are difficult to verify and are sensitive to which control

variables are included in the models. A better approach to identifying the direction and size of a measurement bias would be to randomly assign respondents to online self-completion or telephone interview, as was recently done to evaluate mode effects on the Crime Survey for England and Wales.

Recommendation: the Gambling Commission should undertake additional research to better understand the role of socially desirable responding as the driver of the difference in gambling estimates between in-person and self-completion surveys.

A key piece of evidence that would enable light to be shed on this important question is a face-to-face interview survey run alongside the push-to-web design. This is unlikely to be affordable as a standalone data collection exercise but could be included as part of the Health Survey for England in the future.

Recommendation: the Gambling Commission should endeavour to include a subset of questions on gambling prevalence and harm on a future sweep of the Health Survey for England in order to benchmark the estimates of the GSGB.

The stage 3 experimental survey found significantly higher PGSI scores than the 2022 pilot. This might have been a result of the use of an updated list of gambling activities on the 2023 survey but it might equally have been due to an increase in gambling harm in the population. In order to assess the impact of the updated gambling activity list, an experimental design is necessary.

Recommendation: the Gambling Commission should undertake a randomised experiment to evaluate the effect of the updated list of gambling activities on estimates of gambling prevalence and harm.

An on-going difficulty for push-to-web surveys is the implementation of within household respondent selection. The current approach of asking up to 2 respondents with the nearest birthdays to complete the survey is industry standard but nonetheless less than ideal. There is emerging evidence that appending PAF to external databases with information about the number of people in households can be effective in tailoring the number of invitations across households. This is just one example of how this issue might be mitigated and the Commission should keep abreast of developments in this area.

Recommendation: the Gambling Commission should continue to monitor best practice developments in the area of within household selection of adults in push-to-web surveys.

The addition of a paper option for questionnaire completion means that the survey does not exclude the offline population and those who find online survey completion challenging. As this sub-group has quite distinct demographic characteristics and patterns of gambling behaviour, their inclusion is essential. However, the inability to efficiently route respondents through a paper questionnaire means that it does not contain the full set of questions on the online version. Some of the questions reported on in the GSGB will therefore exclude the offline population as well as those who choose not to complete the survey online which may lead to biases that are not currently well understood.

Recommendation: the Gambling Commission should take steps to assess the likely extent of bias in the subset of questions administered to online respondents only.

Lastly, any survey that uses PAF as its sampling frame will have under-coverage of groups that do not live in private residences. For most variables of interest, the small size of this group renders this generally unproblematic but for gambling it is possible that incidence is considerably higher in the excluded groups.

Recommendation: The Gambling Commission should carry out research on the prevalence of gambling and gambling harm in groups that are excluded from the GSGB because they are not included on the sampling frame.

References

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From: [redacted]
To: Sturgis,P
Subject: RE: Report
Date: 16 January 2024 16:37:00
Attachments: image001.png

Thanks Patrick. Will review and get back to you.

Kind Regards

[redacted]

From: Sturgis,P <[redacted]@lse.ac.uk>
Sent: Monday, January 15, 2024 4:05 PM
To: [redacted] <[redacted]@gamblingcommission.gov.uk>
Subject: Report

CAUTION: This email is from an external source - be careful of attachments and links

Hello [redacted]

Please find attached my draft report. If you let me have any questions/comments/matters of accuracy and I will amend in time for your publication of wave 1 data in February. I also attach a short note on the analysis of the effect of having other people present during the interview in the HSE.

All the best,

Patrick

Patrick Sturgis
Professor of Quantitative Social Science and Head of Department
Department of Methodology
The London School of Economics and Political Science
Connaught House, Aldwych, London WC2A2AE
[redacted]
Twitter: [redacted]
http://www.lse.ac.uk/Methodology

From: Sturgis,P
To: [redacted]
Cc: [redacted]
Subject: Re: Report
Date: 24 January 2024 16:18:47

Hi [redacted]

Thanks for these comments, I will get to amending the report and let you know if I have any questions. I am glad to hear you are pleased with it and I'd be happy to meet to discuss the recommendations. [redacted] (I am in the morning) but that may change by the end of today as I am waiting to hear back from someone. I will let you know if that happens, otherwise I could do most days next week.

Best wishes,

Patrick

> On 24 Jan 2024, at 10:50, [redacted] <[redacted]@gamblingcommission.gov.uk> wrote:
>
> Hi Patrick
>
> Thanks again for the report, we are really pleased with your conclusions regarding the move to push to web and the process we have followed.
>
> We've added a few comments on the report to clarify a couple of things, and would also really like the opportunity to talk through the finding and the recommendations with you. One of the things we'd be keen to understand is which recommendations you would prioritise as we may face budget/time constraints which limit us from undertaking all of the recommendations, or at least undertaking them straight away. We'd also be keen to understand if you have recommendations/views about how we should approach the first publication of this data, especially regarding the PGSI and harms data in July.
>
> Do you have any time on Friday afternoon for a call? I know you said you would be busy teaching now that term has started so if there is a better time for you, just let me know.
>
> Would also be good to chat through timings and approach to publication when we meet.
>
> Finally and something I should have mentioned before, the Gambling Commission is hosting its 'Better Evidence, Better Outcomes' Conference on 6th March this year in London. The idea is to bring industry, academics, 3rd sector all together to discuss and share learnings on topics from our Evidence Gaps and Priorities. We've got a variety of panels, workshops, breakout rooms taking place throughout the day, including one on GSGB. If you'd be interested in attending you can sign up here

Registration: Gambling Commission 2024 Spring Conference - Better Evidence, Better Outcomes (office.com)

Thanks

[redacted]

From: Sturgis,P <[redacted]@lse.ac.uk>
Sent: Monday, January 15, 2024 4:05 PM
To: [redacted] <[redacted]@gamblingcommission.gov.uk>
Subject: Report

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Assessment of the Gambling Survey for Great Britain (GSGB)

Professor Patrick Sturgis, London School of Economics and Political Science

Background

The core objective of the Gambling Commission is to safeguard consumers of gambling services and the wider public by monitoring and regulating gambling in a way that makes it both safe and fair. As part of this remit, under section 26 of the 2005 Gambling Act, the Commission has a duty to collect and disseminate evidence about the extent and nature of the gambling behaviour of the general public in Great Britain. It largely, though not entirely, fulfils this remit through the periodic collection of general population surveys which ask adult respondents to report on their frequency of gambling, the types of gambling they participate in, and the harms they experience from it.

This is a challenging task. Gambling behaviour and its associated psychological impacts on individuals who gamble as well as their friends and families can only feasibly be collected through error-prone self-reports. Given the widespread negative social norms around gambling, particularly harmful gambling, obtaining representative samples and accurate response data is at the more difficult end of what survey researchers seek to measure in general populations.

Historically, the Gambling Commission has employed the longstanding 'gold standard' methodology of random sampling and face-to-face interviewing (with respondent self-completion for sensitive questions) for collecting this data. The first such survey carried out in Britain was the 1999 British Gambling Prevalence Survey (BGPS), though this preceded the existence of the Commission and was funded by the gambling charity GamCare. The 1999 BGPS used a multi-stage, stratified sample design with postcode sectors randomly sampled from the Postcode Address File (PAF). Addresses, then households and individuals, were sampled randomly and sequentially within these primary sampling units (PSUs). This first sweep of the BGPS achieved a response rate of 65%, which was quite typical for this type of design at that time, yielding an achieved sample size of 7,680 individuals.

Subsequent BGP surveys, now funded by the Gambling Commission and using the same sample design, followed in 2007 and 2010. While the sample sizes of these later surveys remained at the same approximate level (9,000 and 7,756, respectively), the response rates were considerably lower, at 47%. This is still high by contemporary standards but the decline compared to earlier years would naturally raise concerns about the accuracy of the survey's population estimates.

Although the cost of these surveys is not publicly available information, it is safe to assume that, like other face-to-face interview surveys during this period, they were rising by considerably more than inflation from one year to the next. And this was at a time of increasing pressure on survey research budgets, falling as it did at the outset of the coalition government's programme of budgetary austerity.

Following the 2010 BGPS, the costs of delivering a sample of this design had become prohibitively expensive in this context and the Commission looked for other ways of fulfilling its evidential remit in a more cost-effective manner. It ultimately settled on an approach which involved running question modules within the Health Surveys for England, Wales, and Scotland on a periodic basis (in England, gambling surveys were conducted in 2012, 2016 and 2018). Great Britain estimates were produced by combining the data across these national surveys, though this was a somewhat complicated process given differences in methodology and timing of the surveys across nations.

These national health surveys use the same basic sample design and data collection mode as the BGPS, so the time-series estimates were, in this respect, comparable. In order to obtain more frequent estimates for key variables of interest, the Health surveys were supplemented with a Computer Assisted Telephone Interview (CATI) survey, with results published on a quarterly and annual basis. However, given the differences in sample design, mode of administration, and question content, making direct comparisons between the CATI and health survey estimates required strong assumptions. Additionally, the Gambling Commission did not have a satisfactory level of control over the timing of the inclusion of gambling modules within the health surveys, nor of the volume and content of the questions that could be included.

For these reasons, in 2020, the Commission initiated a consultation on gambling survey research, with the intention of using the findings to transition to a bespoke survey design that would deliver timely and high-quality estimates of gambling participation, prevalence, and harm. Before turning to an assessment of the outcome of that consultation, I first consider how the development of the new survey design sits within the broader landscape of survey research over the past fifteen years or so.

The Changing Survey Landscape

The development of the methodological infrastructure for measuring gambling behaviour in Great Britain would, in many respects, serve as a useful case study of the changing pattern of survey research more generally over the past fifteen to twenty years. As response rates

continued to decline and survey costs increased, survey commissioners sought new approaches to obtaining cost-effective, representative, high-quality survey data for general populations. While this led to a multiplicity of new methodological approaches, the single biggest and most important development in the 21st Century survey landscape was the widespread transition from interviewer administration to online self-completion (Callegaro et al. 2014).

Online self-completion provides substantial cost savings compared to interviewer administered modes. For example, the American Community Survey estimated a cost of $10 per online completion compared to $192 for a face-to-face interview (Griffin, 2011). While the unit cost of an online self-completion is lower than interviewer administration, the marginal cost of each additional interview is even lower, meaning that sample sizes can be increased by large amounts for a comparatively modest additional outlay. This means it is possible to conduct more granular analyses for a fixed cost, producing robust estimates for small population sub-groups.

As well as the key benefit of cost efficiency, online self-completion offers other attractive features, such as greater flexibility over when respondents complete the questionnaire and the ability to use audio and visual capabilities or 'passive' data collection using online digital devices (Lessof and Sturgis 2018). For example, researchers are now starting to capture geographical mobility and online digital behaviour passively using apps and 'data donation', opening up exciting new possibilities for the types and volume of data that can be collected in surveys (Bosch and Revilla 2022).

Online self-completion, like all self-completion methods, also has desirable properties when measuring socially undesirable attitudes and behaviours because respondents are less willing to provide accurate responses to questions on such topics in the presence of an interviewer (Tourangeau and Smith 1996). This is clearly of high relevance to a survey of gambling behaviour, where there are good grounds to believe that the presence of an interviewer induces a downward bias on estimates of the prevalence of gambling harm (Sturgis and Kuha 2022).

The main barrier to the uptake of online self-completion designs has been the lower response rates they have tended to achieve compared to face-to-face interview designs. Low response rates increase the risk of biased estimates where the propensity to respond to the survey is correlated with the variable(s) of interest. However, this concern has diminished somewhat in recent years for two main reasons. First, push-to-web designs have started to achieve higher response rates while the reverse has been the case for in-person interview surveys, as technological and societal change has tended to favour the former type

of design over the latter. Second, in recent years survey methodologists have consistently found that the correlation between response rate and nonresponse bias is considerably weaker than has conventionally been assumed (Groves and Peytcheva 2008; Sturgis et al. 2017).

Most of the early online surveys carried out during the 2000s used opt-in (non-probability) sampling, which served as a barrier to the use of the online mode for official statistics and other high quality survey vehicles. A corresponding growth in online probability surveys was hindered by high rates of 'off-liners' in the general population, slow internet connections, and a lack of suitable sampling frames of the online population. However, as the size of the offline population has continued to decline, advances in address-based sampling, improved connection speeds and device sophistication have facilitated the growth of online probability surveys (Cornesse et al. 2020) and these are now increasingly common, both in the UK and overseas.

Survey commissioners who would previously not have considered a web survey due to concerns over sample and data quality are, therefore, now increasingly making the transition to the online self-completion mode of administration. Many UK surveys have already made, or will soon be making, this change including but not limited to the British Social Attitudes survey, the Labour Force survey, the European Social Survey, the National Survey of Sexual Attitudes and Lifestyles, the Participation Survey (formerly Taking Part), the British Election Survey, and Understanding Society.

This shift from in-person to online self-completion was already well underway in the early 2010s but was accelerated significantly during the Covid-19 pandemic, when in-home interviewing was brought to a sudden halt in March 2020. The pandemic not only forced the pace of technological change, it also increased the facility of the general population with online digital devices and accelerated the expectation that transactions and interactions be accomplished online rather than through in-person interaction.

Anecdotally at least, the pandemic also seems to have had a negative impact on people's willingness to invite survey interviewers into their homes, with post-pandemic response rates notably lower in the small number of surveys that have reverted to in-person interviews. The difficulty of maintaining interviewer field forces during the pandemic and the subsequent shortages experienced in the UK labour market have also been factors militating against a post-pandemic return to face-to-face interviewing.

Online probability survey designs currently fall under two broad methodological approaches in the UK. The first is a stand-alone 'push-to-web' method in which respondents are randomly sampled from an address-based frame (PAF) and invited through the mail to

complete a single survey online for a small monetary incentive. The second is an online probability panel, where respondents are recruited to become members of a 'standing panel' who receive regular invitations to complete surveys, again for small monetary incentives. The mode of recruitment for probability panels has been through both face-to-face interview, or mail push-to-web, though the latter is increasingly becoming the norm for the reasons noted above regarding the cost and limitations of in-person interviewing.

In choosing between a standalone push-to-web and an online probability panel, the main considerations will be response rate, sample size, data quality, and cost. While costs will, all things equal, generally be lower when using a panel, standalone surveys will achieve a somewhat higher response rate than can be obtained from a panel due to the attrition that occurs after the recruitment survey in the latter design. The sample size available through a panel will also have a lower maximum, so if a large sample is required a standalone survey is likely to be the best option. There are also potential data quality issues that arise through panel membership, notably the possibility of 'practice effects' or 'panel conditioning', where respondents' answers are affected by their participation in previous surveys (Sturgis, Allum, and Brunton-Smith 2009).

Both push-to-web and panel designs must deal with the issue of the minority of the population who are not able (or choose not) to have access to the internet. Studies have shown that, although this group is small, it is demographically, behaviourally, and attitudinally distinct, such that their exclusion can result in biased estimates (Cornesse et al. 2022). One approach here is to provide internet access and a mobile device to enable 'offliners' to complete surveys, though this is only practical for probability panels and has two problematic limitations. First, a large minority of the offliner group have *chosen* not to be online and so offering them online access is not a solution. Second, offering online access is likely to change the characteristics of an individual who would otherwise be offline and so will potentially produce biased estimates, for this sub-group at least.

Offliners can also be included in online probability surveys via telephone interview, or a paper questionnaire and both approaches are currently used in the UK context. Telephone interviewing has the benefit of enabling complex routing and integration of information from previous answers, although there is a substantial risk of measurement mode differences negatively affecting comparability with online response data. Paper questionnaires have the inverse properties of greater comparability in terms of measurement but not allowing routing and previous answer integration. Paper questionnaires generally need to be shorter than online and telephone interviews in order to achieve comparable unit and item response

rates. This means surveys sometimes include some questions that are asked in the online part of the survey only.

Another difficult issue that push-to-web sampling must grapple with is the selection of respondents within households where the design seeks to select a single individual, as is common for in-person interview surveys. This is done by the interviewer in face-to-face surveys. Existing research has shown that it is difficult to get respondents to implement random selection procedures successfully (Williams, 2016). An alternative approach to within household selection of a single adult is to request interviews with all eligible household members, thereby removing (or reducing) the potential for selection bias at this stage, albeit at the expense of introducing the additional potential for nonresponse amongst other household members. Some push-to-web surveys ask for interviews with all adults in a household, up to a maximum of four as this covers the vast majority of households in the UK. Although taking multiple adults at each address can increase sampling variance due to within household dependencies, this is usually compensated for by the gain in efficiency from reduced variance in design weights compared to a single adult design.

A disadvantage of allowing up to four interviews per household is that it creates an incentive for smaller households to fabricate interviews when there is a monetary incentive for each completion. A compromise design is to allow up to two interviews per household. Because approximately 85% of UK households contain fewer than three adults, in only a minority of households do the residents have any discretion over who completes the survey in this design. There is also less incentive for households to fabricate interviews when the maximum number of fake interviews per household is one. A study by Kantar Public (now Verian) found there was little difference on survey outcomes between these different approaches to respondent selection (Williams 2019).

The growing difficulty of implementing conventional survey modes has also served to sharpen the imperative to transition surveys online. Telephone interviewing – the main historical alternative to face-to-face interviews - is no longer able to provide sufficient cost savings or sample quality to make it a viable option. Although never as widely used in the UK as in other parts of the world, the trend toward a much-reduced volume of telephone interviewing that has been documented in the US (Olson et al. 2021) is also evident in the UK, and for broadly similar reasons.

The willingness of the general population to provide interviews over the telephone has fallen sharply since the early 2000s, with single digit response rates to Random Digit Dialling (RDD) surveys now the norm (Lavrakas et al 2017). This has mostly been driven by the steep decline in the number of fixed landline telephones and the commensurate rise in

‘mobile-only’ households over the past twenty years but it also seems to derive from a heightened general unwillingness amongst members of the public to complete interviews over the telephone.

Not only has the shift from fixed landline to mobile phones in the general population contributed to the decline in telephone response rates, as mobile users are less willing to respond to surveys, it has also posed new challenges for sampling and weighting. This is because dual frame (a mix of landline and mobile phone numbers) samples are more difficult to design and implement and require complex weighting adjustments for valid population inference. While the shift from landline to mobile phones has mostly been seen as representing a higher risk of biased estimates, it has also increased the cost of telephone surveys. This is because of the low and declining ‘strike rate’ (the number of calls made per achieved interview) for dual frame RDD samples.

In short, while telephone interviewing continues to play an integral role in survey research as an alternative mode of completion for existing respondents, it is not a viable alternative to face-to-face interviewing for sample recruitment. When a random probability survey needs to move away from in-person interviewing, online self-completion is increasingly the only viable choice.

A final factor currently pulling surveys to online self-completion is that this transition seems inevitable for most surveys at some point in the coming years anyway. Given the likely continuation and exacerbation of the problems hampering conventional modes of surveying, there is a strong case that transitioning from conventional to online modes should be implemented sooner rather than later. Another way of considering this is that, while moving surveys online will reduce *backward* comparability, it has the offsetting benefit of improving comparability with surveys that will be carried out in the *future*.

The design of the new survey – the Gambling Survey for Great Britain (GSGB)

The process for the redesign of the Commission’s gambling survey commenced with a consultation with key stakeholder groups in December 2020. The key outcome of the consultation was the decision to assess the suitability of a standalone push-to-web design and to commission a pilot survey as the first step in this process. The contract for the pilot was awarded to NatCen Social Research in collaboration with the University of Glasgow and Bryson Purdon Social Research.

The design of the pilot followed a standard approach for the implementation of push-to-web surveys in the UK. A stratified random sample of 3,775 addresses was drawn from the PAF,

with sampled addresses sent an invitation letter asking up to 2 adults aged 16 or above to take part by completing the online survey with the link and unique identifiers in the letter. A £10 voucher was offered for completing the questionnaire. Three reminders were sent to nonresponding households, with the second reminder containing a paper version of the questionnaire. Fieldwork for the pilot was conducted in January and February 2022.

The pilot survey achieved 1,078 responses, representing a response rate of 21%, of which 57% were online completions and 43% paper. This response rate is comparable to other push-to-web surveys conducted in the UK at this time. Analyses carried out by NatCen and partners found that inclusion of paper questionnaires not only increased the response rate, but adjusted estimates of gambling behaviour downward, as would be expected (Ashford et al. 2022).

In terms of substantive findings, the push-to-web pilot found considerably higher rates of gambling and gambling harm when compared to the most recent health survey data. For example, the pilot found 63% of the public had gambled in the previous 12 months, compared to 54% in the 2018 Health Survey for England (HSE). Estimates of gambling harm were even more discrepant, with the pilot finding prevalence of problem, moderate risk and low risk gambling three times higher than the 2018 HSE.

The differences were somewhat lower but still substantial using a trend adjusted estimate that accounted for an apparent small decline in gambling measured in the CATI survey over the intervening years. Because the estimates of gambling prevalence and harm in the BGPS and health surveys had been broadly stable since 2007, the substantial increase observed in the pilot would appear to have arisen primarily as a result of methodological differences between the surveys. This was in line with the conclusions of Sturgis and Kuha (2022) who found consistently higher gambling prevalence and harm estimates in both probability and non-probability online samples.

Based on the results of the pilot survey, the Commission embarked on a programme of additional research to determine the optimal approaches to within household selection and the measurement of gambling behaviour. For within household selection, this involved an experimental comparison between the 2-person approach used in the pilot and inviting up to a maximum of 4 adults. Measurement of gambling activities involved comparison of binary and 4-point response scales and updating the list of activities to reflect recent changes in the types of gambling people do and experimental comparisons of how the list of activities is presented to respondents. This programme of work also involved testing (though not experimentally) the use of a QR code in the invitation letter to facilitate respondent access to the online questionnaire.

None of the experimental comparisons produced very strong or decisive differences but were sufficient to provide an evidential platform for determining the third and final design of the experimental stage. This would serve as a full test of the new push-to-web design before the main stage survey was launched in July 2023. Within household selection for the phase 3 design was up to 2 adults aged 18 or over, with the household members who have the nearest birthday asked to complete the survey in households containing more than 2 adults. The updated list of gambling activities was presented to respondents in the form of a single long list and QR codes were included in the invitation letter. In all other respects the survey had the same design as the 2022 pilot described earlier.

Fieldwork for this 'dress rehearsal' survey took place during April and May 2023, achieving a response rate of 17% and a sample size of 3,774. It found significantly higher rates of moderate risk and problem gambling on the PGSI compared to the 2022 pilot survey. This may be due to an increase in problem gambling in the population, but it might also have arisen as a result of the updated list of gambling activities used to filter respondents to the PGSI.

Conclusions and recommendations

My assessment of the development of the Gambling Survey of Great Britain (GSGB) is that it has been exemplary in all respects. Given the very high cost and declining response rates of in-person interview surveys, it was not feasible to continue with this sort of design into the future. This was true even before the Covid-19 pandemic hit but its effects on the general viability of in-home interviewing have made mode-choice even more stark. For different though equally compelling reasons, telephone interviewing is no longer a realistic alternative for obtaining cost-effective and accurate population estimates in Great Britain. The move to self-completion was therefore, in my judgement, the correct decision.

In making this transition the Gambling Commission has consulted widely with a broad range of stakeholders and followed industry standards of best practice in developing a mixed-mode push-to-web design that will yield high quality estimates of gambling prevalence in Great Britain on a quarterly and annual basis in the years ahead. The new design has been based on a carefully planned programme of methodological research and development to ensure key design choices are evidence-based.

The shift to push-to-web will bring a number of important benefits. Prime amongst them will be the increased frequency of measurement afforded by the new design which will enable better detection and understanding of trends in gambling behaviour.

The push-to-web/paper design also yields a considerably larger sample size (approximately 20,000 interviews annually) compared to a face-to-face design but without increasing overall costs. This will enable more precise estimates to be produced for population sub-groups and for detecting change within and between groups over time. This is a key evidence need for policy makers which has, up to now, not been satisfactorily met.

There are some issues that will require further consideration as the new design is implemented. Chief among them is the question of why the estimates of gambling prevalence and harm are so much higher in the push-to-web design than in the face-to-face interview surveys up to 2018. This has already been the subject of two investigations. Sturgis and Kuha (2022) placed most emphasis on the possibility of nonresponse bias in the push-to-web design inflating estimates of prevalence and harm, while Ashford et al (2022) came down more on the side of social desirability bias in the interviewer-administered surveys pushing the estimates downward from their true value. However, neither study was able to come to a definitive conclusion about the relative magnitudes of these errors nor, as a consequence, which estimates are closer to the truth.

One possibility, considered in the pilot report (Ashford, et al. 2022) is that response propensity will be higher amongst gamblers when gambling is mentioned as the focus of the survey in the invitation letter. This is because we know that people are more likely to take part in a survey if the topic is personally salient to them. This would help to explain why a survey which is explicitly about gambling obtains a higher response rate amongst gamblers than a survey that is generically about ‘health’. However, we might question whether this would apply to problem gamblers, who may wish to avoid answering questions about their gambling as it may cause them emotional distress. Moreover, the 2010 BGPS was explicitly about gambling and also obtained similar estimates to the 2018 HSE. Understanding the direction of this relationship is crucial because this determines whether nonresponse is a compounding or an offsetting error with respect to social desirability.

Recommendation: the Commission should conduct a survey experiment to better understand the relationship between survey topic and the propensity of gamblers to respond to survey invitations.

The Ashord et al pilot survey report finds that, at the same level of gambling, respondents are less likely to report gambling harm in the HSE compared to the pilot. It also found that HSE respondents reported lower PGSI scores when another household member was present during the interview. Both findings point to social desirability bias in the HSE as the reason for lower problem gambling estimates in this survey. However, these observational analyses rely on assumptions that are difficult to verify and are sensitive to which control

variables are included in the models. A better approach to identifying the direction and size of a measurement bias would be to randomly assign respondents to online self-completion or telephone interview, as was recently done to evaluate mode effects on the Crime Survey for England and Wales.

Recommendation: the Gambling Commission should undertake additional research to better understand the role of socially desirable responding as the driver of the difference in gambling estimates between in-person and self-completion surveys.

A key piece of evidence that would enable light to be shed on this important question is a face-to-face interview survey run alongside the push-to-web design. This is unlikely to be affordable as a standalone data collection exercise but could be included as part of the Health Survey for England in the future.

Recommendation: the Gambling Commission should endeavour to include a subset of questions on gambling prevalence and harm on a future sweep of the Health Survey for England in order to benchmark the estimates of the GSGB.

The stage 3 experimental survey found significantly higher PGSI scores than the 2022 pilot. This might have been a result of the use of an updated list of gambling activities on the 2023 survey but it might equally have been due to an increase in gambling harm in the population. In order to assess the impact of the updated gambling activity list, an experimental design is necessary.

Recommendation: the Gambling Commission should undertake a randomised experiment to evaluate the effect of the updated list of gambling activities on estimates of gambling prevalence and harm.

An on-going difficulty for push-to-web surveys is the implementation of within household respondent selection. The current approach of asking up to 2 respondents with the nearest birthdays to complete the survey is industry standard but nonetheless less than ideal. There is emerging evidence that appending PAF to external databases with information about the number of people in households can be effective in tailoring the number of invitations across households. This is just one example of how this issue might be mitigated and the Commission should keep abreast of developments in this area.

Recommendation: the Gambling Commission should continue to monitor best practice developments in the area of within household selection of adults in push-to-web surveys.

The addition of a paper option for questionnaire completion means that the survey does not exclude the offline population and those who find online survey completion challenging. As this sub-group has quite distinct demographic characteristics and patterns of gambling behaviour, their inclusion is essential. However, the inability to efficiently route respondents through a paper questionnaire means that it does not contain the full set of questions on the online version. Some of the questions reported on in the GSGB will therefore exclude the offline population as well as those who choose not to complete the survey online which may lead to biases that are not currently well understood.

Recommendation: the Gambling Commission should take steps to assess the likely extent of bias in the subset of questions administered to online respondents only.

Lastly, any survey that uses PAF as its sampling frame will have under-coverage of groups that do not live in private residences. For most variables of interest, the small size of this group renders this generally unproblematic but for gambling it is possible that incidence is considerably higher in the excluded groups.

Recommendation: The Gambling Commission should carry out research on the prevalence of gambling and gambling harm in groups that are excluded from the GSGB because they are not included on the sampling frame.

References

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From: [redacted]
To: Sturgis,P; [redacted]
Subject: Catch up re: report

Microsoft Teams meeting

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From: Sturgis,P
To: [redacted]
Subject: Re: Report
Date: 25 January 2024 17:45:51
Attachments: PastedGraphic-1.png

CAUTION: This email is from an external source - be careful of attachments and links

Thanks, I have to interview someone 2-2.30 so may be 5 mins late if it over-runs. Best,

Patrick

On 25 Jan 2024, at 16:01, [redacted] <[redacted]@gamblingcommission.gov.uk> wrote:

Fab thanks, I've sent a meeting invite for 2.30pm

From: Sturgis,P <[redacted]@lse.ac.uk>
Sent: Thursday, January 25, 2024 11:17 AM
To: [redacted] <[redacted]@gamblingcommission.gov.uk>
Cc: [redacted] <[redacted]@gamblingcommission.gov.uk>; [redacted]@gamblingcommission.gov.uk>
Subject: Re: Report

CAUTION: This email is from an external source - be careful of attachments and links

Hi [redacted] I am now available 2-4 tomorrow. Best,

Patrick

From: Sturgis,P
To: [redacted]
Subject: Re: Report
Date: 29 January 2024 16:14:19

CAUTION: This email is from an external source - be careful of attachments and links

Ok, I will look into it a bit more just to check it is appropriate. It is open access with no need for people to register for anything or pay to access. Best,

Patrick

> On 29 Jan 2024, at 16:02, [redacted] <[redacted]@gamblingcommission.gov.uk> wrote:
>
> Hi Patrick
>
> That looks like it could work, I presume people could access the paper without having to sign up or pay to access it?
>
> It would be really helpful if it could be published in this way, then we'd write a news article on our website to coincide with publication and link to your report.
>
> We can talk about publication dates once we've got the report agreed if you are happy with this approach?
>
> Thanks
>
> [redacted]
>
> ---
>
> **From:** Sturgis,P [redacted]@lse.ac.uk>
> **Sent:** Monday, January 29, 2024 2:09 PM
> **To:** [redacted] <[redacted]@gamblingcommission.gov.uk>
> **Subject:** Re: Report
>
> **CAUTION:** This email is from an external source - be careful of attachments and links
>
> Hi [redacted] I don't have any objection to publishing the report under my own auspices, I'm just not sure where that would be. I don't think an LSE blog would be appropriate, or any of the LSE pages really. One option would be to publish it on my OSF page:
>
> https://osf.io/s4dcq/
>
> This is usually for hosting data and code for published papers but I suppose it could also be used for this purpose. It has the benefit of longevity i.e. it won't become a broken link in a few years, as would likely happen with anything published on LSE servers.
>
> Best,

Patrick

On 29 Jan 2024, at 12:38, [redacted] [redacted]@gamblingcommission.gov.uk> wrote:

Hi Patrick

In relation to the publication of the report, our digital team are quite stretched at the moment so I am just trying to secure some capacity for them to publish your report on our website in Feb. We are not allowed to publish pdf reports on our website though due to accessibility criteria so we'll have to transfer your report into html content. I know we briefly discussed whether there was an option for you to publish the report and just thought I would double check if this was an option at all? Would it be something that could be published on the LSE website under blogs or news and we could link to it from the GC website?

Thanks

[redacted]

From: Sturgis,P <[redacted]@lse.ac.uk>
Sent: Monday, January 29, 2024 12:12 PM
To: [redacted] <[redacted]@gamblingcommission.gov.uk>
Subject: Re: Report

CAUTION: This email is from an external source - be careful of attachments and links

Got it, thanks [redacted]

On 29 Jan 2024, at 11:50, [redacted] <[redacted]@gamblingcommission.gov.uk> wrote:

Hi Patrick

This was in relation to your advice about how the results we release in July should be interpreted by stakeholders.

We talked on Friday about how all surveys produce estimates, that we don't actually know which survey is producing the most robust estimates and whilst we think GSGB might be on the high side, the results are still very

useful in terms of the granularity they provide, the ability to track trends going forward and that really the focus should be less on the number itself but more on the patterns within the data and the trends going forward.

Does that make sense?

Thanks

[redacted]

From: Sturgis,P <[redacted]@lse.ac.uk>
Sent: Monday, January 29, 2024 11:26 AM
To: [redacted] [redacted]@gamblingcommission.gov.uk>
Subject: Re: Report

CAUTION: This email is from an external source - be careful of attachments and links

Hi [redacted] just making my way through the revisions to my report and I am not sure I understand one of your comments: Can we include anything related to the launch of the stats in July and how they should be used?

Could you clarify what you mean please?

Best,

Patrick

> On 25 Jan 2024, at 16:01, [redacted] <[redacted]@gamblingcommission.gov.uk> wrote:
>
> Fab thanks, I've sent a meeting invite for 2.30pm

From: Sturgis,P
To: [redacted]
Subject: Re: Report
Date: 31 January 2024 13:35:34

CAUTION: This email is from an external source - be careful of attachments and links

Have signed up.

> On 30 Jan 2024, at 13:12, [redacted] <[redacted]@gamblingcommission.gov.uk> wrote:
>
> Thanks Patrick, will read shortly.
>
> I've been told by our Comms team that our conference is nearly at capacity so if you did want to attend (and we'd be very glad if you are able to come) then I'd encourage you to register sooner rather than later. The link is Registration: Gambling Commission 2024 Spring Conference - Better Evidence, Better Outcomes (office.com)
>
> ---
>
> **From:** Sturgis,P [redacted]@lse.ac.uk>
> **Sent:** Monday, January 29, 2024 6:42 PM
> **To:** [redacted] <[redacted]@gamblingcommission.gov.uk>
> **Subject:** Re: Report
>
> **CAUTION:** This email is from an external source - be careful of attachments and links
>
> Hi [redacted] here is the revised report. I think I have addressed all the issues you raised but please let me know if not. Best,
>
> Patrick
>
> > On 29 Jan 2024, at 16:02, [redacted] <[redacted]@gamblingcommission.gov.uk> wrote:
> >
> > Hi Patrick
> >
> > That looks like it could work, I presume people could access the paper without having to sign up or pay to access it?
> >
> > It would be really helpful if it could be published in this way, then we'd write a news article on our website to coincide with publication and link to your report.
> >
> > We can talk about publication dates once we've got the report agreed if you are happy with this approach?
> >
> > Thanks

From: Sturgis,P
To: [redacted]
Subject: Re: Report
Date: 05 February 2024 13:22:01
Attachments: Report_final_3FEB24.docx

CAUTION: This email is from an external source - be careful of attachments and links

Attached this time!

On 5 Feb 2024, at 13:15, Helen Bryce [redacted]@gamblingcommission.gov.uk> wrote:

I'm missing the attachment!

Brilliant, I'll just confirm on whether our comms team would prefer the 15th or the 19th. Thanks for sorting that with LSE.

From: Sturgis,P [redacted]@lse.ac.uk>
Sent: Monday, February 5, 2024 12:50 PM
To: [redacted] [redacted]@gamblingcommission.gov.uk>
Subject: Re: Report

CAUTION: This email is from an external source - be careful of attachments and links

Hi [redacted] amended version attached. I am happy for you to share it with NatCen ahead of publication. If you let me know when you would like it to become publicly available I can ask LSE Library to set that.

Best wishes,

Patrick

On 5 Feb 2024, at 12:35, [redacted]
<[redacted]@gamblingcommission.gov.uk> wrote:

Hi Patrick

Thanks for the email.

Whilst you are implementing the proposed edits, could you also update the bit relating to if there are more than two adults in the household and asking the person(s) whose birthday is next in the household to take part. This should actually be the person(s) who have had the most recent birthday in the household. Apologies, I hadn't picked up on this before.

Once we receive the final version, I would also like to share with the NatCen project team ahead of publication, is that OK with you?

Thanks

[redacted]

From: Sturgis,P [redacted]@lse.ac.uk>
Sent: Friday, February 2, 2024 6:12 PM
To: [redacted] <[redacted]@gamblingcommission.gov.uk>
Subject: Re: Report

CAUTION: This email is from an external source - be careful of attachments and links

Hi [redacted] I am happy with the proposed edits and will implement those. I did look into the OSF page and it is not really suitable, it is intended as a repository for code and data so that analyses in published papers can be accessed/replicated. I think the best option will be to use the LSE Online Research repository, I have checked this with the LSE library and they are happy to publish it in that way. I can ask them not to publish it until the 15th Feb but provide me with a link before then that I can send to you. Best,

Patrick

> On 2 Feb 2024, at 15:32, [redacted] <[redacted]@gamblingcommission.gov.uk> wrote:
>
> Hi Patrick
>
> Thanks for the revised report, I have some very minor additional comments which I am hoping you'll be able to review? Once these have been actioned we'll be happy to sign the report off.
>
> In terms of publication, did you get any further with deciding whether your OSF page would be a suitable place for publishing the report?
>
> We'd like to get this report published before the first wave of GSGB results come out on the 29th Feb, our Comms team have suggested either the 15th or 19th Feb if either of these dates work for you? We want to co-ordinate the publication with a news article on our website.

Assessment of the Gambling Survey for Great Britain (GSGB)

Professor Patrick Sturgis, London School of Economics and Political Science

Background

The core objective of the Gambling Commission is to safeguard consumers of gambling services and the wider public by monitoring and regulating gambling in a way that makes it both safe and fair. As part of this remit, under section 26 of the 2005 Gambling Act, the Commission has a duty to collect and disseminate evidence about the extent and nature of the gambling behaviour of the general public in Great Britain. It largely, though not entirely, fulfils this remit through the periodic collection of general population surveys which ask adult respondents to report on their frequency of gambling, the types of gambling they participate in, and the social and psychological effects they experience from it.

This is a challenging task. Gambling behaviour and its associated psychological impacts on individuals who gamble as well as their friends and families can only feasibly be collected through error-prone self-reports. Given the widespread negative social norms around gambling, particularly harmful gambling, obtaining representative samples and accurate response data is at the more difficult end of what survey researchers seek to measure in general populations.

Historically, the Gambling Commission has employed the methodology of random sampling and face-to-face interviewing (with respondent self-completion for sensitive questions) for collecting this data. The first such survey carried out in Britain was the 1999 British Gambling Prevalence Survey (BGPS), though this preceded the existence of the Commission and was funded by the gambling charity GamCare. The 1999 BGPS used a multi-stage, stratified sample design with postcode sectors randomly sampled from the Postcode Address File (PAF). Addresses, then households and individuals, were sampled randomly and sequentially within these primary sampling units (PSUs). This first sweep of the BGPS achieved a response rate of 65%, which was quite typical for this type of design at that time, yielding an achieved sample size of 7,680 individuals.

Subsequent BGP surveys, now funded by the Gambling Commission and using the same sample design, followed in 2007 and 2010. While the sample sizes of these later surveys remained at the same approximate level (9,000 and 7,756, respectively), the response rates were considerably lower, at 47%. This is still high by contemporary standards but the decline compared to earlier years would naturally raise concerns about the accuracy of the survey's population estimates.

Although the cost of these surveys is not publicly available information, it is safe to assume that, like other face-to-face interview surveys during this period, they were rising by considerably more than inflation from one year to the next. And this was at a time of increasing pressure on survey research budgets, falling as it did at the outset of the coalition government's programme of budgetary austerity.

Following the 2010 BGPS, the costs of delivering a sample of this design had become prohibitively expensive in this context and the Commission looked for other ways of fulfilling its evidential remit in a more cost-effective manner. It ultimately settled on an approach which involved running question modules within the Health Surveys for England and Scotland on a periodic basis (in England, gambling surveys were conducted in 2012, 2015, 2016, 2018, and 2021), while data in Wales was collected via a face-to-face omnibus survey. Great Britain estimates were produced by combining the data across these national surveys, though this was a somewhat complicated process given differences in methodology and timing of the surveys across nations.

The national health surveys in England and Scotland use the same basic methodology as the BGPS, so the time-series estimates were, in this respect, comparable, though less so for Wales. In order to obtain more frequent estimates for key variables of interest, the Health surveys were supplemented with a Computer Assisted Telephone Interview (CATI) survey, with results published on a quarterly and annual basis. However, given the differences in sample design, mode of administration, and question content, making direct comparisons between the CATI and health survey estimates required strong assumptions. Additionally, the Gambling Commission did not have a satisfactory level of control over the timing of the inclusion of gambling modules within the health surveys, nor of the volume and content of the questions that could be included.

For these reasons, in 2020, the Commission initiated a consultation on gambling survey research, with the intention of using the findings to transition to a bespoke survey design that would deliver timely and high-quality estimates of gambling participation, prevalence, and harm. Before turning to an assessment of the outcome of that consultation, I first consider how the development of the new survey design sits within the broader landscape of survey research over the past fifteen years or so.

The Changing Survey Landscape

The development of the methodological infrastructure for measuring gambling behaviour in Great Britain would, in many respects, serve as a useful case study of the changing pattern

of survey research more generally over the past fifteen to twenty years. As response rates continued to decline and survey costs increased, survey commissioners sought new approaches to obtaining cost-effective, representative, high-quality survey data for general populations. While this led to a multiplicity of new methodological approaches, the single biggest and most important development in the 21st Century survey landscape was the widespread transition from interviewer administration to online self-completion (Callegaro et al. 2014).

Online self-completion provides substantial cost savings compared to interviewer administered modes. For example, the American Community Survey estimated a cost of $10 per online completion compared to $192 for a face-to-face interview (Griffin, 2011). While the unit cost of an online self-completion is lower than interviewer administration, the marginal cost of each additional interview is even lower, meaning that sample sizes can be increased by large amounts for a comparatively modest additional outlay. This means it is possible to conduct more granular analyses for a fixed cost, producing robust estimates for small population sub-groups.

As well as the key benefit of cost efficiency, online self-completion offers other attractive features, such as greater flexibility over when respondents complete the questionnaire and the ability to use audio and visual capabilities or 'passive' data collection using online digital devices (Lessof and Sturgis 2018). For example, researchers are now starting to capture geographical mobility and online digital behaviour passively using apps and 'data donation', opening up exciting new possibilities for the types and volume of data that can be collected in surveys (Bosch and Revilla 2022).

Online self-completion, like all self-completion methods, also has desirable properties when measuring socially undesirable attitudes and behaviours because respondents are less willing to provide accurate responses to questions on such topics in the presence of an interviewer (Tourangeau and Smith 1996). This is clearly of high relevance to a survey of gambling behaviour, where there are good grounds to believe that the presence of an interviewer induces a downward bias on estimates of the prevalence of gambling harm (Sturgis and Kuha 2022).

The main barrier to the uptake of online self-completion designs has been the lower response rates they have tended to achieve compared to face-to-face interview designs. Low response rates increase the risk of biased estimates where the propensity to respond to the survey is correlated with the variable(s) of interest. However, this concern has diminished somewhat in recent years for two main reasons. First, push-to-web designs have started to achieve higher response rates while the reverse has been the case for in-person

interview surveys, as technological and societal change has tended to favour the former type of design over the latter. Second, in recent years survey methodologists have consistently found that the correlation between response rate and nonresponse bias is considerably weaker than has conventionally been assumed (Groves and Peytcheva 2008; Sturgis et al. 2017).

Most of the early online surveys carried out during the 2000s used opt-in (non-probability) sampling, which served as a barrier to the use of the online mode for official statistics and other high quality survey vehicles. A corresponding growth in online probability surveys was hindered by high rates of 'off-liners' in the general population, slow internet connections, and a lack of suitable sampling frames of the online population. However, as the size of the offline population has continued to decline, advances in address-based sampling, improved connection speeds and device sophistication have facilitated the growth of online probability surveys (Cornesse et al. 2020) and these are now increasingly common, both in the UK and overseas.

Survey commissioners who would previously not have considered a web survey due to concerns over sample and data quality are, therefore, now increasingly making the transition to the online self-completion mode of administration. Many UK surveys have already made, or will soon be making, this change including but not limited to the British Social Attitudes survey, the Labour Force survey, the European Social Survey, the National Survey of Sexual Attitudes and Lifestyles, the Participation Survey (formerly Taking Part), the British Election Survey, and Understanding Society.

This shift from in-person to online self-completion was already well underway in the early 2010s but was accelerated significantly during the Covid-19 pandemic, when in-home interviewing was brought to a sudden halt in March 2020. The pandemic not only forced the pace of technological change, it also increased the facility of the general population with online digital devices and accelerated the expectation that transactions and interactions be accomplished online rather than through in-person interaction.

Anecdotally at least, the pandemic also seems to have had a negative impact on people's willingness to invite survey interviewers into their homes, with post-pandemic response rates notably lower in the small number of surveys that have reverted to in-person interviews. The difficulty of maintaining interviewer field forces during the pandemic and the subsequent shortages experienced in the UK labour market have also been factors militating against a post-pandemic return to face-to-face interviewing.

Online probability survey designs currently fall under two broad methodological approaches in the UK. The first is a stand-alone 'push-to-web' method in which respondents are

randomly sampled from an address-based frame (PAF) and invited through the mail to complete a single survey online for a small monetary incentive. The second is an online probability panel, where respondents are recruited to become members of a 'standing panel' who receive regular invitations to complete surveys, again for small monetary incentives. The mode of recruitment for probability panels has been through both face-to-face interview, or mail push-to-web, though the latter is increasingly becoming the norm for the reasons noted above regarding the cost and limitations of in-person interviewing.

In choosing between a standalone push-to-web and an online probability panel, the main considerations will be response rate, sample size, data quality, and cost. While costs will, all things equal, generally be lower when using a panel, standalone surveys will achieve a somewhat higher response rate than can be obtained from a panel due to the attrition that occurs after the recruitment survey in the latter design. The sample size available through a panel will also have a lower maximum, so if a large sample is required a standalone survey is likely to be the best option. There are also potential data quality issues that arise through panel membership, notably the possibility of 'practice effects' or 'panel conditioning', where respondents' answers are affected by their participation in previous surveys (Sturgis, Allum, and Brunton-Smith 2009).

Both push-to-web and panel designs must deal with the issue of the minority of the population who are not able (or choose not) to have access to the internet. Studies have shown that, although this group is small, it is demographically, behaviourally, and attitudinally distinct, such that their exclusion can result in biased estimates (Cornesse et al. 2022). One approach here is to provide internet access and a mobile device to enable 'offliners' to complete surveys, though this is only practical for probability panels and has two problematic limitations. First, a large minority of the offliner group have *chosen* not to be online and so offering them online access is not a solution. Second, offering online access is likely to change the characteristics of an individual who would otherwise be offline and so will potentially produce biased estimates, for this sub-group at least.

Offliners can also be included in online probability surveys via telephone interview, or a paper questionnaire and both approaches are currently used in the UK context. Telephone interviewing has the benefit of enabling complex routing and integration of information from previous answers, although there is a substantial risk of measurement mode differences negatively affecting comparability with online response data. Paper questionnaires have the inverse properties of greater comparability in terms of measurement but not allowing routing and previous answer integration. Paper questionnaires generally need to be shorter than online and telephone interviews in order to achieve comparable unit and item response

rates. This means surveys sometimes include some questions that are asked in the online part of the survey only.

Another difficult issue that push-to-web sampling must grapple with is the selection of respondents within households where the design seeks to select a single individual, as is common for in-person interview surveys. This is done by the interviewer in face-to-face surveys. Existing research has shown that it is difficult to get respondents to implement random selection procedures successfully (Williams, 2016). An alternative approach to within household selection of a single adult is to request interviews with all eligible household members, thereby removing (or reducing) the potential for selection bias at this stage, albeit at the expense of introducing the additional potential for nonresponse amongst other household members. Some push-to-web surveys ask for interviews with all adults in a household, up to a maximum of four as this covers the vast majority of households in the UK. Although taking multiple adults at each address can increase sampling variance due to within household dependencies, this is usually compensated for by the gain in efficiency from reduced variance in design weights compared to a single adult design.

A disadvantage of allowing up to four interviews per household is that it creates an incentive for smaller households to fabricate interviews when there is a monetary incentive for each completion. A compromise design is to allow up to two interviews per household. Because approximately 85% of UK households contain fewer than three adults, in only a minority of households do the residents have any discretion over who completes the survey in this design. There is also less incentive for households to fabricate interviews when the maximum number of fake interviews per household is one. A study by Kantar Public (now Verian) found there was little difference on survey outcomes between these different approaches to respondent selection (Williams 2019).

The growing difficulty of implementing conventional survey modes has also served to sharpen the imperative to transition surveys online. Telephone interviewing – the main historical alternative to face-to-face interviews - is no longer able to provide sufficient cost savings or sample quality to make it a viable option. Although never as widely used in the UK as in other parts of the world, the trend toward a much-reduced volume of telephone interviewing that has been documented in the US (Olson et al. 2021) is also evident in the UK, and for broadly similar reasons.

The willingness of the general population to provide interviews over the telephone has fallen sharply since the early 2000s, with single digit response rates to Random Digit Dialling (RDD) surveys now the norm (Lavrakas et al 2017). This has mostly been driven by the steep decline in the number of fixed landline telephones and the commensurate rise in

‘mobile-only’ households over the past twenty years but it also seems to derive from a heightened general unwillingness amongst members of the public to complete interviews over the telephone.

Not only has the shift from fixed landline to mobile phones in the general population contributed to the decline in telephone response rates, as mobile users are less willing to respond to surveys, it has also posed new challenges for sampling and weighting. This is because dual frame (a mix of landline and mobile phone numbers) samples are more difficult to design and implement and require complex weighting adjustments for valid population inference. While the shift from landline to mobile phones has mostly been seen as representing a higher risk of biased estimates, it has also increased the cost of telephone surveys. This is because of the low and declining ‘strike rate’ (the number of calls made per achieved interview) for dual frame RDD samples.

In short, while telephone interviewing continues to play an integral role in survey research as an alternative mode of completion for existing respondents, it is not a viable alternative to face-to-face interviewing for sample recruitment. When a random probability survey needs to move away from in-person interviewing, online self-completion is increasingly the only viable choice.

A final factor currently pulling surveys to online self-completion is that this transition seems inevitable for most surveys at some point in the coming years anyway. Given the likely continuation and exacerbation of the problems hampering conventional modes of surveying, there is a strong case that transitioning from conventional to online modes should be implemented sooner rather than later. Another way of considering this is that, while moving surveys online will reduce *backward* comparability, it has the offsetting benefit of improving comparability with surveys that will be carried out in the *future*.

The design of the new survey – the Gambling Survey for Great Britain (GSGB)

The process for the redesign of the Commission’s gambling survey commenced with a consultation with key stakeholder groups in December 2020. The key outcome of the consultation was the decision to assess the suitability of a standalone push-to-web design and to commission a pilot survey as the first step in this process. The contract for the pilot was awarded to NatCen Social Research in collaboration with the University of Glasgow and Bryson Purdon Social Research.

The design of the pilot followed a standard approach for the implementation of push-to-web surveys in the UK. A stratified random sample of 3,775 addresses was drawn from the PAF,

with sampled addresses sent an invitation letter asking up to 2 adults aged 16[1] or above to take part by completing the online survey with the link and unique identifiers in the letter. A £10 voucher was offered for completing the questionnaire. Three reminders were sent to nonresponding households, with the second reminder containing a paper version of the questionnaire. Fieldwork for the pilot was conducted in January and February 2022.

The pilot survey achieved 1,078 responses, representing a response rate of 21%, of which 57% were online completions and 43% paper. This response rate is comparable to other push-to-web surveys conducted in the UK at this time. Analyses carried out by NatCen and partners found that inclusion of paper questionnaires not only increased the response rate, but adjusted estimates of gambling behaviour downward, as would be expected (Ashford et al. 2022). The option of an offline completion mode therefore seems essential as a means of including parts of the population with quite different patterns and experiences of gambling, whose exclusion would likely bias key survey estimates.

In terms of substantive findings, the push-to-web pilot found considerably higher rates of gambling and gambling harm when compared to the most recent health survey data. For example, the pilot found 63% of the public had gambled in the previous 12 months, compared to 54% in the 2018 Health Survey for England (HSE). Estimates of the experience of problem gambling were even more discrepant, with the pilot finding prevalence of problem, moderate risk and low risk gambling three times higher than the 2018 HSE.

The differences were somewhat lower but still substantial using a trend adjusted estimate that accounted for an apparent small decline in gambling measured in the CATI survey over the intervening years. Because the estimates of problem gambling prevalence and in the BGPS and health surveys had been broadly stable since 2007, the substantial increase observed in the pilot would appear to have arisen primarily as a result of methodological differences between the surveys. This was in line with the conclusions of Sturgis and Kuha (2022) who found consistently higher gambling prevalence and harm estimates in both probability and non-probability online samples.

Based on the results of the pilot survey, the Commission embarked on a programme of additional research to determine the optimal approaches to within household selection and the measurement of gambling behaviour. For within household selection, this involved an experimental comparison between the 2-person approach used in the pilot and inviting up to a maximum of 4 adults. Measurement of gambling activities and harms involved comparison of binary and 4-point response scales and updating the list of activities to reflect recent

[1] The minimum age was subsequently raised to 18 for the experimental stages and the main-stage survey due to very low response rates amongst 16-17 year olds in the pilot.

changes in the types of gambling people do and experimental comparisons of how the list of activities is presented to respondents. This programme of work also involved testing (though not experimentally) the use of a QR code in the invitation letter to facilitate respondent access to the online questionnaire.

None of the experimental comparisons produced very strong or decisive differences but were sufficient to provide an evidential platform for determining the third and final design of the experimental stage. This would serve as a full test of the new push-to-web design before the main stage survey was launched in July 2023. Within household selection for the phase 3 design was up to 2 adults aged 18 or over, with the household members who have the most recent birthdays asked to complete the survey in households containing more than 2 adults. The updated list of gambling activities was presented to respondents in the form of a single long list and QR codes were included in the invitation letter. In all other respects the survey had the same design as the 2022 pilot described earlier, apart from the minimum age of respondents increasing from 16 to 18 and a somewhat longer questionnaire.

Fieldwork for this ‘dress rehearsal’ survey took place during April and May 2023, achieving a response rate of 17% and a sample size of 3,774. It found significantly higher rates of moderate risk and problem gambling on the PGSI compared to the 2022 pilot survey. This may be due to an increase in problem gambling in the population, but it might also have arisen as a result of the updated list of gambling activities used to filter respondents to the PGSI.

Conclusions and recommendations

My assessment of the development of the Gambling Survey of Great Britain (GSGB) is that it has been exemplary in all respects. Given the very high cost and declining response rates of in-person interview surveys, it was not feasible to continue with this sort of design into the future. This was true even before the Covid-19 pandemic hit but its effects on the general viability of in-home interviewing have made mode-choice even more stark. For different though equally compelling reasons, telephone interviewing is no longer a realistic alternative for obtaining cost-effective and accurate population estimates in Great Britain. The move to self-completion was therefore, in my judgement, the correct decision.

In making this transition the Gambling Commission has consulted widely with a broad range of stakeholders and followed industry standards of best practice in developing a mixed-mode push-to-web design that will yield high quality estimates of gambling prevalence in Great Britain on a quarterly and annual basis in the years ahead. The new design has been based

on a carefully planned programme of methodological research and development to ensure key design choices are evidence-based.

The shift to push-to-web will bring a number of important benefits. Prime amongst them will be the increased frequency of measurement afforded by the new design which will enable better detection and understanding of patterns and trends in gambling behaviour.

The push-to-web/paper design also yields a considerably larger sample size (approximately 20,000 interviews annually) compared to a face-to-face design. This will enable more precise estimates to be produced for population sub-groups and for detecting change within and between groups over time. This is a key evidence need for policy makers which has, up to now, not been satisfactorily met. It is important to note that this benefit of improved measurement of time-trends accrues even if estimates of the *level* of gambling and gambling harm are biased. That is to say, even if the estimates of gambling frequency and harm are too high due to nonresponse (as discussed below), the survey will still produce good estimates of change in these variables over time.

There are some issues that will require further consideration following the launch of the new design, to ensure public and stakeholder confidence in the quality and robustness of the statistics. Chief among them is the question of why the estimates of gambling prevalence and harm are so much higher in the push-to-web design than in the face-to-face interview surveys up to 2018. This has already been the subject of two investigations. Sturgis and Kuha (2022) placed most emphasis on the possibility of nonresponse bias in the push-to-web design inflating estimates of prevalence and harm, while Ashford et al (2022) came down more on the side of social desirability bias in the interviewer-administered surveys pushing the estimates downward from their true value. However, neither study was able to come to a definitive conclusion about the relative magnitudes of these errors nor, as a consequence, which estimates are closer to the truth.

Until there is a better understanding of the errors affecting the new survey's estimates of the prevalence of gambling and gambling harm, policy-makers must treat them with due caution, being mindful to the fact there is a non-negligible risk that they substantially over-state the true level of gambling and gambling harm in the population.

One possibility, considered in the pilot report (Ashford, et al. 2022) is that response propensity will be higher amongst gamblers when gambling is mentioned as the focus of the survey in the invitation letter. This is because we know that people are more likely to take part in a survey if the topic is personally salient to them. This would help to explain why a survey which is explicitly about gambling obtains a higher response rate amongst gamblers than a survey that is generically about 'health'. However, we might question whether this

would apply to problem gamblers, who may wish to avoid answering questions about their gambling as it may cause them emotional distress. Moreover, the 2010 BGPS was explicitly about gambling and also obtained similar estimates to the 2018 HSE. Understanding the direction of this relationship is crucial because this determines whether nonresponse is a compounding or an offsetting error with respect to social desirability.

I make seven recommendations for how the Gambling Commission should address the key remaining unresolved issues relating to how the shift to self-completion has affected estimates of gambling behaviour. Recommendations 1-4 should be considered of highest priority, while recommendations 5-7 are for longer term implementation and are, to some extent, dependent on circumstances beyond the Commission's control.

Recommendation 1: the Commission should conduct research to better understand the relationship between survey topic and the propensity of gamblers to respond to survey invitations.

The Ashord et al pilot survey report found that, at the same level of gambling, respondents are less likely to report high PGSI scores in the HSE compared to the pilot. It also found that HSE respondents reported lower PGSI scores when another household member was present during the interview. Both findings point to social desirability bias in the HSE as a reason for lower problem gambling estimates in this survey. However, these observational analyses rely on assumptions that are difficult to verify and are sensitive to which control variables are included in the models. A better approach to identifying the direction and size of a measurement bias would be to randomly assign respondents to online self-completion or an interview mode, as was recently done to evaluate mode effects on the Crime Survey for England and Wales.

Recommendation 2: the Gambling Commission should undertake additional research to better understand the role of socially desirable responding as the driver of the difference in gambling estimates between in-person and self-completion surveys.

The stage 3 experimental survey found significantly higher PGSI scores than the 2022 pilot. This might have been a result of the use of an updated list of gambling activities on the 2023 survey but it might equally have been due to an increase in gambling harm in the population. In order to assess the impact of the updated gambling activity list, an experimental design is necessary.

Recommendation 3: the Gambling Commission should undertake a randomised experiment to evaluate the effect of the updated list of gambling activities on estimates of gambling prevalence and harm.

The addition of a paper option for questionnaire completion means that the survey does not exclude the offline population and those who find online survey completion challenging. As this sub-group has quite distinct demographic characteristics and patterns of gambling behaviour, their inclusion is essential. However, the inability to efficiently route respondents through a paper questionnaire means that it does not contain the full set of questions that are included on the online version. Some of the questions reported on in the GSGB will therefore exclude the offline population as well as those who choose not to complete the survey online which may lead to biases that are not currently well understood.

Recommendation 4: the Gambling Commission should take steps to assess the extent of potential bias in the subset of questions administered to online respondents only.

An on-going difficulty for push-to-web surveys is the implementation of within household respondent selection. The current approach of asking up to 2 respondents with the most recent birthdays to complete the survey is industry standard but nonetheless less than ideal. There is emerging evidence that appending PAF to external databases with information about the number of people in households can be effective in tailoring the number of invitations across households. This is just one example of how this issue might be mitigated and the Commission should keep abreast of developments in this area.

Recommendation 5: the Gambling Commission should continue to monitor best practice developments in the area of within household selection of adults in push-to-web surveys.

Any survey that uses PAF as its sampling frame will have under-coverage of groups that do not live in private residences. For most variables of interest, the small size of this group renders this generally unproblematic but for gambling it is possible that incidence is considerably higher in the excluded groups.

Recommendation 6: The Gambling Commission should carry out research on the prevalence of gambling and gambling harm in groups that are excluded from the GSGB because they are not included on the sampling frame.

A key piece of evidence regarding the effect of moving to self-completion is a comparison to a contemporaneous survey carried out using random sampling and face-to-face interviewing. This is unlikely to be affordable as a standalone data collection exercise but could be done as part of one of the national Health Surveys in the future.

Recommendation 7: the Gambling Commission should seek opportunities to benchmark the estimates from the GSGB against a contemporaneous face-to-face interview survey in the future.

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Independent assessment gives Gambling Survey for Great Britain seal of approval

The development of the Gambling Survey for Great Britain (GSGB) has been endorsed by Professor Patrick Sturgis, London School of Economics as being ›exemplary.in.all.respects".

The independent review [Insert Link] published today, has assessed the GSGB's methodological approach against our objectives which were consulted on in 2020/21.

The review was designed to:

- Assess the GSGB methodological approach against best practice considering the context of current survey approaches
- Analyse the likely impact of the methodological approach on estimates of gambling participation and prevalence of gambling harms
- Make recommendations for improvement

This is an important milestone in the ongoing development of the GSGB, as we move towards the publication of official statistics from Wave 1 at the end of February.

Professor Patrick Sturgis: "The Gambling Commission has engaged with a broad range of stakeholders and followed industry standards of best practice in developing a survey design that will yield high quality estimates of gambling prevalence in Great Britain

"Following the launch of the GSGB, there are some key recommendations for the Commission to consider to ensure the quality and robustness of the statistics continues to build stakeholder and public confidence."

[redacted]: "We are delighted that Professor Sturgis's report concludes that the Gambling Commission have followed best practice in developing the GSGB survey.

"We are clear that better evidence, driven by better data will lead to better regulation, which in turn will lead to better outcomes. However, we take on board the recommendations in the report to continue to understand the impact of the changes made to both the survey design and the methodology as we move forward with the launch of the GSGB."

The read the full report and recommendations, visit: [Insert Link]

From: [redacted]
To: Sturgis,P
Cc: [redacted]
Subject: RE: Report
Date: 09 February 2024 12:10:00
Attachments: Sturgis report - news item.docx
image001.png
image002.png

Hi Patrick

Thanks for sharing the link to the report.

We have drafted a news article for our website which we will release on the 19th. I have attached a copy of the article in which we have included a draft quote from you. Please could you confirm if you are happy with the quote?

I have also been asked if you would be happy to supply a bio photo for use on social media (LinkedIn) so we can promote the report, and to confirm your correct title is Professor of Quantitative Social Science at the London School of Economics?

Thanks

[redacted]

From: Sturgis,P <[redacted]@lse.ac.uk>
Sent: Thursday, February 8, 2024 2:22 PM
To: [redacted] <[redacted]@gamblingcommission.gov.uk>
Subject: Re: Report

CAUTION: This email is from an external source - be careful of attachments and links

Hi [redacted] here is the link to the report, it will become available 12.01 am on 19 Feb.

Assessment of the Gambling Survey for Great Britain (GSGB) - LSE Research Online
eprints.lse.ac.uk

Best,

Patrick

From: [redacted]
To: Sturgis,P
Subject: RE: GSGB report
Date: 19 February 2024 10:22:00

Hi Patrick

Just to confirm the article has gone live on our website now Independent assessment endorses Gambling Survey for Great Britain (gamblingcommission.gov.uk)

Thanks

[redacted]

From: Sturgis,P <[redacted]@lse.ac.uk>
Sent: Monday, February 19, 2024 9:57 AM
To: [redacted] [redacted]@gamblingcommission.gov.uk>
Subject: Re: GSGB report

CAUTION: This email is from an external source - be careful of attachments and links

It should be working now.

> On 19 Feb 2024, at 09:28, [redacted] <[redacted]@gamblingcommission.gov.uk> wrote:
>
> Thank you! We'll hold off publishing the news article for now
>
> ---
>
> **From:** Sturgis,P [redacted]@lse.ac.uk>
> **Sent:** Monday, February 19, 2024 9:26 AM
> **To:** [redacted] <[redacted]@gamblingcommission.gov.uk>
> **Subject:** Re: GSGB report
>
> **CAUTION:** This email is from an external source - be careful of attachments and links
>
> Hi [redacted] it should just be open access, I have sent them an email to ask why it is asking for a login. Best,
>
> Patrick
>
> > On 19 Feb 2024, at 09:02, [redacted] <[redacted]@gamblingcommission.gov.uk> wrote:
> >
> > Hi Patrick
> >
> > It looks like your report has gone live on the LSE website. We'll be

publishing a news article at 10am with a link to the report.

Is it right that the report sits behind a login? It looks like people have to either login to read the report or request access and I presume it will then be sent to them?

Thanks

[redacted]

<image001.jpg> [redacted]

<image002.png>

www.gamblingcommission.gov.uk

Making gambling safer, fairer and crime free

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From: Sturgis,P
To: [redacted]
Subject: Re: Conference programme
Date: 07 March 2024 10:06:13
Attachments: PastedGraphic-1.png

CAUTION: This email is from an external source - be careful of attachments and links

Hi [redacted] I did thanks and I hope the rest of the day went well too. Yes, please do keep me informed of any developments, [redacted] and I are going to meet up in London at some point soon to discuss ideas for getting at the measurement/nonresponse conundrum. All the best,

Patrick

> On 7 Mar 2024, at 09:15, [redacted] [redacted]@gamblingcommission.gov.uk> wrote:
>
> Hi Patrick
>
> Just wanted to drop you a note and say thanks for coming to the conference yesterday. I hope you found it interesting.
>
> Would be great to stay in touch as we start to put a plan together for implementing your recommendations.
>
> Kind Regards
>
> [redacted]
>
> ---
>
> **From:** Sturgis,P [redacted]@lse.ac.uk>
> **Sent:** Wednesday, March 6, 2024 7:00 AM
> **To:** [redacted] <[redacted]@gamblingcommission.gov.uk>
> **Subject:** Re: Conference programme
>
> **CAUTION:** This email is from an external source - be careful of attachments and links
>
> Oh I see, hopefully I can be in the morning group as I won't be able to stay for the whole day unfortunately. See you later!
>
> > On 5 Mar 2024, at 18:44, [redacted] [redacted]@gamblingcommission.gov.uk> wrote:
> >
> > Hi Patrick, they are split sessions so half of all attendees will attend the GSGB session in the morning while the other half attend the other stream, and then we'll swap round in the

afternoon.

Thanks

[redacted]

From: Sturgis,P <[redacted]@lse.ac.uk>
Sent: Tuesday, March 5, 2024 6:34:57 PM
To: [redacted] <[redacted]@gamblingcommission.gov.uk>
Subject: Conference programme

Hi [redacted] I am a bit confused by the programme for the conference tomorrow, there seem to be two identical sessions on GBSB, one in the morning and one in the afternoon. Am I reading that right? Best,

Patrick

Patrick Sturgis
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Department of Methodology
The London School of Economics and Political Science
Connaught House, Aldwych, London WC2A2AE
[redacted]
Twitter: [redacted]
http://www.lse.ac.uk/Methodology

<PastedGraphic-1.png>