## SCOTTISH SOCIAL ATTITUDES SURVEY 2021/22:

# ATTITUDES TO SCOTLAND'S HANDLING OF THE PANDEMIC - TECHNICAL INFORMATION



## ScotCen Social Research that works for society



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## **Technical Details of the Survey**

#### 1. The Scottish Social Attitudes series

- 1.1 The Scottish Social Attitudes (SSA) survey was launched by ScotCen Social Research in 1999, following the advent of devolution. Based on annual rounds of interviews of between 1,000 to 1,500 people drawn using probability sampling (based on a stratified, clustered sample)<sup>1</sup>, it aims to facilitate the study of public opinion and inform the development of public policy in Scotland. In this it has similar objectives to the British Social Attitudes (BSA) survey, which was launched by ScotCen's parent organisation, NatCen Social Research in 1983. While BSA interviews people in Scotland, these are usually too few in any one year to permit separate analysis of public opinion in Scotland (see http://www.bsa.natcen.ac.uk/for more details of the BSA survey).
- 1.2 For the first time this year, SSA was conducted as a telephone survey rather than face-to-face, as a result of coronavirus restrictions in place at the time fieldwork was conducted. This maintained the random probability sample design with addresses selected at random from the postcode address file (PAF) but invited those sampled to opt-in to take part in a telephone interview (further details in Section 3 and 4). Similar transformations were undertaken across many large-scale surveys in Scotland, the UK and beyond with data previously collected via face-to-face interviews moving to various combinations of telephone, web and paper data collection. This year the sample was un-clustered as clustering is only required for face-to-face fieldwork. The change in design and the resulting level of response and sample composition means data from the 2021/22 survey cannot be straightforwardly compared with other years in the series. Further information is available in the technical report for the Core module.
- 1.3 SSA has been conducted annually each year since 1999, except for 2008, 2018 and 2020. The survey has a modular structure. In any one year it will typically contain a range of modules on different topics (a full module is considered to be 40 questions). Funding for its first two years came from the Economic and Social Research Council, while from 2001 onwards different bodies have funded individual modules each year. These bodies have included the Economic and Social Research Council (ESRC), the Scottish Government, NHS Health Scotland, the Equality and Human Rights Commission, and various charitable and grant awarding bodies such as the Nuffield Foundation and Leverhulme Trust.

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<sup>&</sup>lt;sup>1</sup> Like many national surveys of households or individuals, in order to attain the optimum balance between sample efficiency and fieldwork efficiency the sample was clustered. The first stage of sampling involved randomly selecting postcode sectors. The sample frame of postcode sectors was also stratified (by urban-rural, region and the percentage of people in non-manual occupations) to improve the match between the sample profile and that of the Scottish population.

#### 2. The 2021/22 survey

- 2.1 The 2021/22 survey included questions on the following topics; all of which were funded by the Scottish Government:
  - Attitudes towards Government (Core module)
  - Attitudes towards Scotland's handling of the coronavirus pandemic
  - Attitudes towards accessing healthcare services digitally
  - Attitudes towards people with problem drug use
- 2.2 Data from SSA 2021/22 will be deposited with the UK Data Archive in 2023. Separate programmes of reporting and dissemination are planned for each of the modules. This technical annex covers the methodological details of the survey.

## 3. Question design

- 3.1 A set of questions were developed in order to capture public attitudes towards the handling of the pandemic to address the key questions outlined in the report. In order to inform the development of the final set of questions, all of the potential new questions were cognitively tested and/or piloted between July and September 2021.
- 3.2 The aim of the cognitive testing was to ask a sample of respondents (14 people) a sub-set of the full survey questions being proposed, including 4 questions on the handling of the pandemic. This was followed by asking respondents a selection of probes to check whether they were interpreting the questions and associated answer options consistently. Adaptations were made to several questions as a result of the cognitive testing.
- 3.3 The aim of the survey pilot was to ask some of the questions being proposed for the main survey of a sufficient sample to establish whether the questions were understood in the context of the survey, whether respondents raised any issues with any of the questions and to look at the distribution of answers. The pilot sample consisted of 83 respondents out of a sample of 167 selected randomly from ScotCen panel members living in Scotland<sup>2</sup>. The pilot included 12 questions on attitudes towards the handling of the pandemic. The final 10 questions were agreed based on the findings of the pilot. For the full set of questions please see the appendix.

<sup>&</sup>lt;sup>2</sup> ScotCen Panel members are recruited from previous Scottish Social Attitudes surveys (SSA). Those interviewed as part of the SSA in 2015, 2016, 2017 and 2019 were asked to join the Panel at the end of the SSA interview.

### 4. Sample design

- 4.1 From 1999 to 2015, the survey was conducted with adults aged 18 or over. In 2016, the age range for the survey was extended to include 16- and 17-year-olds to reflect the lowering of the age limit for voting in Scottish elections.
- 4.2 The survey is designed to yield a representative sample of adults aged 16 or over living in private households in Scotland. The sample frame is the Postcode Address File (PAF), a list of postal delivery points compiled by the Post Office. Due to the change in survey mode for SSA 2021/22 from face-to-face to push-to-telephone, the sampling design was adjusted. Without face-to-face fieldwork, it was not necessary to cluster the sample. Instead, a stratification design was implemented to over-sample more rural areas and the most deprived SIMD 2020 quintile. The detailed procedure for selecting the 2021/22 sample was as follows:
  - i. The sampling frame was first divided into twelve sampling strata as listed below. These were based on Scottish Index of Multiple Deprivation 2020 quintiles and the Scottish Government's 6-fold urban-rural classification<sup>3</sup>.

Large Urban Area - SIMD quintile 1

Large Urban Area – SIMD quintiles 2 to 5

Other Urban Area - SIMD quintile 1

Other Urban Area – SIMD quintile 2 to 5

Accessible Small Town - SIMD quintile 1

Accessible Small Town – SIMD quintiles 2 to 5

Remote or Very Remote Small Town - SIMD quintile 1

Remote or Very Remote Small Town - SIMD quintile 2 to 5

Accessible Rural Area - SIMD quintile 1

Accessible Rural Area - SIMD quintile 2 to 5

Remote or Very Remote Rural Area - SIMD quintile 1

Remote or Very Remote Rural Area - SIMD quintile 2 to 5

- ii. The number of addresses to be drawn from each stratum were calculated based on differential response rates to SSA 2019 by SIMD quintile and urban-rural classification, with a target of at least 150 responses from each urban-rural category and SIMD quintile.
- iii. Invitations to take part were issued to the 21,775 addresses selected and any adult in the household was invited to opt-in to take part in the survey. Up to 2 eligible adults were able to take part per household. The total number of invitations issued consisted of a main sample of 11,071 addresses, a reserve sample of 3,129 addresses, and an additional sample of 7,575 addresses. An assumption was made, based on longstanding evidence from a range of previous face-to-face surveys which used PAF as a sampling frame, that 10% of

<sup>&</sup>lt;sup>3</sup> See http://www.gov.scot/Topics/Statistics/About/Methodology/UrbanRuralClassification for details.

addresses were ineligible to take part in this survey, as it is not possible with the survey methodology (opt-in approach) to ascertain eligibility for all issued addresses. Addresses that are ineligible or out of scope include: empty / derelict addresses, buildings under construction, holiday homes, businesses, other non-residential buildings (such as schools, offices and institutions), and addresses that had been demolished. Students are included at either their main term-time or their main out-of-term address.

#### 5. Fieldwork

- 5.1 Fieldwork for the 2021/22 survey ran between 21st October 2021 and 27th March 2022. As this was the first time SSA had used this methodology and as a result of the ongoing circumstances of the coronavirus pandemic, there was some uncertainty around the likely response rates that would be achieved. Initially due to complete within two months, the fieldwork period was extended to five months due to issues with response and the need to issue additional sample to secure a minimum number of interviews.
- 5.2 A letter and information leaflet were sent to each address inviting up to two adults who were resident there,<sup>4</sup> and aged 16 or over, to take part. The letter explained how potential respondents could opt-in by providing their telephone number either via secure online portal, email or contacting the survey freephone telephone helpline. Interviewers from ScotCen's Telephone Unit then contacted those who had opted in to conduct the survey interview or arrange a time to do so. Where possible, interviews were sought with two eligible members of each participating household. Up to two reminder letters were sent out to all households in the sample who had not opted in. Individuals were offered a £10 Love2Shop gift voucher for taking part.
- 5.3 All interviews were conducted over the telephone using computer assisted telephone interviewing (a process which involves the use of a laptop computer, with questions appearing on screen and interviewers directly entering respondents' answers into the computer).
- 5.4 Survey invitations were initially issued to 11,071 households. The sample size was set with the aim of achieving 1,200 interviews. It assumed that 10% of households would opt-in (the opt-in rate), that 90% of opted-in households would go on to complete an interview (the response rate) and that enough second interviews would be achieved across all households to deliver an average rate of 1.22 interviews per achieved household (the per household interview/PHI rate)<sup>5</sup>. Due to a lower than anticipated opt-in rate, response rate and per household interview rate, after 6 weeks of fieldwork a reserve sample of 3,129 cases was issued. Whilst the opt-in

<sup>5</sup> These assumptions were based primarily on figures from the Scottish Health Survey, which was delivering a similar approach, but also on a range of other UK push-to-telephone surveys.

<sup>&</sup>lt;sup>4</sup> Only one adult was able to opt-in per household, although they were informed that two adults can take part. Once the opt-in adult completed the interview they were asked if any other adults were able to take part or arrange a time to take part in the survey.

- rate marginally improved, response rate and PHI rate remained lower than expected. Thus, to fully assure an acceptable number of interviews, a further reserve of 7,575 address was issued.
- 5.5 After the intended two-month fieldwork period had lapsed due to lower than expected response rates, in an attempt to improve the opt-in rate, an additional mailing was issued to households in the original sample who had neither opted-in nor opted-out or had opted in but could not be reached to do the survey. This letter offering an increased incentive (£20 gift voucher) for taking part. The same was offered to those who had opted-in but could not be reached by the telephone interviewers. This additional mailing resulted in 173 interviews 15% of the total achieved which, whilst a significant increase, was not enough to avoid issuing the additional reserve sample.

## 6. Response rates

6.1 Of the addresses issued and assumed eligible, 7% opted in. The overall response rate among opted-in households was 77%. Table 1 (below) summarises the opt-in rate and response rate for SSA 2021/22.

Table 1: Scottish Social Attitudes survey opt-in and response rates, 2021/22

	No.	% of eligible sample	
Addresses issued <sup>1</sup>	21775	100%	
Assumed vacant, derelict and other out of scope <sup>2</sup>	2178	10%	
Achievable or 'in scope'	19598	90%	
Opted-in	1349	Opt-in rate (assumed ineligible included)	6.2%
		Opt-in rate (assumed ineligible excluded)	7%
	No.	% of opted-in househ (1349)	olds
Total interviews achieved <sup>3</sup>	1130	-	
Productive households	1043	77%	
1st adults in households who said another eligible adult lived in household <sup>4</sup>	126	9.3%	
2nd adults in households	87	6.5% (of opted-in house	eholds)
who took part		(69% of households whanother eligible adult live household)	

Reasons for interview not achieved	No.	% of opted in household
Refusals <sup>5</sup>	49	3.6%
Non-contact (household level) <sup>6</sup>	197	14.6%
Other unproductive <sup>7</sup>	18	1.3%

Notes to table:

<sup>2</sup>This includes empty / derelict addresses, buildings under construction, holiday homes, businesses, other non-residential (such as schools, offices and institutions), and addresses that had been demolished. Based on previous face-to-face surveys which had used PAF as a sampling frame, it was assumed that 10% of addresses would fall into this category.

<sup>3</sup>The total interviews achieved is higher than the no. of productive households because up to 2 eligible adults were able to take part per household.

<sup>4</sup>At the end of the interview the first adult in the household (generally the adult who opted-in to take part) was asked if there were any other adults (aged 16 and over) living at the address who could take part. If the respondent stated that there was another adult who could take part then the interviewer was either put through to speak to the second respondent or an appointment was booked to interview them at a different time. This can be compared to the number of second adults in the household who did take part.

<sup>5</sup>Refusals include any households who did not take part in the survey after having opted-in to take part including: refusals to the office; refusal by the selected person; 'proxy' refusals made by someone on behalf of the respondent; and broken appointments after which a respondent could not be re-contacted.

<sup>6</sup>These are the number of households (out of those who had opted-in to take part in the survey) whom the Telephone Unit interviewers had not been able to make contact with during the fieldwork period. In total contact was made with 1276 individuals (who had opted-in to take part or for whom another adult they live with who had completed the interview had suggested they might like to take part) which is 82% of productive households interviewed.

<sup>7</sup>'Other unproductive' includes people who were not available during fieldwork which may have been for a variety of reasons (such as being ill at home or in hospital during the survey period or away for most or all of the fieldwork period), people who were unable to participate due to physical or mental health issues or where a language barrier made recruitment too difficult (despite some translation and interpreting services being offered). This also includes those who were contacted in error (where a wrong number had been given during the opt-in) and those deceased.

<sup>&</sup>lt;sup>1</sup>These addresses were all sent a letter inviting them to opt-in to take part.

6.2 Table 2 below shows the achieved sample size for the full SSA sample (all respondents) for all previous years.

Table 2: Scottish Social Attitudes survey sample size by year

Survey year	Achieved sample size
1999	1482
2000	1663
2001	1605
2002	1665
2003	1508
2004	1637
2005	1549
2006	1594
2007	1508
2009	1482
2010	1495
2011	1197
2012	1229
2013	1497
2014	1501
2015	1288
2016	1237
2017	1234
2019	1022
2021/22	1130

## 7. Weighting

7.1 All percentages cited in SSA reports are based on weighted data. The weights applied to the SSA 2021/22 data are intended to correct for potential sources of bias in the sample including differential selection probabilities due to deliberate over-sampling of rural areas and the most deprived SIMD quintile as well as non-response.

Due to the change in survey mode for SSA 2021/22 from face-to-face to push-to-telephone, the weighting design required adjustments. For 2021/22 it consisted of three stages:

- Selection weighting
- Modelling participation within households
- Calibration

The first stage, selection weighting, controlled for the effects of the sampling design. Issued cases received a weight adjusting for the differential probability of selection by sampling strata. The 12 sampling strata are listed in section 3.2.

The second stage, within-household participation weighting, consisted of modelling the probability that households with more than 1 eligible adult would provide 2 responses. A logistic regression model was fitted for households with more than 1 eligible adult with number of responses as the outcome measure and variables associated with participation as the covariates. Area-level census variables and survey variables harmonised at household level were tested for association with number of responses per household. Stepwise logistic regression was used to fit the model for within-household participation.

The final model included the following variables: harmonised household income, quintiles of population density, quintiles of population aged over 55, and quintiles of population in a BME group. From this model, the predicted propensity to provide one or two responses was estimated for households with at least one eligible adult. Households with only one eligible adult were assigned a probability of 1. The within-household non-response weights were calculated as the reciprocal of these propensities.

The third stage was calibration weighting, which adjusts the weights so that characteristics of the weighted achieved sample match population estimates. The selection and non-response weights were combined and rescaled to the mid-year population estimate for adults aged 16 or above in Scotland prior to calibration. The calibration variables used in 2021/22 were age by sex categories and SIMD quintiles. After calibration, the weights were trimmed at the 1st and 99th percentiles to remove outliers and improve weighting efficiency.

The final weighting efficiency for 2021/22 was 50% with an effective sample size of 565. The reduction in weighting efficiency compared with SSA 2017 and 2019 reflects the lower response rate and higher level of bias within the 2021/22 responding sample. The weighting adjustments were chosen in order to balance the requirements of maximising efficiency and minimising residual bias in key variables and those in the most deprived SIMD quintile.

## 8. Analysis variables

8.1 Most of the analysis variables are taken directly from questions asked standardly in the full survey and are self-explanatory. The following analysis variables require explanation.

#### **Scottish Index of Multiple Deprivation (SIMD)**

- 8.2 The Scottish Index of Multiple Deprivation (SIMD)<sup>6</sup> measures the level of deprivation across Scotland from the least deprived to the most deprived areas. It is based on 38 indicators in seven domains of: income, employment, health, education skills and training, housing, geographic access and crime. SIMD is presented at data zone level, enabling small pockets of deprivation to be identified. The data zones are ranked from most deprived (1) to least deprived (6,976) on the overall SIMD and on each of the individual domains. The result is a comprehensive picture of relative area deprivation across Scotland.
- 8.3 The analysis in this report used a variable created from SIMD 2020 data indicating the level of deprivation of the data zone in which the respondent lived in quintiles, from most to least deprived<sup>7</sup>.

#### The Scottish Social Attitudes Survey two-fold urban-rural classification (urbanac)

8.4 The 2-fold version of the urban-rural classification is included on the dataset (urbanac). Areas in this version are classified as 'urban' (codes 1-3 below) and 'rural' (codes 4-6 below).

<sup>&</sup>lt;sup>6</sup> See <a href="https://www.gov.scot/collections/scottish-index-of-multiple-deprivation-2020/">https://www.gov.scot/collections/scottish-index-of-multiple-deprivation-2020/</a> for further details on the SIMD.

<sup>&</sup>lt;sup>7</sup> These variables were created by the ScotCen/NatCen Statistics Unit. They are based on SIMD scores for all datazones, not just those included in the sample – so an individual who lives in the most deprived quintile of Scotland will also be included in the most deprived quintile in the SSA dataset.

Table 3: Urban and rural area types

	Area type	
1	Large Urban Areas	Settlements of 125,000 or more people.
2	Other Urban	Settlements of 10,000 to 124,999 people.
3	Accessible small towns	Settlements 3,000 to 9,999 people and within 30 minutes' drive of a settlement of 10,000 or more.
4	Remote small towns	Settlements of 3,000 to 9,999 people and with a drive time of over 30 minutes to a settlement of 10,000 or more.
5	Accessible rural	Areas with a population of less than 3,000 people and within a 30 minute drive time of a settlement of 10,000 or more.
6	Remote rural	Areas with a population of less than 3,000 people and with a drive time of over 30 minutes to a settlement of 10,000 or more.

The following variables, although not included as breakdowns within the tables or report on this topic will be included within the archived dataset (available via UKDS) and require further explanation if used for analysis.

#### **National Statistics Socio-Economic Classification (NS-SEC)**

- 8.5 The most commonly used classification of socio-economic status used on government surveys is the National Statistics Socio-Economic Classification (NS-SEC). SSA respondents were classified according to their own occupation, rather than that of the 'head of household'. Each respondent was asked about their current or last job, so that all respondents, with the exception of those who had never worked, were classified. The seven NS-SEC categories are:
  - Employers in large organisations, higher managerial and professional
  - Lower professional and managerial; higher technical and supervisory
  - Intermediate occupations
  - Small employers and own account workers
  - Lower supervisory and technical occupations
  - Semi-routine occupations
  - Routine occupations
- 8.6 The remaining respondents were grouped as 'never had a job' or 'not classifiable'.

#### The Libertarian – Authoritarian scale (LibAuth)

8.7. Since 1999, the Scottish Social Attitudes survey has included an attitude scale which is designed to ascertain whether respondents are more inclined to the

libertarian or the authoritarian end of the ideological spectrum. The scale consists of six statements to which the respondent is invited to "agree strongly", "agree", "neither agree nor disagree", "disagree" or "disagree strongly". The statements are as follows:

- 1) Young people today don't have enough respect for traditional British values
- 2) People who break the law should be given stiffer sentences
- 3) For some crimes, the death penalty is the most appropriate sentence
- 4) Schools should teach children to obey authority
- 5) The law should always be obeyed, even if a particular law is wrong
- 6) Censorship of films and magazines is necessary to uphold moral standards

The scores to all the questions in the scale are added and then divided by the number of items in the scale, giving indices ranging from 1 to 6. A derived variable was produced for the purpose of analysis in which these indices (from 1 to 6) were divided into terciles with the 33% with the lowest scores categorised as 'Libertarian', the 33% with the middle scores as 'Neither' and the 33% with the highest scores as 'Authoritarian'

#### The Left – Right scale (LeftRigh)

- 8.8 Since 1999, the Scottish Social Attitudes survey has included an attitude scale which aims to measure respondents' underlying political views and whether these are situated to the left or right of the political spectrum. The scale consists of five statements to which the respondent is invited to "agree strongly", "agree", "neither agree nor disagree", "disagree" or "disagree strongly". The statements are as follows:
  - 1) Government should redistribute income from the better off to those who are less well off
  - 2) Big business benefits owners at the expense of workers
  - 3) Ordinary working people do not get their fair share of the nation's wealth
  - 4) There is one law for the rich and one law for the poor
  - 5) Management will always try to get the better of employees if it gets the chance

The scores to all the questions in the scale are added and then divided by the number of items in the scale, giving indices ranging from 1 (left) to 5 (right). A derived variable was produced for the purpose of analysis in which these indices (from 1 to 5) were divided into terciles with the 33% with the lowest scores categorised as 'Left', the 33% with the middle scores as 'Neither' and the 33% with the highest scores as 'Right.'

#### **Attitudes towards pandemic handling scale (Panscale3)**

8.9 An index of the public's views on Scotland's handling of the coronavirus pandemic was created for analysis of the SSA Core module. Given the relevance of public perceptions of how effectively the Scottish Government has managed the pandemic to overall trust in the Scottish and UK Governments (as measured in the Core

module) it was considered essential to analyse the latter views by an index of the former. This index variable will be included in the archived dataset and can also be used for further analysis of the pandemic handling or other topics covered on SSA the same year. A derived variable was created to index overall views on Scotland's handling of the pandemic which combined the following 7 questions that were asked in the pandemic handling module that were found to be highly correlated:

- "How much, if at all, did you trust the data that was made available during the pandemic about the spread of coronavirus in Scotland? (A great deal, Quite a lot, Somewhat, Not very much, Not at all)
- "How much have you trusted the information provided by scientists during the pandemic?" (Just about always, Most of the time, Only some of the time, Almost never)
- "And how much have you trusted the information provided by the Scottish Government during the pandemic?" (Just about always, Most of the time, Only some of the time, Almost never)
- "In general, how well or badly do you think the Scottish Government understood the impact of the coronavirus restrictions on the lives of people like yourself?" (Very well, Fairly well, Neither well nor badly, Fairly badly, Very badly)
- "In general, how good or bad do you think the Scottish Government have been at listening to the views of people like yourself about how best to handle the coronavirus pandemic?" (Very good, Fairly good, Neither good nor bad, Fairly bad, Very bad)
- "During the coronavirus pandemic to what extent, if at all, would you say the Scottish Government had the interest of people like yourself at heart?" (A great deal, Quite a lot, Somewhat, Not very much, Not at all)
- "Say that in five years' time there was another pandemic like COVID19. How
  confident are you, if at all, that Scotland would be properly prepared to deal
  with it?" (Not at all confident, Not very confident, Fairly confident, Very
  confident)

Items on some of the above questions were reversed so that a lower score indicates a more positive view towards Scotland's handling of the pandemic and higher scores indicate a more negative view. As with the Libertarian-Authoritarian and Left-Right scales, this combined scale was divided into terciles for the purpose of analysis with the 33% with the lowest scores categorised as 'Positive to pandemic handling', the 33% with the middle scores as 'Neutral' and the 33% with the highest scores as 'Negative towards pandemic handling.'

## 9. Analysis techniques

#### Significance testing

9.1 Where reports authored by ScotCen Social Research discuss differences between two percentages (such as two different groups of people within a single year), this difference is significant at the 95% level or above, unless otherwise stated. Differences between groups within a given year are tested using logistic regression analysis, which shows the factors and categories that are significantly (and independently) related to the dependent variable. Analysis is carried out in IBM SPSS Statistics v.25, using the CS logistic function to take account of the sample design in calculations.

#### Multiple logistic regression analysis

9.2 Additional logistic regression analysis was conducted for Chapter 4 on 'views on how prepared Scotland is for another pandemic' using key demographic variables to explore which factors were driving differences in attitudes. In addition to the standard analysis variables explored in this report (age, gender, household composition, highest educational qualification, whether anyone in the household has had COVID-19, area deprivation measured by SIMD) also included in this model were national identity, political party affliation, level of trust in the Scottish Government to act in Scotland's best interests and views on how well the Scottish Government listens before taking decisions, enabling variations associated with these views to be controlled for. Once the full models were run, those analysis variables that were found not to have significant relationships with the outcome variables in the model were excluded and a 'reduced' model using only the significant variables was run. The variables included in the relevant reduced model are included in the Supplementary tables to the report.

Logistic regression analysis is a method of summarising the relationship between a binary 'outcome' variable and one or more 'predictor' variables. It allows us to estimate the odds of an individual having a score of '1' on the outcome variable (as opposed to '0') from their responses to the predictor variables (i.e. demographic and other key attitudinal variables).

The Supplemtary Tables to the main report show the results of logistic regression analysis of factors associated with attitudes towards Scotland's preparedness for another pandemic. In the model shown in these tables the score of '1' on the dependent variable refers to individuals feeling 'not at all confident/not very confident' that Scotland would be properly prepared to deal with another pandemic, while a '0' refers to individuals feeling 'fairly confident/very confident.'

The Summplementary tables (Table 1) shows how the odds for each category of each predictor variable compared with the odds for the reference category. An odds ratio of greater than 1 indicates that, holding all other factors constant, there is an increased likelihood of an individual in that category being in the category '1' for the outcome variable (feeling 'not at all confident/not very confident' that Scotland would be properly prepared to deal with another pandemic) compared with an

individual in the reference (as known as base) category. For example, in Table 1, the odds ratio of 3.6 for the category 'Conservative party affiliation' means that Conservative party supporters are more likely than SNP (Scottish National Party) supporters (the reference category) to feel 'not at all confident/not very confident' that Scotland would be properly prepared to deal with another pandemic (and the odds of a Conservative supporter holding this belief are 3.6 times those for a SNP supporter, holding all other factors constant). Conversely, an odds ratio of below 1 means they have lower odds of holding this belief than respondents in the reference category.

Because data are taken from a sample, we recognise that the odds ratios are only estimates, so we also include confidence intervals around each estimate. If the survey were to be repeated, we would expect the true value to fall within these odds ratios 95 times out of 100.

Two measures of statistical significance are provided. The first is for the comparison between a particular category and the reference (or base) category, while the second is for the variable as a whole. Where the independent variable has just two categories, these are the same. A significance level of 0.05 or less indicates that there is less than a 5% chance we would have found these differences between the categories just by chance if in fact no such difference exists, hence we can say that we are 95% sure there is a relationship between the predictor and outcome variables. A level of <0.001 indicates that there is a less than 0.1% chance, so we can say that we are 99.9% sure that the relationship exists. For the purposes of Supplementary table 1, we described a level of significance of less than 0.01 as "highly significant" and of between 0.01 and 0.05 as "moderately significant".

The Nagelkerke R2 value provided at the bottom of table 1 is a rough indication of the proportion of variation in the outcome variable explained by the predictor variables in the model. Nagelkerke's R2 is most often quoted in logistic regression as a measure of strength of association ranging from 0 to 1. The closer the R2 value is to 1, the better the model is at accurately predicting the value of the outcome variable. A value closer to 0, suggests that there are important explanatory factors which are not included in the model. The value for this model (as shown in Table 1) is 0.34 which is fairly typical for this type of analysis.