Supplementary material:

Supplementary Table 1**. Methods and results of the sensitivity analysis**

Methods	In the main analyses performed in this study, only complete case respondents (respondents that did not have any missing data for any of the variables included in the analyses) were included. We ran sensitivity analyses to explore the effects of excluding respondents with missing data. We first calculated the proportion of respondents with complete data per practice using the complete dataset (n=2198821) and assigned each practice a new variable indicating the proportion of complete case respondents in the practice. We then separated the complete case respondents (n=1807049) into three categories based on the proportion of complete case respondents in their practice. The three categories were: highest missing data group (≥75%), middle-range missing data group (26-74%), and lowest missing data group (≤25%). We then ran the same two-level mixed-effects models for each of the outcomes (online appointment booking and online repeat prescription use) separately for each of the three categories.
Results	The summary statistics of the sensitivity analysis groups are reported in table Supplementary Table 5. GPs with the highest proportion of missing data (practices with

	75% or more of respondents with missing data) had slightly higher percentage of younger age groups from 16 to 44 and they had a greater proportion of respondents from Black, Asian and Other ethnic backgrounds as well. Greater proportion or respondents from the most deprived group compared to the GPs with lower missing data. Results of the sensitivity mixed-effects regression analyses for the online appointment booking outcome is in table Supplementary Table 6. Most of the predictor variables in Supplementary Table 6 had similar odds ratios and/or overlapping confidence intervals when comparing the respondents from the practices with the different proportion of missing data. The difference in odds ratios when comparing respondents from the three different practice types (based on the proportion of missing data) were seen in the predictors: having a long-term condition (answering yes), age group, ethnicity, parent status, carer status, year of survey and GP rurality. These differences indicate that the characteristics of respondents within each type of the GPs (based on the proportion of missing data) were more similar to each other than the other type of practices. For the repeat prescription outcome (Supplementary Table 7), differences in odds ratios were also seen for the long-term condition (answering yes), age groups, ethnicity, being a parent, being a carer and for the deprivation quintile. Among the highest missing data GP practice respondents, the least deprived group had 89% (OR: 1.89, 95% CI: 1.82-1.97)

	greater odds of online repeat prescription use compared to respondents from the most deprived group where this percentage was only 65% (OR: 1.65, 95% CI: 1.59-1.71) in the lowest missing data GP practice respondents. This indicates that deprivation has a larger impact in practices with the most missing data compared to practices with the least missing data for the online repeat prescription ordering outcome. Sensitivity analyses results reveal that some of the estimates in this study may be attenuated if missing data/non-response respondents were present. However, although most of the estimates of effect were slightly different in the sensitivity analyses compared to the main analyses, there was no change in terms of the direction of the effects. For example, odds ratios that were larger than one in the main analyses remained to be larger than one in all three models of the sensitivity analysis. The sensitivity analysis also revealed that differences in online services between the three categories of GPs use were bigger for online repeat prescription use compared to the online appointment booking use. The differences between the odds ratios based on the deprivation quintile for online repeat prescription was also bigger than online appointment booking in all the categories of GPs indicating that socioeconomic inequities may have a larger influence on online repeat prescription ordering than online appointment booking. At the same time, for the online repeat prescription outcome, the difference in deprivation quintile were associated with

	bigger differences in the odds associated with the outcome for respondents from the highest missing data GPs compared to the other GPs.

Supplementary Table 2 STROBE 2007 checklist [12] of items to be included in reports of observational studies in epidemiology

Checklist for cohort, case-control, and cross-sectional studies (combined)

Section/Topic	Item #	Recommendation	Reported on page #
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract	1
		(b) Provide in the abstract an informative and balanced summary of what was done and what was found	2
Introduction			
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	3-5
Objectives	3	State specific objectives, including any pre-specified hypotheses	4-5
Methods			
Study design	4	Present key elements of study design early in the paper	5
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	8
Participants	6	(*a*) *Cohort study*—Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up *Case-control study*—Give the eligibility criteria, and the sources and methods of case ascertainment and control selection. Give the rationale for the choice of cases and controls *Cross-sectional study*—Give the eligibility criteria, and the sources and methods of selection of participants	7
		(*b*) *Cohort study*—For matched studies, give matching criteria and number of exposed and unexposed *Case-control study*—For matched studies, give matching criteria and the number of controls per case	-
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	6-7
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	*6-7*
Bias	9	Describe any efforts to address potential sources of bias	9 & Supplementary Table 1

Study size	10	Explain how the study size was arrived at	8
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	6-7
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding	9
		(*b*) Describe any methods used to examine subgroups and interactions	Supplementary Table 1
		(*c*) Explain how missing data were addressed	Supplementary Table 1
		(*d*) *Cohort study*—If applicable, explain how loss to follow-up was addressed *Case-control study*—If applicable, explain how matching of cases and controls was addressed *Cross-sectional study*—If applicable, describe analytical methods taking account of sampling strategy	
		(*e*) Describe any sensitivity analyses	Supplementary Table 1
Results			
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed	10
		(b) Give reasons for non-participation at each stage	10
		(c) Consider use of a flow diagram	-
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	10-13
		(b) Indicate number of participants with missing data for each variable of interest	13 & Supplementary Table 3
		(c) *Cohort study*—Summarise follow-up time (eg, average and total amount)	Data collection times are summarized under study design subsection
Outcome data	15*	*Cohort study*—Report numbers of outcome events or summary measures over time	Supplementary Table 3 (check categories of survey year)
		Case-control study—Report numbers in each exposure category, or summary measures of exposure	Supplementary Table 3
		Cross-sectional study—Report numbers of outcome events or summary measures	13 & table 3
Main results	16	(*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included	14-18, Supplementary Table 5
		(*b*) Report category boundaries when continuous variables were categorized	Table 1

		(*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	NA
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	Supplementary Table 1, Supplementary Table 6-7
Discussion			
Key results	18	Summarise key results with reference to study objectives	20
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	21-22
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	23-24
Generalisability	21	Discuss the generalisability (external validity) of the study results	23-24
Other information			
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	26

Supplementary Table 3 The breakdown of respondents by characteristics in the total sample received (n=2,198,821), in the complete case dataset used for the analyses in this study (n=1,806,977) and in the excluded sample (n=439,060)

Characteristics	**Total in the sample received (n=2,246,109)**	**Total in the complete case dataset (n=1807049)**	**Total in the excluded sample (n=439,060)**
Online appointment booking in the previous 12 months			
No	1892841 (84.3%)	1543111 (85.4%)	349730 (79.7%)
Yes	305980 (13.6%)	263938 (14.6%)	42042 (9.6%)
(Missing)	47288 (2.1%)	0 (0.0%)	47288 (10.8%)
Online repeat prescription ordering in the previous 12 months			
No	1807863 (80.5%)	1467600 (81.2%)	340263 (77.5%)
Yes	390958 (17.4%)	339449 (18.8%)	51509 (11.7%)
(Missing)	47288 (2.1%)	0 (0.0%)	47288 (10.8%)
Gender			

Female	1229473 (54.7%)	996544 (55.1%)	232929 (53.1%)
Male	967079 (43.1%)	810505 (44.9%)	156574 (35.7%)
(Missing)	49557 (2.2%)	0 (0.0%)	49557 (11.3%)
Age			
16-24	87081 (3.9%)	74381 (4.1%)	12700 (2.9%)
25-34	185580 (8.3%)	159806 (8.8%)	25774 (5.9%)
35-44	256766 (11.4%)	217687 (12.0%)	39079 (8.9%)
45-54	360011 (16.0%)	302285 (16.7%)	57726 (13.1%)
55-64	454900 (20.3%)	381808 (21.1%)	73092 (16.6%)
65-74	487171 (21.7%)	397999 (22.0%)	89172 (20.3%)
75-84	287533 (12.8%)	211586 (11.7%)	75947 (17.3%)
85+	91083 (4.1%)	61497 (3.4%)	29586 (6.7%)
(Missing)	35984 (1.6%)	0 (0.0%)	35984 (8.2%)
Ethnicity			
White	1895473 (84.4%)	1567690 (86.8%)	15862 (3.6%)
Black	68812 (3.1%)	52950 (2.9%)	33583 (7.6%)
Asian	170609 (7.6%)	137026 (7.6%)	10257 (2.3%)
Other	39425 (1.8%)	29168 (1.6%)	4558 (1.0%)
Mixed	24773 (1.1%)	20215 (1.1%)	327783 (74.7%)
(Missing)	47017 (2.1%)	0 (0.0%)	47017 (10.7%)
Survey year			
2018	750619 (33.4%)	612084 (33.9%)	138535 (31.6%)
2019	763244 (34.0%)	623358 (34.5%)	139886 (31.9%)
2020	732246 (32.6%)	571607 (31.6%)	160639 (36.6%)
(Missing)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Long term condition			
No	1022671 (45.5%)	833523 (46.1%)	189148 (43.1%)
Yes	1050129 (46.8%)	923780 (51.1%)	126349 (28.8%)
Don’t know/Can’t say	61802 (2.8%)	49746 (2.8%)	12056 (2.7%)
Prefer not to say	38879 (1.7%)	0 (0.0%)	38879 (8.9%)
(Missing)	72628 (3.2%)	0 (0.0%)	72628 (16.5%)
Taking five or more medication on a regular basis			
No	1632850 (72.7%)	1343735 (74.4%)	289115 (65.8%)

Yes	574749 (25.6%)	463314 (25.6%)	111435 (25.4%)
(Missing)	38510 (1.7%)	0 (0.0%)	38510 (8.8%)
Deafness or hearing loss			
No	1799633 (80.1%)	1652099 (91.4%)	147534 (33.6%)
Yes	179304 (8.0%)	154950 (8.6%)	24354 (5.5%)
(Missing)	267172 (11.9%)	0 (0.0%)	267172 (60.9%)
Parent or legal guardian to a 16 year old or younger			
No	1782911 (79.4%)	1466017 (81.1%)	316894 (72.2%)
Yes	407923 (18.2%)	341032 (18.9%)	66891 (15.2%)
(Missing)	55275 (2.5%)	0 (0.0%)	55275 (12.6%)
Carer			
No	1741536 (77.5%)	1462467 (80.9%)	279069 (63.6%)
Yes	410450 (18.3%)	344582 (19.1%)	65868 (15.0%)
(Missing)	94123 (4.2%)	0 (0.0%)	94123 (21.4%)
Deprivation fifth			
1- least deprived	437189 (19.5%)	338728 (18.7%)	98461 (22.4%)
2	444869 (19.8%)	353580 (19.6%)	91289 (20.8%)
3	464884 (20.7%)	376042 (20.8%)	88842 (20.2%)
4	461586 (20.6%)	378002 (20.9%)	83584 (19.0%)
5 - most deprived	435997 (19.4%)	360697 (20.0%)	75300 (17.2%)
(Missing)	1584 (0.1%)	0 (0.0%)	1584 (0.4%)
General practice rurality			
Rural	374466 (16.7%)	306200 (16.9%)	68266 (15.5%)
Urban	1871643 (83.3%)	1500849 (83.1%)	370794 (84.5%)
(Missing)	0 (0.0%)	0 (0.0%)	0 (0.0%)

Supplementary Table 4 Breakdown of the number and proportion of respondent characteristics based on the categories of the proportion of missing data in the GP practice

Characteristics	Respondents from practices with 25% or less respondents with missing data n=474082, 1843 practices	Respondents from practices with 26%-74% of respondents with missing data n=909152, 3361 practices	Respondents from practices with 75% or more respondents with missing data. n=423815, 2052 practices
Online services use			
Online appointment booking in the previous 12 months	75194(15.9%)	176193(19.4%)	55937(13.1%)
Online repeat prescription use in the previous 12 months	102332(21.6%)	176193(19.4%)	60924(14.4%)
Gender			
Female	265428 (56.0%)	503040 (55.3%)	228076 (53.8%)
Male	208654 (44.0%)	406112 (44.7%)	195739 (46.2%)
Age			
16-24	18750 (4.0%)	34473 (3.8%)	21158 (5.0%)
25-34	39537 (8.3%)	75142 (8.3%)	45127 (10.6%)
35-44	55609 (11.7%)	103244 (11.4%)	58834 (13.9%)
45-54	79934 (16.9%)	149707 (16.5%)	72644 (17.1%)
55-64	100332 (21.2%)	194450 (21.4%)	87026 (20.5%)
65-74	106927 (22.6%)	208741 (23.0%)	82331 (19.4%)

Characteristics	**Respondents from practices with 25% or less respondents with missing data n=474082, 1843 practices**	**Respondents from practices with 26%-74% of respondents with missing data n=909152, 3361 practices**	**Respondents from practices with 75% or more respondents with missing data. n=423815, 2052 practices**
75-84	56564 (11.9%)	111123 (12.2%)	43899 (10.4%)
85+	16429 (3.5%)	32272 (3.5%)	12796 (3.0%)
Ethnicity			
White	5027 (1.1%)	17758 (2.0%)	30165 (7.1%)
Black	16190 (3.4%)	49142 (5.4%)	71694 (16.9%)
Asian	3729 (0.8%)	10722 (1.2%)	14717 (3.5%)
Other	4175 (0.9%)	8704 (1.0%)	7336 (1.7%)
Mixed	444961 (93.9%)	822826 (90.5%)	299903 (70.8%)
Survey year			
2018	166729 (35.2%)	305514 (33.6%)	139841 (33.0%)
2019	162214 (34.2%)	315671 (34.7%)	145473 (34.3%)
2020	145139 (30.6%)	287967 (31.7%)	138501 (32.7%)
Long-term condition			
No	11725 (2.5%)	24207 (2.7%)	13814 (3.3%)
I don’t know/ Can’t answer	220575 (46.5%)	411974 (45.3%)	200974 (47.4%)
Yes	241782 (51.0%)	472971 (52.0%)	209027 (49.3%)

Characteristics	**Respondents from practices with 25% or less respondents with missing data n=474082, 1843 practices**	**Respondents from practices with 26%-74% of respondents with missing data n=909152, 3361 practices**	**Respondents from practices with 75% or more respondents with missing data. n=423815, 2052 practices**
Taking five or more medication on a regular basis			
No	363720 (76.7%)	674880 (74.2%)	305135 (72.0%)
Yes	110362 (23.3%)	234272 (25.8%)	118680 (28.0%)
Deafness or hearing loss			
No	433463 (91.4%)	827757 (91.0%)	390879 (92.2%)
Yes	40619 (8.6%)	81395 (9.0%)	32936 (7.8%)
Parent or legal guardian to a 16 year old or younger			
No	385230 (81.3%)	746422 (82.1%)	334365 (78.9%)
Yes	88852 (18.7%)	162730 (17.9%)	89450 (21.1%)
Carer			
No	382112 (80.6%)	732193 (80.5%)	348162 (82.1%)
Yes	91970 (19.4%)	176959 (19.5%)	75653 (17.9%)
Deprivation quintile			
1 (Most deprived)	38111 (8.0%)	146156 (16.1%)	154461 (36.4%)

Characteristics	**Respondents from practices with 25% or less respondents with missing data n=474082, 1843 practices**	**Respondents from practices with 26%-74% of respondents with missing data n=909152, 3361 practices**	**Respondents from practices with 75% or more respondents with missing data. n=423815, 2052 practices**
2	64792 (13.7%)	174694 (19.2%)	114094 (26.9%)
3	99792 (21.0%)	199586 (22.0%)	76664 (18.1%)
4	124261 (26.2%)	203142 (22.3%)	50599 (11.9%)
5 (Least deprived)	147126 (31.0%)	185574 (20.4%)	27997 (6.6%)
General practice rurality			
Rural	116101 (24.5%)	165787 (18.2%)	24312 (5.7%)
Urban	357981 (75.5%)	743365 (81.8%)	399503 (94.3%)

Supplementary Table 5. Table presenting summaries of the univariate analyses for each of the outcomes:

Summary of univariate analysis for the online appointment booking outcome univariate analysis with each of the predictors (1807049 respondents in 7256 practices)

Predictors	*Odds Ratios*	*SE*	*CI*	*p*
Long term condition (REF= No)				
Long term condition- I don't know/ Can't say	1.10	0.02	1.07 - 1.13	**<0.001**
Long term condition- Yes	1.50	0.01	1.48 - 1.51	**<0.001**
Taking five or more medication on a regular basis-Yes (REF= No)	1.16	0.01	1.15 - 1.17	**<0.001**
Deafness or hearing loss-Yes (REF= No)	0.94	0.01	0.92 - 0.95	**<0.001**
Gender-Male (REF= Female)	0.88	0.00	0.87 - 0.89	**<0.001**
Age bands (REF: 85+)				
16-24	2.32	0.05	2.24 - 2.41	**<0.001**
25-34	3.05	0.05	2.94 - 3.15	**<0.001**
35-44	3.00	0.05	2.9 - 3.11	**<0.001**
45-54	2.96	0.05	2.87 - 3.06	**<0.001**
55-64	2.88	0.05	2.79 - 2.98	**<0.001**
65-74	2.62	0.04	2.53 - 2.71	**<0.001**
	1.61	0.03	1.56 - 1.67	**<0.001**
Ethnicity (REF: White)				

Black	0.81	0.01	0.79 - 0.84	**<0.001**
Asian	1.10	0.01	1.08 - 1.12	**<0.001**
Other	0.94	0.02	0.91 - 0.97	**<0.001**
Mixed	1.11	0.02	1.07 - 1.16	**<0.001**
Parent or legal guardian to a 16-year-old or younger-Yes (REF= No)	1.06	0.01	1.05 - 1.07	**<0.001**
Carer-Yes (REF= No)	1.21	0.01	1.2 - 1.22	**<0.001**
Deprivation quintile (REF: 1- Most deprived)				
2	1.11	0.01	1.1 - 1.13	**<0.001**
3	1.19	0.01	1.18 - 1.21	**<0.001**
4	1.28	0.01	1.26 - 1.3	**<0.001**
5 (least deprived)	1.38	0.01	1.36 - 1.41	**<0.001**
Survey year (REF= 2018)				
2019	1.18	0.01	1.17 - 1.2	**<0.001**
2020	1.50	0.01	1.48 - 1.51	**<0.001**
General practice rurality-urban (REF= rural)	1.07	0.02	1.03 - 1.11	**<0.001**

Summary of univariate analysis for the repeat prescription ordering outcome univariate analysis with each of the predictors (1807049 respondents in 7256 practices)

Predictors	*Odds Ratios*	*SE*	*CI*	*p*
Long term condition (REF= No)				
Long term condition- I don't know/ Can't say	1.21	0.02	1.18 - 1.24	**<0.001**
Long term condition- Yes	2.70	0.01	2.68 - 2.73	**<0.001**
Taking five or more medication on a regular basis-Yes (REF= No)	1.72	0.01	1.71 - 1.74	**<0.001**
Deafness or hearing loss-Yes (REF= No)	1.13	0.01	1.11 - 1.14	**<0.001**
Gender-Male (REF= Female)	1.01	0.00	1 - 1.02	**0.007**
Age bands (REF: 85+)				
16-24	0.87	0.02	0.84 - 0.9	**<0.001**
25-34	1.06	0.02	1.03 - 1.09	**<0.001**
35-44	1.37	0.02	1.33 - 1.4	**<0.001**
45-54	1.91	0.03	1.86 - 1.96	**<0.001**
55-64	2.31	0.03	2.25 - 2.37	**<0.001**
65-74	2.41	0.03	2.35 - 2.47	**<0.001**
Ethnicity (REF: White)				
Black	0.66	0.01	0.64 - 0.68	**<0.001**
Asian	0.77	0.01	0.76 - 0.78	**<0.001**

Other	0.66	0.01	0.63 - 0.68	**<0.001**
Mixed	0.84	0.02	0.81 - 0.87	**<0.001**
Parent or legal guardian to a 16-year-old or younger-Yes (REF= No)	0.73	0.00	0.72 - 0.73	**<0.001**
Carer-Yes (REF= No)	1.32	0.01	1.3 - 1.33	**<0.001**
Deprivation quintile (REF: 1- Most deprived)				
2	1.18	0.01	1.16 - 1.2	**<0.001**
3	1.35	0.01	1.33 - 1.37	**<0.001**
4	1.50	0.01	1.48 - 1.52	**<0.001**
5 (least deprived)	1.60	0.01	1.58 - 1.63	**<0.001**
Survey year (REF= 2018)				
2019	1.18	0.01	1.17 - 1.19	**<0.001**
2020	1.43	0.01	1.42 - 1.44	**<0.001**
General practice rurality-urban (REF= rural)	0.78	0.01	0.76 - 0.8	**<0.001**

Supplementary Table 6 Results of model 3 of the sensitivity analysis of the online appointment booking in the previous 12 months outcome for each of the categories of GPs based on the proportion of missing data in the practice

Predictors	**Model 3, Respondents from practices with 25% or less respondents with missing data n=474082, 1843 practices**		**Model 3, Respondents from practices with 26%-74% of respondents with missing data n=909152, 3361 practices**		**Model 3, Respondents from practices with 75% or more respondents with missing data. n=423815, 2052 practices**	
	Odds Ratios	**95% Confidence Interval**	**Odds Ratios**	**95% Confidence Interval**	**Odds Ratios**	**95% Confidence Interval**
Long term condition (REF= No)						
Long term condition- I don't know/ Can't say	1.16***	(1.10, 1.23)	1.14***	(1.10, 1.19)	1.16***	(1.10, 1.22)
Long term condition- Yes	1.78***	(1.75, 1.81)	1.69***	(1.67, 1.72)	1.49***	(1.46, 1.53)
Taking five or more medication on a regular basis-Yes (REF= No)	1.19***	(1.17, 1.22)	1.20***	(1.18, 1.22)	1.20***	(1.17, 1.23)
Deafness or hearing loss-Yes (REF= No)	1.15***	(1.11, 1.19)	1.12***	(1.09, 1.14)	1.12***	(1.08, 1.16)
Gender-Male (REF= Female)	0.88***	(0.86, 0.89)	0.88***	(0.87, 0.89)	0.91***	(0.89, 0.93)
Age (REF: 85+)						

Predictors	**Model 3, Respondents from practices with 25% or less respondents with missing data n=474082, 1843 practices**		**Model 3, Respondents from practices with 26%-74% of respondents with missing data n=909152, 3361 practices**		**Model 3, Respondents from practices with 75% or more respondents with missing data. n=423815, 2052 practices**	
	Odds Ratios	**95% Confidence Interval**	**Odds Ratios**	**95% Confidence Interval**	**Odds Ratios**	**95% Confidence Interval**
16-24	3.39***	(3.14, 3.66)	3.76***	(3.55, 3.98)	3.50***	(3.21, 3.82)
25-34	4.69***	(4.37, 5.03)	5.17***	(4.91, 5.45)	4.66***	(4.30, 5.06)
35-44	4.63***	(4.32, 4.96)	5.13***	(4.87, 5.40)	4.46***	(4.11, 4.83)
45-54	4.28***	(4.01, 4.57)	4.51***	(4.29, 4.74)	3.75***	(3.46, 4.06)
55-64	3.80***	(3.56, 4.05)	3.94***	(3.75, 4.13)	3.07***	(2.84, 3.32)
65-74	3.27***	(3.07, 3.49)	3.32***	(3.16, 3.48)	2.35***	(2.18, 2.54)
75-84	1.81***	(1.69, 1.93)	1.83***	(1.74, 1.93)	1.43***	(1.32, 1.55)
Ethnicity (REF: White)						
Black	0.75***	(0.69, 0.81)	0.83***	(0.79, 0.87)	0.87***	(0.83, 0.90)
Asian	1.04	(1.00, 1.09)	1.10***	(1.07, 1.14)	1.14***	(1.10, 1.17)
Other	0.86**	(0.79, 0.95)	0.92**	(0.87, 0.98)	1.01	(0.96, 1.06)
Mixed	1.01	(0.93, 1.10)	1.01	(0.95, 1.07)	1.09**	(1.02, 1.16)
Parent or legal guardian to a 16-year-old or younger-Yes (REF= No)	0.91***	(0.89, 0.93)	0.90***	(0.88, 0.92)	0.96***	(0.93, 0.98)
Carer-Yes (REF= No)	1.11***	(1.09, 1.13)	1.15***	(1.13, 1.17)	1.17***	(1.14, 1.19)
Deprivation quintile (REF: 1-Most deprived)						
2	1.15***	(1.11, 1.20)	1.14***	(1.12, 1.17)	1.16***	(1.13, 1.19)

Predictors	**Model 3, Respondents from practices with 25% or less respondents with missing data n=474082, 1843 practices**		**Model 3, Respondents from practices with 26%-74% of respondents with missing data n=909152, 3361 practices**		**Model 3, Respondents from practices with 75% or more respondents with missing data. n=423815, 2052 practices**	
	Odds Ratios	**95% Confidence Interval**	**Odds Ratios**	**95% Confidence Interval**	**Odds Ratios**	**95% Confidence Interval**
3	1.23***	(1.19, 1.28)	1.29***	(1.26, 1.32)	1.27***	(1.23, 1.30)
4	1.38***	(1.33, 1.44)	1.40***	(1.37, 1.43)	1.36***	(1.31, 1.41)
5 (least deprived)	1.54***	(1.48, 1.60)	1.52***	(1.49, 1.56)	1.53***	(1.46, 1.60)
Survey year (REF= 2018)						
2019	1.16***	(1.14, 1.18)	1.18***	(1.17, 1.20)	1.25***	(1.22, 1.28)
2020	1.46***	(1.43, 1.49)	1.52***	(1.50, 1.54)	1.61***	(1.57, 1.65)
General practice rurality-Urban (REF= Rural)	1.22***	(1.10, 1.23)	1.11***	(1.10, 1.19)	1.10	(0.97, 1.24)
Model summary						
Interclass correlation coefficient (ICC)	0.13		0.12		0.13	

* p-value= 0.05, ** p-value= ≤ 0.01, *** p-value= ≤ 0.001

Supplementary Table 7 Results of model 3 of the sensitivity analysis of the online repeat prescription ordering in the previous 12 months outcome for each of the categories of GPs based on the proportion of missing data in the practice

Predictors	**Model 3, respondents from practices with 25% or less respondents with missing data n=474082, 1843 practices**		**Model 3, respondents from practices with 26%-74% of respondents with missing data n=909152, 3361 practices**		**Model 3, respondents from practices with 75% or more respondents with missing data. n=423815, 2052 practices**	
	Odds Ratios	**95% Confidence Interval**	**Odds Ratios**	**95% Confidence Interval**	**Odds Ratios**	**95% Confidence Interval**
Long term condition (REF= No)						
Long term condition- I don't know/ Can't say	1.25***	(1.18, 1.32)	1.25***	(1.20, 1.30)	1.24***	(1.17, 1.31)
Long term condition- Yes	2.71***	(2.66, 2.75)	2.56***	(2.52, 2.59)	2.42***	(2.37, 2.47)
Taking five or more medication on a regular basis- Yes (REF= No)	1.26***	(1.24, 1.29)	1.26***	(1.24, 1.28)	1.29***	(1.26, 1.32)
Deafness or hearing loss-Yes (REF= No)	1.02	(1.00, 1.05)	1.02	(1.00, 1.04)	1.01	(0.98, 1.04)
Gender-Male (REF= Female)	0.96***	(0.94, 0.97)	0.96***	(0.95, 0.97)	0.98**	(0.96, 1.00)
Age (REF: 85+)						
16-24	1.64***	(1.53, 1.75)	1.76***	(1.67, 1.85)	1.62***	(1.50, 1.76)
25-34	2.16***	(2.04, 2.29)	2.22***	(2.13, 2.32)	1.98***	(1.85, 2.13)
35-44	2.67***	(2.52, 2.82)	2.82***	(2.70, 2.94)	2.37***	(2.21, 2.54)
45-54	3.25***	(3.09, 3.42)	3.29***	(3.16, 3.42)	2.82***	(2.65, 3.01)
55-64	3.35***	(3.18, 3.52)	3.43***	(3.31, 3.56)	2.81***	(2.64, 3.00)
65-74	3.11***	(2.97, 3.27)	3.15***	(3.03, 3.27)	2.48***	(2.33, 2.64)
75-84	1.73***	(1.65, 1.82)	1.75***	(1.68, 1.82)	1.43***	(1.34, 1.53)
Ethnicity (REF: White)						

Predictors	**Model 3, respondents from practices with 25% or less respondents with missing data n=474082, 1843 practices**		**Model 3, respondents from practices with 26%-74% of respondents with missing data n=909152, 3361 practices**		**Model 3, respondents from practices with 75% or more respondents with missing data. n=423815, 2052 practices**	
	Odds Ratios	**95% Confidence Interval**	**Odds Ratios**	**95% Confidence Interval**	**Odds Ratios**	**95% Confidence Interval**
Black	0.77***	(0.71, 0.84)	0.73***	(0.70, 0.77)	0.81***	(0.77, 0.84)
Asian	0.88***	(0.84, 0.92)	0.94***	(0.91, 0.97)	1.01	(0.98, 1.04)
Other	0.79***	(0.71, 0.87)	0.76***	(0.72, 0.81)	0.82***	(0.77, 0.86)
Mixed	0.96	(0.89, 1.05)	0.98	(0.93, 1.05)	0.99	(0.92, 1.07)
Parent or legal guardian to a 16 year old or younger-Yes (REF= No)	0.93***	(0.91, 0.96)	0.94***	(0.92, 0.96)	0.99	(0.96, 1.02)
Carer-Yes (REF= No)	1.13***	(1.11, 1.16)	1.15***	(1.14, 1.17)	1.19***	(1.17, 1.22)
Deprivation quintile (REF: 1-Most deprived)						
2	1.21***	(1.17, 1.26)	1.22***	(1.19, 1.25)	1.22***	(1.19, 1.26)
3	1.37***	(1.32, 1.42)	1.43***	(1.40, 1.46)	1.43***	(1.39, 1.47)
4	1.54***	(1.48, 1.59)	1.59***	(1.55, 1.62)	1.67***	(1.62, 1.73)
5 (least deprived)	1.65***	(1.59, 1.71)	1.74***	(1.70, 1.78)	1.89***	(1.82, 1.97)
Survey year (REF= 2018)						
2019	1.16***	(1.13, 1.18)	1.17***	(1.15, 1.19)	1.26***	(1.24, 1.29)
2020	1.40***	(1.38, 1.43)	1.46***	(1.44, 1.48)	1.54***	(1.51, 1.58)
General practice rurality-Urban (REF= Rural)	0.94**	(0.89, 0.99)	0.90***	(0.87, 0.94)	0.97	(0.88, 1.07)
Model summary						
Interclass correlation coefficient (ICC)	0.07		0.07		0.08	

* p-value= 0.05, ** p-value= ≤ 0.01, *** p-value= ≤ 0.001