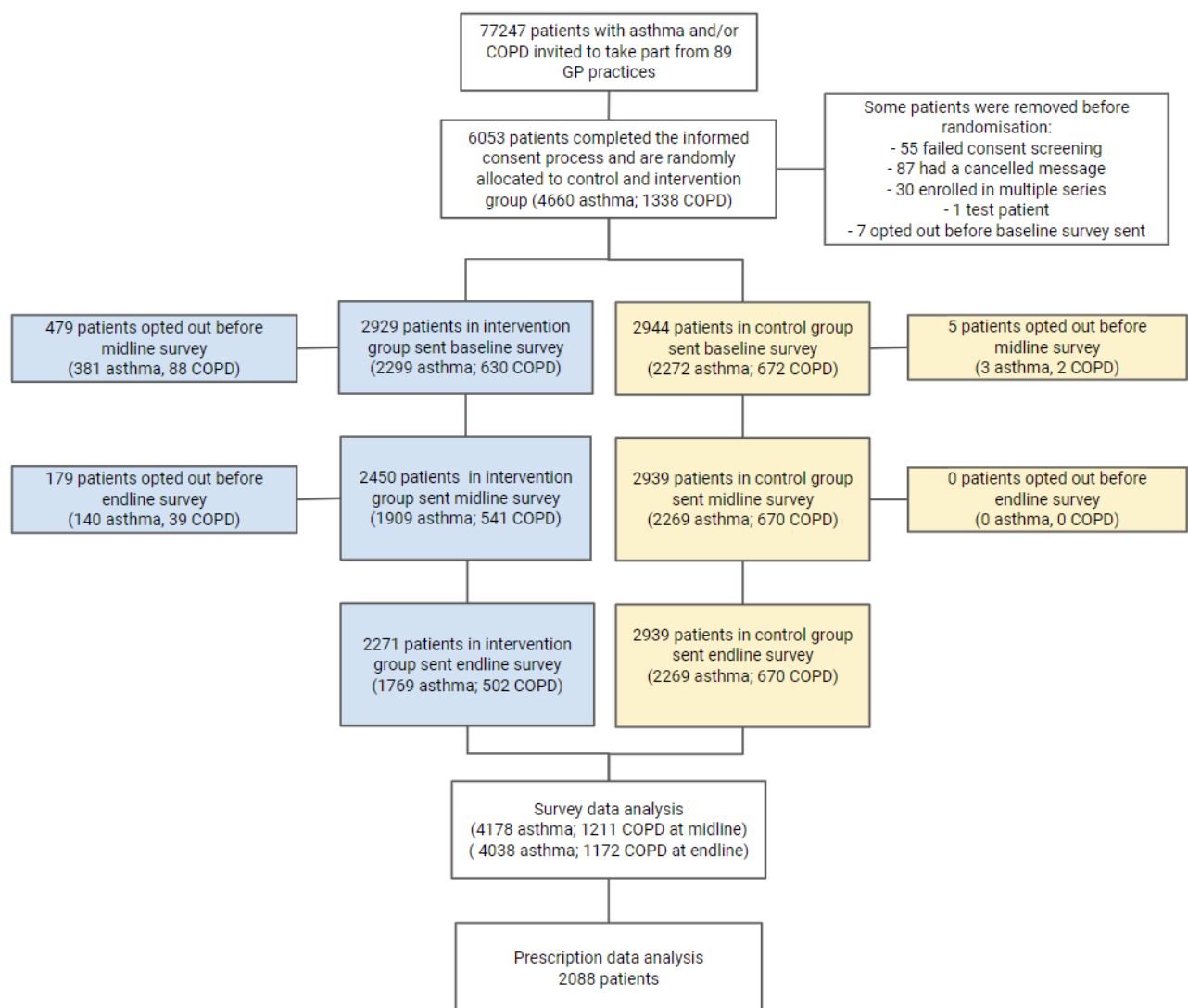


# A research study to explore the impact of GP support via text messages to patients with asthma and/or chronic obstructive pulmonary disease - 10376144

Basic Results Summary, November 2023

## Participant Flow



## Baseline Characteristics

Table 1: Age buckets of all patients that completed the baseline survey

Age Bucket	18-24	25-34	35-44	45-54	55-64	65-74	75+
Number of Patients in Age Bucket	125	417	596	819	892	1418	808

Table 2: Age buckets of asthma patients that completed the baseline survey

Age Bucket	18-24	25-34	35-44	45-54	55-64	65-74	75+
Number of Patients in Age Bucket	125	416	585	819	1025	930	405

Table 3: Age buckets of COPD patients that completed the baseline survey

Age Bucket	18-24	25-34	35-44	45-54	55-64	65-74	75+
Number of Patients in Age Bucket	0	1	11	73	267	488	403

Table 4: Gender of all patients that completed the baseline survey

Gender	Male	Female
Number of Patient's Gender	2181	3367

Table 5: Gender of all asthma patients that completed the baseline survey

Gender	Male	Female
Number of Patient's Gender	1468	2837

Table 6: Gender of all COPD patients that completed the baseline survey

Gender	Male	Female
Number of Patient's Gender	713	530

## Outcome Measures

**Table 7: Asthma Patients MARS5 Scores (primary outcome measures)**

Control Cohort	Midline/Endline	Control Score	Treatment Score	p value	Number of control samples	Number of treatment samples
all patients	midline	21.51577	22.54489	$5.16 \cdot 10^{-14}$	1871	1448
all patients	endline	21.53692	22.32799	$1.25 \cdot 10^{-7}$	1801	1247
poorly controlled	midline	21.24836	22.1803	$5.71 \cdot 10^{-6}$	761	599
poorly controlled	endline	21.38592	22.26602	$6.44 \cdot 10^{-5}$	710	515

**Table 8: COPD Patients MARS5 Scores (primary outcome measures)**

Control Cohort	Midline/Endline	Control Score	Treatment Score	p value	Number of control samples	Number of treatment samples
all patients	midline	22.37285	23.1982	$9.97 \cdot 10^{-5}$	582	444
all patients	endline	22.47203	22.93154	0.0404	572	409
poorly controlled	midline	22.11027	22.83178	0.0161	263	214
poorly controlled	endline	22.19368	22.77228	0.0465	253	202

**Table 9: Asthma Secondary Outcomes**

Outcome	Control Cohort	Midline/Endline	Control Score	Treatment Score	p value	Number of control samples	Number of treatment samples
<b>Asthma Control Test Score</b>	all patients	midline	19.991	20.617	$4.36 \cdot 10^{-5}$	1871	1448
<b>Asthma Control Test Score</b>	all patients	endline	20.159	20.657	0.00214	1801	1247
<b>Asthma Control Test Score</b>	poorly controlled	midline	16.957	17.891	0.00016	761	599
<b>Asthma Control Test Score</b>	poorly controlled	endline	17.135	18.249	$3.49 \cdot 10^{-5}$	710	515
<b>Proportion of</b>	all	midline	0.011758	0.006215	0.143084	1871	1448

<b>patients reporting 1+ Hospital stays</b>	patients						
<b>Proportion of patients reporting 1+ Hospital stays</b>	all patients	endline	0.01055	0.008019	0.605	1801	1247
<b>Proportion of patients reporting 1+ Emergency GP appointments</b>	all patients	midline	0.080171	0.080801	0.998	1871	1448
<b>Proportion of patients reporting 1+ Emergency GP appointments</b>	all patients	endline	0.060522	0.056937	0.737	1801	1247
<b>Proportion of patients reporting 1+ 111 calls</b>	all patients	midline	0.025655	0.017956	0.170	1871	1448
<b>Proportion of patients reporting 1+ 111 calls</b>	all patients	endline	0.02332	0.018444	0.430	1801	1247
<b>Proportion of patients reporting 1+ Urgent care visits</b>	all patients	midline	0.019776	0.024862	0.383	1871	1448
<b>Proportion of patients reporting 1+ Urgent care visits</b>	all patients	endline	0.014436	0.012831	0.829	1801	1247
<b>Proportion of patients reporting 1+ A&amp;E visits</b>	all patients	midline	0.018172	0.019337	0.908	1871	1448
<b>Proportion of patients reporting 1+ A&amp;E visits</b>	all patients	endline	0.016102	0.013633	0.690	1801	1247

**Table 10: COPD Secondary Outcomes**

<b>Outcome</b>	<b>Control Cohort</b>	<b>Midline/ Endline</b>	<b>Control Score</b>	<b>Treatment Score</b>	<b>p value</b>	<b>Number of control samples</b>	<b>Number of treatment samples</b>
<b>Question CAT Score</b>	all patients	midline	19.156	19.097	0.917	582	444
<b>Question CAT Score</b>	all patients	endline	19.051	18.919	0.824	572	409
<b>Question CAT Score</b>	poorly controlled	midline	26.281	25.505	0.19	263	214
<b>Question CAT Score</b>	poorly controlled	endline	26.103	25.203	0.155	253	202
<b>Proportion of patients reporting 1+ Hospital stays</b>	all patients	midline	0.030928	0.047297	0.233	582	444
<b>Proportion of patients reporting 1+ Hospital stays</b>	all patients	endline	0.02972	0.022005	0.589	572	409
<b>Proportion of patients reporting 1+ Emergency GP appointments</b>	all patients	midline	0.166667	0.146396	0.426	582	444
<b>Proportion of patients reporting 1+ Emergency GP appointments</b>	all patients	endline	0.115385	0.134474	0.425	572	409
<b>Proportion of patients reporting 1+ 111 calls</b>	all patients	midline	0.058419	0.047297	0.520	582	444
<b>Proportion of patients reporting 1+ 111 calls</b>	all patients	endline	0.033217	0.056235	0.110	572	409
<b>Proportion of patients reporting 1+</b>	all patients	midline	0.042955	0.038288	0.830	582	444

<b>Urgent care visits</b>							
<b>Proportion of patients reporting 1+ Urgent care visits</b>	all patients	endline	0.022727	0.026895	0.836	572	409
<b>Proportion of patients reporting 1+ A&amp;E visits</b>	all patients	midline	0.042955	0.033784	0.556	582	444
<b>Proportion of patients reporting 1+ A&amp;E visits</b>	all patients	endline	0.034965	0.031785	0.926	572	409

**Table 11: Prescription metric (secondary outcome for all patients during endline period)**

<b>Midline/Endline<sup>1</sup></b>	<b>Control Score</b>	<b>Treatment Score</b>	<b>p value</b>	<b>number control samples</b>	<b>num treatment samples</b>
midline	32.44	34.23	0.0323	612	468
endline	46.27	48.94	0.0117	1503	1100

## Adverse Events

There were no adverse events associated with this study.

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<sup>1</sup> Note that we could only pull prescriptions from medical records at the end of the study period and so the control and treatment cohort have different sample sizes since we could not pull data from opted out patients. Moreover, the prescription metric was constructed so that the midline value includes patients with a prescription interval both within 3 months before and 3 months after the start of the intervention. Whereas the endline metric was constructed with patients with a prescription interval both within 6 months before and 6 months after the start of the intervention. Consequently the endline metric has a larger sample size than the midline for this metric.