

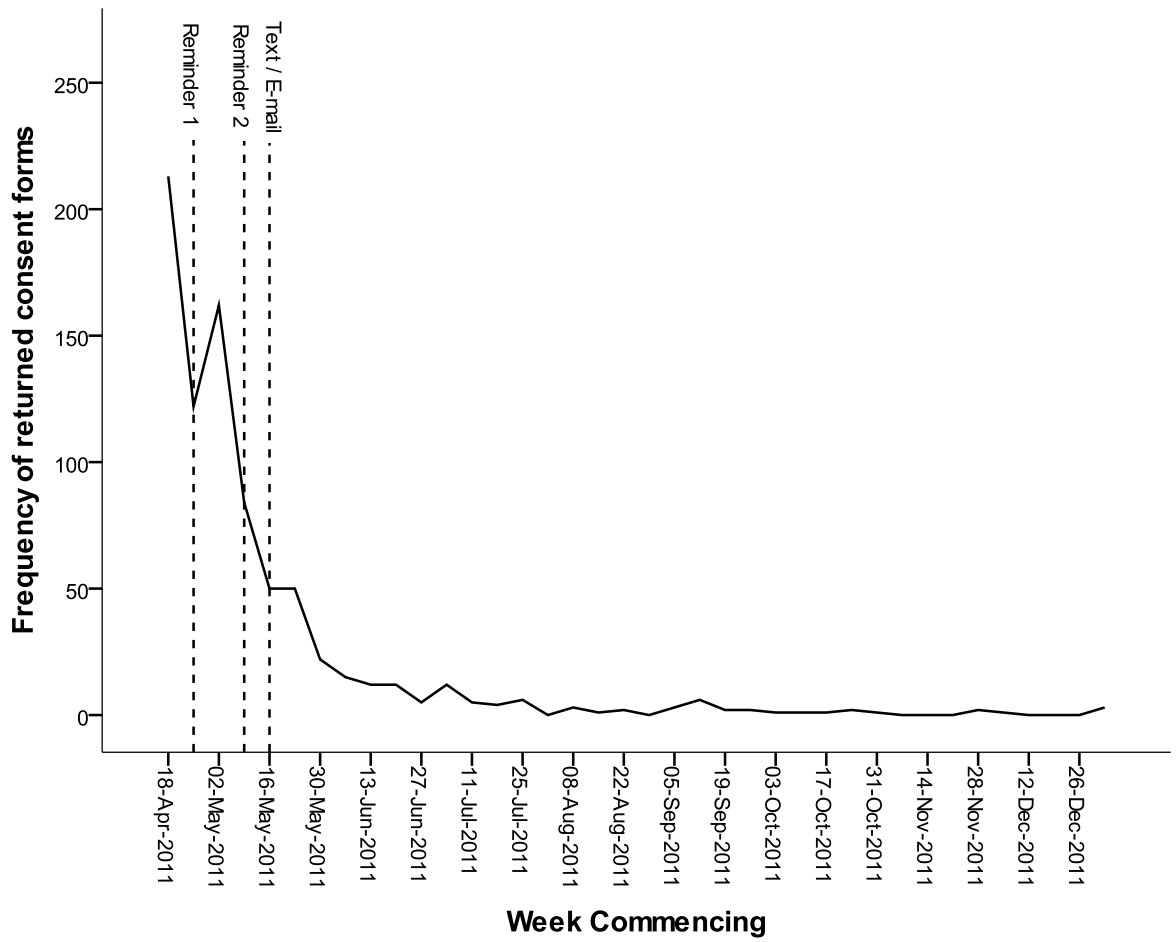
**Information design and telephone reminders improved response rates in a cohort study: evidence from a randomised controlled trial.**

**Supplementary (Web Only) Materials.**

*Response by Socio-Demographic Characteristic*

The response rates by category values were: sex (46.3% from females, 36.3% from males), ethnicity (39.8% from white participants, 34.6% from non-white participants), participation history (60.8% from those with a very high rate of historical participation, 25.3% from those with lower rates), educational attainment (46.3% from participants with five or more Grade A\*-C KS4 results, 23.4% from those with less than five A\*-C grades), low household income (33.0% from households eligible to receive FSM and 39.9% from households with income above the FSM threshold). It is important to note the relatively small sample sizes where the responding participant was from a low income household or was non-white.

Supplementary Figure 1: Response to the PEARL trial mailings, by time elapsed from the mailing of the information pack intervention.



Supplementary Table 1. Response rates following the non-intervention reminder postcard, by prior-notification and information pack interventions.

Intervention	%Response Rate (n/n)		% Difference in Response	95% CI	P-value
	Intervention	Control			
	Group	Group			
1. Prior-notification intervention	18.1* (158/872)	16.9* (146/865)	1.2	-2.3, 4.8	0.5
2. Information Pack Intervention	16.2* (139/858)	18.8* (165/879)	-2.6	-6.1, 0.1	0.2

\* ITT approach (Figure 1)

Supplementary Table 2: A comparison of socio-demographic characteristics between a national sample, the ALSPAC enrolled sample and the PEARL RCT sample and PEARL RCT responding sample

		National comparable sample <sup>a</sup>	ALSPAC enrolled sample <sup>b</sup>	PEARL RCT analysable sample	PEARL RCT responders
Characteristic	Category				
Child sex	Female	871,375/1,770,654 (49.2%)	5,470/11,008 (49.7%)	986/1,950 <sup>h</sup> (50.6%)	456/806 <sup>m</sup> (56.6%)
Child ethnicity	White	1,508,926/1,744,429 (86.5%)	10,505/10,933 (96.1%)	1,428/1,561 <sup>k</sup> (91.5%)	568/614 <sup>n</sup> (92.5%)
Participation History <sup>c</sup>	Very High	n/a	3,310/14,806 (22.4%)	880/1,950 <sup>h</sup> (45.1%)	535/806 <sup>m</sup> (66.4%)
Educational Attainment <sup>e</sup>	KS4 >= 5 grades	993,079/1,770,673 (56.1%)	6,493/10,805 (60.1%)	1,098/1,569 <sup>k</sup> (70.0%)	508/618 <sup>n</sup> (82.2%)
	A*-C				
Low household income <sup>f</sup>	Eligible for FSM	218,033/1,745,353 (12.5%)	682/10,959 (6.2%)	91/1,561 <sup>k</sup> (5.8%)	30/616 <sup>n</sup> (4.9%)
Tertile of IMD <sup>g</sup>	1 (low)			527/1,950 <sup>h</sup> (27.0%)	157/806 <sup>m</sup> (19.5%)
	2	n/a	n/a	715/1,950 <sup>h</sup> (36.7%)	330/806 <sup>m</sup> (40.9%)
	3 (High)			708/1,950 <sup>h</sup> (36.3%)	319/806 <sup>m</sup> (39.6%)

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<sup>a</sup> All pupils from the National Pupil Database (NPD) Key Stage 4 (KS4) English Government Maintained Establishments (GME) sample who are in the three academic year groups which include ALSPAC participants.

<sup>b</sup> All pupils, from English GMEs, who are from families that have enrolled in ALSPAC.

<sup>c</sup> 'Very High' indicates a participation history score of  $\geq 90$ .

<sup>e</sup> Academic attainment at the age of 16 years (achieving five or more assessments classed as grades A\* to C, where A\* signifies the highest level of attainment).

<sup>f</sup> Eligible for 'free school meals' (FSM), indicating a joint parental income of  $\leq \pounds 16\,000$ .

<sup>g</sup> Tertiles of IMD 2010, where 1 indicates the most deprived neighbourhoods (tertiles were set nationally and then mapped to ALSPAC participants using residential postcode)

<sup>h</sup> Denominator: the PEARL analysable sample

<sup>k</sup> Denominator: cases in the PEARL analysable sample, from English GMEs, with a valid record

<sup>m</sup> Denominator: PEARL RCT respondents

<sup>n</sup> Denominator: PEARL RCT respondents, from English GMEs, with a valid record

**Supplementary Table 3: Sub-group analysis: response rates by intervention and socio-demographic characteristics.**

Characteristic	Category	Prior-notification			Information Pack			Reminder		
		Intervention*			Intervention*			Intervention†		
		% response			% response			% response		
		Prior-Notification Postcard	No Prior-Notification Mailing	P‡	Designed Pack	Standard Pack	P‡	Phone Reminder	Postcard Reminder	P‡
Sex	Male	8.5	8.3	0.9	9.77	7.04	0.7	21.3	13.6	0.3
	Female	13.3	13.4		14.69	12.07		25.7	20.8	
Ethnicity <sup>§</sup>	White	11.7	11.5	0.9	12.9	10.2	0.3	21.1	14.6	0.9
	Non-White	7.0	6.5		10.3	4.0		23.5	15.8	
Tertile of Indices	Ttile 1 (low)	9.2	6.4	0.4	9.2	6.4	0.8	18.7	8.0	0.09
Multiple Deprivation	Ttile 2	12.3	12.3		13.2	11.4		25.3	22.1	
(IMD) 2007	Ttile 3 (high)	10.9	12.9		13.6	10.2		25.7	19.3	

Free School Meals (FSM)	Receives FSM	16.3	11.9	0.5	13.2	15.1	0.4	13.9	11.8	0.7
	No FSM	11.0	11.2		12.8	9.4		22.0	15.1	
# Key Stage 4 Grades A*-C	Less than Five	6.8	6.3	0.9	6.8	6.4	0.5	16.0	4.3	0.004
	Greater or Equal to Five	13.3	13.1		15.3	11.1		24.2	20.7	
ALSPAC Participation History Score	<90	6.5	6.2	0.7	6.4	6.3	0.2	15.7	9.0	0.2
	>=90	16.2	16.7		19.3	13.6		37.5	30.6	

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\* ITT approach(Figure 1)

† mITT approach (Figure 2)

‡ Test for interaction

§ The PEARL RCT sample has relatively small numbers of non-white participants (total n=135)

**Supplementary Table 4: Consent rates by trial intervention and consent category**

<b>Consent</b>	<b>Prior-notification</b>			<b>Information Pack</b>			<b>Reminder</b>		
	<b>Intervention*</b>			<b>Intervention*</b>			<b>Intervention†</b>		
	<i>% consented (n/n)</i>			<i>% consented (n/n)</i>			<i>% consented (n/n)</i>		
<b>Category</b>	<i>Prior-notification</i>	<i>No Prior-Notification</i>	<i>P‡</i>	<i>Designed</i>	<i>Standard</i>	<i>P‡</i>	<i>Phone</i>	<i>Postcard</i>	<i>P‡</i>
	<i>Postcard</i>	<i>Mailing</i>		<i>Pack</i>	<i>Pack</i>		<i>Reminder</i>	<i>Reminder</i>	
Participation in ALSPAC	95.3 (102/107)	98.1 (104/106)	0.6	96.7 (116/120)	96.8 (90/93)	0.6	91.5 (151/165)	96.0 (119/124)	0.3
Linkage to Health Records	92.5 (99/107)	97.2 (103/106)	0.2	96.7 (116/120)	92.5 (86/93)	0.2	87.9 (145/165)	90.3 (112/124)	0.6
Linkage to School Records	93.5 (100/107)	98.1 (104/106)	0.2	96.7 (116/120)	94.6 (88/93)	0.5	87.9 (145/165)	91.9 (114/124)	0.3
Linkage to Further Education Records	92.5 (99/107)	97.2 (103/106)	0.2	95.8 (115/120)	93.6 (87/93)	0.5	87.9 (145/165)	91.9 (114/124)	0.3



Linkage to Higher Education Records	95.5 (99/107)	96.2 (102/106)	0.2	94.2 (113/120)	94.6 (88/93)	1.0	86.7 (143/165)	91.9 (114/124)	0.3
Linkage to Financial and Benefit Records	86.0 (92/107)	90.6 (96/106)	0.1	89.2 (107/120)	87.1 (81/93)	0.8	80.0 (132/165)	80.7 (100/124)	1.0
Linkage to Criminal Records	93.5 (100/107)	94.3 (100/106)	0.4	94.2 (113/120)	93.6 (87/93)	1.0	81.8 (135/165)	88.7 (110/124)	0.2

\* ITT approach (see Figure 1 in manuscript)

† mITT approach (see Figure 1 in manuscript)

‡ Fishers exact test