

# Health Economics Guidance for Undertaking Randomised SWATs of Recruitment and Retention Strategies

Supporting the conduct of high-priority randomised SWATs of participant recruitment and retention strategies

# How to cite this guidance

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# Introduction: the PRESS project

This guidance was developed as part of the <u>PRESS project</u><sup>1</sup> (Protocol and resources development for prioritised recruitment and retention strategies), co-funded by the UK Medical Research Council - National Institute for Health Research Trial Methodology Research Partnership (MRC-NIHR TMRP) and the Health Research Board Trials Methodology Research Network (HRB-TMRN) Ireland. PRESS aimed to develop template SWAT protocols and associated resources to support researchers to replicate high-priority SWATs across multiple trials to strengthen the evidence-base for recruiting and retaining trial participants.

### About this guidance

This guidance provides a clear overview of the costs researchers should consider when undertaking a <u>Trial Forge-prioritised SWAT</u><sup>2</sup>, focusing on randomised SWATs of recruitment and retention strategies. It also offers advice on summarising and reporting SWAT-related costs.

Despite the significant costs of poor recruitment and retention in trials, the economic aspects of SWATs have received little attention<sup>3,4</sup>. Identifying effective recruitment and retention strategies is important, but it is equally crucial to transparently record costs and benefits, to determine which ones are cost-effective<sup>3</sup>. Additionally, new guidelines for reporting randomised SWAT results require the inclusion of associated costs<sup>5</sup>. More robust evidence on the effectiveness *and cost-effectiveness* of recruitment and retention strategies will support better-informed decisions about which recruitment and retention strategies to use.

This guidance should be used in conjunction with the following documents:

- List of priority recruitment and retention SWATs
- PRESS Template Recruitment and Retention SWAT Protocols
- PRESS Statistical Analysis Plan Templates

# Guidance for costing for trial teams to embed a randomised recruitment or retention SWAT in grant applications

- We strongly encourage researchers to replicate the prioritised recruitment and retention strategies, the protocols of which can be found <u>here</u>.
- Researchers undertaking SWATs are encouraged to report unit costs related to the strategies (and comparators) under evaluation. Such costs should be reported as detailed and transparently as possible. Unit costs should also reflect the recruitment/retention efforts undertaken by the trial team in each intervention group where possible. If a strategy is more or less effective than its comparator, it may lead to lower or higher costs, such as expenses for follow-ups with non-responders (e.g., sending extra trial materials or reminders).
- Unit costs are defined as the costs incurred for each participant within a SWAT.
- Unit costs are likely to vary by intervention group (SWAT strategy versus comparator). Moreover, they may vary according to the characteristics of a strategy. Each recruitment/retention strategy (and comparator) is likely to involve different types of costs, such as:
  - o Intervention development costs
  - Printing costs of trial materials
  - Postage costs of trial materials
  - Production costs
  - SWAT data collection and other administration costs
  - Communication costs (e.g. landline charges)
  - Costs of financial incentives
  - o Training costs
  - o Travel costs
  - Financial reimbursement of PPI contributors
  - Other overhead costs
- Therefore, trial teams should assess which of the above cost components they expect to incur for each recruitment and/or retention strategy (and comparator) evaluated in their SWAT.

- To estimate the unit costs of the recruitment/retention strategy and the comparator, SWAT teams should estimate the total costs for each appropriate cost component, then aggregate all relevant components for each intervention and divide them by the number of participants allocated to each intervention group.
- In a grant application, trial teams should report the relevant cost components they
  regard to be applicable to the recruitment or retention strategy (and the comparator)
  being tested.
- Any unit costs for costing figures which are available in advance should be mentioned in grant applications, e.g. pay scale of member of staff, Royal Mail shipping costs, printing costs. This will ensure that the grant amount requested is more accurate.
  - For staff-related cost components, please use the midpoint of their pay scale (in hourly rates).
- Tables 1 and 2 outline the potential cost types associated with recruitment and retention strategies for each prioritised SWAT. This list is for illustrative purposes only and is not exhaustive. Cost components and calculations should be tailored to the specific recruitment or retention strategy (and comparator) tested in the SWAT.

#### Table 1: Potential costs for prioritised recruitment SWATs

SWAT overarching Question	SWAT Protocol question for replication	Costs to consider
What is the most effective way of involving patients and the public in trials to improve participant recruitment?	The effectiveness and cost- effectiveness of a trial participant biography on participant recruitment rates (BIOREC)	<ul> <li>Intervention development costs (e.g., time to create biography; review biography drafts and finalise biographies; in terms of staff time in hours; report pay-scale and hourly rate)</li> <li>Training costs</li> <li>Financial reimbursement of PPI contributors (hourly reimbursement X hours compensable)</li> <li>Travel costs (miles travelled for reaching PPI contributors x reimbursable figure per mile travelled)</li> <li>SWAT data collection and other administration costs (e.g. staff time to prepare mailings; staff time spent on e-mail communication/telephone calls in terms of staff time in hours; report pay-scale and hourly rate)</li> <li>Communication costs (record total time of telephone calls, then multiply it by the corresponding landline charge per minute)</li> <li>Postage costs of biographies and other trial materials (number of biographies/other trial materials shipped X Royal Mail postage cost of one biography/other trial material)</li> <li>Printing costs of biographies and other trial materials (number of biographies/other trial materials printed X printing cost of one biography/other trial material)</li> </ul>

What is the most	Does a behavioural theory-	Intervention development costs (e.g. time to create behavioural theory-informed trial or
effective way of	informed trial invitation	standard invitation letter: review invitation letter drafts and finalise invitation letters: in
sending potential	letter increase recruitment	terms of staff time in hours: report pay-scale and hourly rate)
trial participants	rates, compared to a	Training costs
invitation letters by	standard letter? (INVITE)	Travel costs (miles travelled for reaching PPI contributors x reimbursable figure per mile
post to optimise		travelled)
recruitment rates?		<ul> <li>Financial reimbursement of PPI contributors (hourly reimbursement X hours compensable)</li> </ul>
		• SWAT data collection and other administration costs (e.g. staff time to prepare mailings:
		staff time spent on e-mail communication/telephone calls in terms of staff time in hours:
		report pay-scale and hourly rate)
		<ul> <li>Communication costs (record total time of telephone calls, then multiply it by the</li> </ul>
		corresponding landline charge per minute)
		<ul> <li>Postage costs of behavioural theory-informed trial invitation letters and standard invitation</li> </ul>
		letters (number of behavioural theory-informed/standard trial invitation letters shipped X
		Royal Mail postage cost of one behavioural theory-informed/standard trial invitation letter)
		Printing costs of behavioural theory-informed trial invitation letters and standard invitation
		letters (number of behavioural theory-informed/standard trial invitation letters printed X
		printing cost of one behavioural theory-informed/standard trial invitation letter)
What is the most	Do cash-based financial	Cost of financial incentive (cash/voucher/charity donation other)
effective way to use	incentives increase	<ul> <li>SWAT data collection and other administration costs (e.g. staff time to prepare mailings:</li> </ul>
financial incentives	recruitment of people	staff time spent on e-mail communication/telephone calls in terms of staff time in hours:
to support	experiencing	report nav-scale and hourly rate)
recruitment?	socioeconomic	<ul> <li>Communication costs (record total time of telephone calls, then multiply it by the</li> </ul>
	disadvantage compared to	corresponding landline charge per minute)
	vouchers with the same	<ul> <li>Postage costs of trial materials (number of trial materials shinned X Royal Mail nostage cost</li> </ul>
	face value? (CASH)	of one trial material)
		<ul> <li>Printing costs of trial materials (number of trial materials printed X printing cost of one trial</li> </ul>
		material)
What is the most effective way to use financial incentives to support recruitment?	Do cash-based financial incentives increase recruitment of people experiencing socioeconomic disadvantage compared to vouchers with the same face value? (CASH)	<ul> <li>Printing costs of behavioural theory-informed trial invitation letters and standard invitation letters (number of behavioural theory-informed/standard trial invitation letters printed X printing cost of one behavioural theory-informed/standard trial invitation letter)</li> <li>Cost of financial incentive (cash/voucher/charity donation other)</li> <li>SWAT data collection and other administration costs (e.g. staff time to prepare mailings; staff time spent on e-mail communication/telephone calls in terms of staff time in hours; report pay-scale and hourly rate)</li> <li>Communication costs (record total time of telephone calls, then multiply it by the corresponding landline charge per minute)</li> <li>Postage costs of trial materials (number of trial materials shipped X Royal Mail postage cost of one trial material)</li> <li>Printing costs of trial materials (number of trial materials printed X printing cost of one trial material)</li> </ul>

What are the most effective strategies	Do video(s) providing information about a trial	<ul> <li>Intervention development costs (e.g. time to develop the video (i.e. script, writing); edit versions of the video and finalise video; in terms of staff time in hours; report pay-scale</li> </ul>
to recruit	increase recruitment of	and hourly rate)
underserved groups?	particular under-served	• Overhead costs related to the production of the video (e.g. if NEW equipment is needed to
	groups important for the	be purchased for the video (do not include this item if equipment is already available);
	trial compared to written	hiring external photographers or services for sound design if applicable)
	information only? (VISUAL)	<ul> <li>Travel costs (miles travelled for reaching PPI contributors x reimbursable figure per mile travelled)</li> </ul>
		Training costs
		• Financial reimbursement of PPI contributors (hourly reimbursement X hours compensable)
		• SWAT data collection and other administration costs (e.g. staff time to prepare mailings;
		staff time spent on e-mail communication/telephone calls in terms of staff time in hours; report pay-scale and hourly rate)
		Communication costs (record total time of telephone calls, then multiply it by the
		corresponding landline charge per minute)
		• Postage costs of trial materials (number of trial materials shipped X Royal Mail postage cost
		of one trial material)
		<ul> <li>Printing costs of trial materials (number of trial materials printed X printing cost of one trial material)</li> </ul>

#### Table 2: Potential costs for prioritised retention SWATs

SWAT overarching Question	SWAT Protocol question for replication	Costs to consider
What is the most effective way of offering flexibility to support participant retention?	Does offering trial participants flexibility in follow-up visit location increase retention rates, compared to not offering flexibility? (FLEXI)	<ul> <li>Intervention development costs (e.g. time to set-up follow-up visit locations; monitor follow-up progress in different locations; in terms of staff time in hours; report pay-scale and hourly rate)</li> <li>Training costs</li> <li>Travel costs of SWAT participants and trial team members (miles travelled for visiting follow-up location x reimbursable figure per mile travelled)</li> <li>SWAT data collection and other administration costs (e.g. staff time to prepare mailings; staff time spent on e-mail communication/telephone calls in terms of staff time in hours; report pay-scale and hourly rate)</li> <li>Communication costs (record total time of telephone calls, then multiply it by the corresponding landline charge per minute)</li> <li>Postage costs of trial materials (number of trial materials shipped X Royal Mail postage cost of one trial material)</li> <li>Printing costs of trial materials (number of trial materials printed X printing cost of one trial material)</li> </ul>
What is the most effective way of involving patients and the public in trials to improve participant retention?	The effectiveness and cost- effectiveness of trial newsletters, co-produced with Patient and Public Involvement (PPI) partners, on participant retention rates (PPIRET)	<ul> <li>Intervention development costs (e.g. time to create newsletter; review newsletter drafts and finalise newsletter; in terms of staff time in hours; report pay-scale and hourly rate)</li> <li>Training costs</li> <li>Travel costs (miles travelled for reaching PPI contributors x reimbursable figure per mile travelled)</li> <li>Einancial reimbursement of PPI contributors (hourly reimbursement X hours)</li> </ul>
		compensable)

		<ul> <li>SWAT data collection and other administration costs (e.g. staff time to prepare mailings; staff time spent on e-mail communication/telephone calls in terms of staff time in hours; report pay-scale and hourly rate)</li> <li>Communication costs (record total time of telephone calls, then multiply it by the corresponding landline charge per minute)</li> <li>Postage costs of newsletters and other trial materials (number of newsletters/other trial materials shipped X Royal Mail postage cost of one newsletter/other trial material)</li> <li>Printing costs of newsletters and other trial materials (number of newsletters/other trial material)</li> </ul>
What is the most effective way of using participant reminders to support retention?	Do electronic (text message or email) reminders increase retention rates, compared to usual follow-up? (EPROMPT)	<ul> <li>Intervention development costs (e.g. time to create and send text message/ email reminders; review reminders' drafts and finalise reminders; in terms of staff time in hours; report pay-scale and hourly rate)</li> <li>SWAT data collection and other administration costs (e.g. staff time to prepare mailings; staff time spent on e-mail communication/telephone calls in terms of staff time in hours; report pay-scale and hourly rate)</li> <li>Communication costs (SMS charge per text message reminder sent; record total time of telephone calls, then multiply it by the corresponding landline charge per minute)</li> <li>Postage costs of other trial materials (number of other trial materials shipped X Royal Mail postage cost of one other trial material)</li> <li>Printing costs of other trial materials (number of other trial materials printed X printing cost of one other trial materials)</li> </ul>
What is the most effective way to use financial incentives to support retention?	Do monetary incentives increase retention compared to no monetary incentive? (MONCENTIVES)	<ul> <li>Cost of financial incentive (cash/voucher/charity donation other)</li> <li>SWAT data collection and other administration costs (e.g. staff time to prepare mailings; staff time spent on e-mail communication/telephone calls in terms of staff time in hours; report pay-scale and hourly rate)</li> <li>Communication costs (record total time of telephone calls, then multiply it by the corresponding landline charge per minute)</li> </ul>

	<ul> <li>Postage costs of trial materials (number of trial materials shipped X Royal Mail postage cost of one trial material)</li> <li>Printing costs of trial materials (number of trial materials printed X printing cost of one trial material)</li> </ul>
What is the most effective way of using routine data collection to support retention?Does using routinely- collected data (e.g., ONS/HES/GP/Hospital data) increase the retention of under-served groups, compared to using participant reported data? (SHORTQ)	<ul> <li>Intervention costs (e.g. time to collect routinely-collected data (such as applying for HES data); time to analyse routinely-collected data; in terms of staff time in hours; report pay-scale and hourly rate)</li> <li>Overhead costs related to the analysis of routinely collected data (e.g. ONS charging rates if specific data extraction is needed for analysis)</li> <li>Training costs</li> <li>SWAT data collection and other administration costs (e.g. staff time to prepare mailings; staff time spent on e-mail communication/telephone calls in terms of staff time in hours; report pay-scale and hourly rate)</li> <li>Communication costs (record total time of telephone calls, then multiply it by the corresponding landline charge per minute)</li> <li>Postage costs of trial materials related to participant reported data (number of trial materials shipped X Royal Mail postage cost of one trial material)</li> <li>Printing costs of trial materials related to participant reported data (number of trial materials related to participant reported data (number of trial materials related to participant reported data (number of trial materials related to participant reported data (number of trial materials related to participant reported data (number of trial materials shipped X Royal Mail postage cost of one trial material)</li> </ul>

# Guidance on assessing cost-effectiveness of SWATs

- Costs should be transparently reported with as much detail as possible.
- As part of an economic evaluation alongside SWATs and/or cost reporting, unit costs of each relevant type of costs should be estimated, and then aggregated in order to estimate the unit costs of each recruitment/retention strategy (and comparator).
- In this section, we present a hypothetical costing exercise for pens as a recruitment/retention strategy.
- To calculate unit costs for each cost component, divide the total cost for a given strategy (intervention and comparator) by the number of participants allocated to that strategy.

#### Table 3. Example of estimating postage unit costs

*For example*, if 500 SWAT participants received pens as a recruitment/retention strategy and 500 SWAT participants did not, with total postage costs of £800 for the pen group and £500 for the no pen group, the unit postage cost for each group would be calculated as follows:

- Unit postage cost (pen group): £800/ 500 participants = £1.60 per participant
- Unit postage cost (no pen group): £500/500 participants= £1.00 per participant
- When reporting unit costs for a particular strategy, aggregate the unit costs for all relevant types of costs (e.g. postage, printing, administration, etc.) specific to each intervention group.

#### Table 4. Example of estimating unit costs of pens and no pens

*For example,* if, in the pen group:

- Postage unit cost =£1.60 (as calculated above; it includes postage cost of one invitation letter/follow-up letter plus one pen, as well as the cost of one A4 envelope)
- Printing unit cost= £0.50 (printing cost of six A4 pages (black and white) related to invitation letters for recruitment/ follow-up letters for retention)
- Unit production cost of a pen= £0.30
- Administration costs= £0.20 (calculated as 5 hours X hourly pay of a Trial Support
   Officer at spine level 25 (+ employer national insurance contributions) divided by 500 participants allocated to pen group)

 Communication costs= £0.03 (calculated as landline charge per minute (£0.16) X 100 minutes divided by 500 participants allocated to pen group)

And in the no pen group:

- Postage unit cost = £1.00 (as calculated above; it includes postage cost of one invitation letter/ follow-up letter, as well as the cost of one A4 envelope)
- Printing unit cost= £0.50 (printing cost of 6 A4 pages (black and white) related to invitation letters for recruitment/ follow-up letters for retention)
- Administration costs= £0.24 (calculated as 6 hours X hourly pay of a Trial Support Officer at spine level 25 (+ employer national insurance contributions) divided by 500 participants allocated to no pen group)
- Communication costs= £0.04 (calculated as landline charge per minute (£0.16) X 110 minutes divided by 500 participants allocated to no pen group)

The unit cost of a pen would be:  $\pm 1.60 + \pm 0.50 + \pm 0.30 + \pm 0.20 + \pm 0.03 = \pm 2.63$ The unit cost of no pen would be:  $\pm 1.00 + \pm 0.50 + \pm 0.24 + \pm 0.04 = \pm 1.78$ 

 If SWAT participants in a given intervention group receive certain trial materials or interventions more than once, this should be reflected in the total costs of the affected cost components before unit costs are estimated. In the calculations above, it was assumed that participants received trial materials and pens only once during the hypothetical recruitment/retention SWAT. Alternatively, the postage, printing and pen production unit costs would need to be adjusted accordingly in the pen group, as well as the postage and printing unit costs in the no pen group. This approach ensures that any potential cost savings arising from a strategy's effectiveness (or its comparator) are accurately reflected when estimating incremental costs as part of the economic evaluation.

# Table 5. Example of adjusting unit costs for potential savings produced from a moreeffective recruitment/retention strategy.

 For example, if pens are more effective compared to no pens as a recruitment/retention strategy, it may be possible that, as part of data collection from no responders, 600 trial materials were sent overall to 500 SWAT participants in no pen group, meaning that the postage unit cost would be  $\pm 1.00*600/500= \pm 1.20$  (instead of  $\pm 1.00$ ), and the printing unit cost would be  $\pm 0.50*600/500= \pm 0.60$  (instead of  $\pm 0.50$ ).

- In addition, it is likely that efforts by the trial team to collect data from non-responders were higher in the no pen group compared to pen group, meaning that trial staff may have dedicated, for example, seven hours (instead of five hours) for collecting follow-up data and speaking for longer to trial participants allocated to no pen group (e.g. 120 minutes rather than 100). Thus, the administration unit cost in the no pen group would be £0.28 (instead of £0.20) and the communication unit cost would be (£0.16\*120)/500 = £0.04 (instead of £0.03).
- Thus, the unit cost of no pen would be: £1.20 + £0.60 + £0.28+ £0.04 = £2.12, assuming everything else is held constant. Therefore, the incremental cost of a pen would fall from £0.90 to (£2.63- £2.12) = £0.51.
- If a positive effect (irrespective of statistical significance) is identified for a recruitment or retention strategy, trial teams are encouraged to undertake economic evaluations alongside SWATs, in order to report the incremental cost-effectiveness ratio (ICER). The ICER is defined as the incremental cost per additional potential participant recruited, in the case of recruitment strategies, or the incremental cost per additional participant retained, in the case of retention strategies.
- If a strategy is more effective but also more costly, compared to the baseline one, estimate the following:

#### For recruitment strategies:

- Incremental cost per additional potential participant recruited= (unit cost of recruitment strategy- unit cost of comparator strategy)/ (recruitment rate of recruitment strategyrecruitment rate of comparator strategy)
  - Alternatively, trial teams could use a statistical measure of effect in the denominator,
     e.g. risk difference (RD). In the latter case:

 Incremental cost per additional potential participant recruited= (unit cost of recruitment strategy- unit cost of comparator strategy)/ RD (recruitment strategy vs comparator strategy)

#### Table 6. Example of estimating the ICER for a recruitment strategy

- *For example,* if, following a SWAT of pens versus no pens, the RD in favour of pens was 2.5 % and the unit costs of pens (no pens) were £2.63 (£1.78);
- ICER (pens versus no pens) = (£2.63 £1.73) / 0.025= £35.68 per additional potential participant recruited.
- If pens produced cost savings in terms of fewer additional resources used for recruiting potential participants, as in the example from *Table 5*, then the unit costs of no pen could be £2.12. Thus:
- ICER (pens versus no pens) = (£2.63 £2.12) / 0.025= £20.40 per additional potential participant recruited

#### For retention strategies:

- Incremental cost per additional participant retained= (unit cost of retention strategyunit cost of comparator strategy)/ (retention rate of retention strategy- retention rate of comparator strategy)
  - Alternatively, trial teams could use a statistical measure of effect in the denominator,
     e.g. RD. In the latter case:
  - Incremental cost per additional participant retained= (unit cost of retention strategyunit cost of comparator strategy)/ RD (retention strategy vs comparator strategy)

#### Table 7. Example of estimating the ICER for a recruitment strategy

- *For example,* if, following a SWAT of pens versus no pens, the risk difference in favour of pens was 0.7% and the unit costs of pens (no pens) were £2.63 (£1.78);
- ICER (pens versus no pens) = (£2.63 £1.73) / 0.007= £128.57 per additional participant retained

- If pens produced cost savings in terms of fewer additional resources used for retaining participants, as in the example from *Table 5*, the unit costs of no pen could be £2.12. Thus:
- ICER (pens versus no pens) = (£2.63 £2.12) / 0.007= £72.86 per additional participant retained
- If a strategy is more effective and less costly, compared to the baseline one, state it is
   dominant in terms of cost-effectiveness compared to the comparator. Dominant in this
   context means it provides better outcomes at a lower cost. Trial teams should continue
   to estimate and report the unit (and total) costs of each strategy (and their comparator).
- If a strategy is less effective and more costly, compared to the baseline one, state it is *dominated* in terms of cost-effectiveness compared to the comparator. Dominated in this context means it is not a cost-effective option since it results in worse outcomes at a higher cost. SWAT teams should continue to estimate and report the unit (and total) costs of each strategy (and their comparator).
- Please note the example of costing pens (and no pens) as recruitment or retention strategy is provided for illustrative purposes only and does not reflect existing evidence.

# Guidance on reporting the costs of a SWAT

Trial Forge guidance 4<sup>5</sup> outlines how to report your SWAT, we summarise below in Table 8.

#### Table 8: Trial Forge Guidance 4: reporting costs associated with the SWAT<sup>5</sup>

#### 17C. Summarise the costs associated with the SWAT:

The total cost of the SWAT was [insert cost], which equates to [insert cost] per participant Tabulate the additional costs to the trial incurred because of the SWAT, including total cost and cost per participant. This may include direct costs (e.g. printing, postage, animation) and indirect costs (e.g. staff time to prepare mailings). As SWAT evaluations generally need replication, it is useful for trialists to see the costs of both using the SWAT intervention *and* the cost of evaluating the SWAT should they wish to replicate the evaluation

If a positive effect (irrespective of statistical significance) was identified, provide a cost per additional participant for whom there is a favourable result (e.g. cost per participant retained). Otherwise, note that cost per participant was not derived

#### Reporting costs of a SWAT: a published example

An example of cost reporting (and economic evaluation) has been published by Arundel et. al., which focused on a SWAT testing the effectiveness of thank you cards for improving participant retention<sup>8</sup> (see Table 9 and Table 10 below).

#### Table 9: Example of costs in a published SWATs, adapted from Arundel et. al., 2024<sup>8</sup>

#### Outcomes

#### **Primary outcome**

- Difference in retention rate at one year post treatment of participants who received the thank you card versus those who did not receive a thank you card. Retention rate was defined as the number of participants who completed and returned the questionnaire booklet at the DISC [the name of the host trial] primary outcome timepoint.

#### Secondary outcome

- Cost per additional participant retained (if effect was positive) calculated as the total SWAT cost divided by the number of additional participants retained.

#### **Statistical analysis**

We calculated the average cost per card as the sum of printing, preparation and postage of the card. Staff time was calculated as the time spent undertaking SWAT activities (e.g., filling and labelling envelopes) multiplied by their associated hourly pay rate, determined using the midpoint of the grade band (University of York) for each member of staff involved in SWAT. Postage costs were calculated using second class Royal Mail Mailmark franking rates. Cost per card was calculated as the total cost for each component, divided by the number of cards. In the event that the primary analyses identified higher retention in the SWAT intervention group (irrespective of statistical significance) the cost per additional participant would be calculated by dividing the total costs by the number of additional participants retained.

#### Results

#### Secondary outcome - cost per Participant retained

The total cost of sending the thank you cards was £185.32 which equates to £0.79 per card. This was calculated using the parameters detailed in <u>Table</u> 5. As no statistically significant effect of the intervention was identified a cost per additional participant was not calculated.

Table 10. Costs associated with the thank you card SWAT, adapted from Arundel et. al.,20248

Task	Total cost	No cards involved	Cost per card
Printing cards <sup>a</sup>	£94.82	350	£0.27
Preparing cards <sup>b</sup>	£18.75	175	£0.11
Postage <sup>c</sup>	£71.75	175	£0.41
Total cost	£185.32		£0.79

<sup>a</sup>A total of 350 cards were ordered for the SWAT, sufficient to allow all DISC Trial participants to be randomised into the study.

<sup>b</sup>Preparation and packaging was completed by a University of York Grade 3 member of staff with the salary midpoint of the band used for calculations. Preparation and packaging took approximately 90 min (1.45 h) to complete at a rate of approximately 30 s per card.

<sup>c</sup>Cards were sent to SWAT intervention participants via Royal Mail Mailmark franking at a cost of £0.41 per card.

# Support with including a prioritised SWAT in your funding application

For support and advice on including a replication of a prioritised SWAT in your funding application, please email <u>trial-forge-swat-centre@york.ac.uk</u>.

### Support to undertake monetary incentive SWATs

If you are applying for funding to replicate a monetary incentive SWAT (see <u>MONCENTIVES</u> and <u>CASH</u> SWAT protocols), the <u>Implement SWATs</u> team is running a large programme of coordinated SWATs on this intervention and would be keen to collaborate. If funded, they can provide ongoing methodological support to help ensure the successful delivery of your SWAT.

In return, they ask that you share anonymised SWAT data with them to enable them to update the Cochrane systematic reviews of recruitment and retention strategies. The Implement SWATs team will combine results with similar SWATs in meta-analyses to generate high-certainty evidence on the effectiveness and cost-effectiveness of monetary incentives.

If you are interested, please contact the Implement SWATs Chief Investigator, Dr Adwoa Parker at: <a href="mailto:swats-group@york.ac.uk">swats-group@york.ac.uk</a>

# Please share your SWAT findings

If you undertake any of the prioritised SWATs, please share your findings so your results can be included in future updates of the Cochrane systematic reviews of recruitment and retention strategies. Please email Dr Adwoa Parker at: <a href="mailto:swats-group@york.ac.uk">swats-group@york.ac.uk</a>

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