

The impact of information about crime and policing on public perceptions

The results of a randomised controlled trial

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Research, Analysis and Information

national **AGENCY** POLICING

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Executive summary

The National Policing Improvement Agency (NPIA) carried out a randomised controlled trial to test the impact of crime maps and policing information. The public's reaction to information about crime and policing was positive; a large majority thought it was informative and trustworthy. Importantly, the study was able to challenge the myth that sharing information with the public would increase the 'fear of crime'. In fact, information was found to improve people's perceptions of their neighbourhood and of the local police. The results of the study suggest that crime and policing information is a promising intervention in terms of improving the views of the public and, potentially, enhancing police accountability. The evidence, therefore, indicates that an investment of police resources in making information available to the public is worthwhile, particularly when integrated within a broader neighbourhood policing approach.

- The NPIA carried out a randomised controlled trial to test the short term impact of web-based crime maps and policing information on public perceptions to a high standard of evidence. The purpose of the study was to assess whether the investment of police resources in providing information to the public would deliver benefits.
- The trial involved giving a large and nationally representative sample of people crime maps and/or policing information for their local area. Their views about the local police and the area where they lived were then compared to an equivalent group of people who received no information. In total, 7,434 members of the public participated in the trial.
- While the trial tested the information that was made available by police forces in England and Wales in 2009, its findings remain relevant because of the extension of crime mapping down to street level by January 2011.
- Overall, the public reaction to the crime and policing information was very positive. A large majority thought the intervention materials were trustworthy and informative:

- 89 per cent trusted the policing information and 86 per cent found it informative.
- 83 per cent trusted the crime maps and 77 per cent found them to be informative.

These results are important if information is to deliver wider benefits in the future, such as enhancing transparency and police accountability.

- The results suggested contextual information helped people to make sense of the crime data. A higher proportion thought crime maps were informative when they also received extra information about policing in the local area. Thus, crime maps should continue to be supplemented with details about the neighbourhood team and, potentially, crime prevention advice as well.
- Importantly, there was no evidence to suggest that any harm had been caused in terms of raising worry about crime. The findings of the study, therefore, challenge the myth that sharing information with the public would increase the 'fear of crime'.
- Overall, information provision was found to have a positive impact on some public perception measures.
 - Crime maps and policing information had a modest positive effect on the perceptions of neighbourhood policing. People were slightly more likely to think the police understood their concerns and dealt with the things that mattered.
 - Crime maps had a small positive impact on perceptions of the crime rate. People were slightly less likely to think crime was going up locally.
 - The policing information, and a combined package of the crime maps and policing information, also led to a slight increase in the proportion of people who thought it likely they would be a victim in the next 12 months. This result should not be seen as negative outcome given that worry about crime was not higher overall. A small rise in perceived crime risk was perhaps inevitable as the information was likely to remind people that crime sometimes did occur. Moreover, a specific policy aim was for crime

and policing information to help the public manage risks better and to take preventive action.

- The size of these effects was expected. Given that no attempt was made to change people's lived experiences of crime or the local police, it is notable that information was able to alter attitudes even in a small way. A more sustained flow of information might have a bigger effect in the longer term.
- Subgroup analysis also showed that some people, particularly those more 'exposed' to crime (e.g. victims of crime or residents in higher crime areas) were reassured by the crime and policing information. In addition, exploratory analysis indicated that the information also potentially helped reinforce pre-existing positive views.
- This finding underlines the need to target information, and to tailor its presentation and content towards the needs of different audiences. For example, particular consideration should be given to providing advice on effective and easy-to-implement crime prevention measures – specific to problems in the local area – to help foster reassurance and encourage behaviour change.
- In conclusion, the study suggests crime and policing information is a promising intervention in terms of improving public attitudes and, potentially, enhancing police accountability. It also indicates that the investment of police resources in making information available is worthwhile. Information provision should be regarded as integral to neighbourhood policing rather than a standalone initiative, particularly as it may enhance the impact of neighbourhood policing and provide reassurance.

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1. Introduction

Taking its lead in part from the 'Smith Review of Crime Statistics' (2006) and Louise Casey's 'Crime and Communities Review' (2008), the Home Office has been committed in recent years to a strategy of increasing the volume and quality of information accessible to the public about crime and policing. The purpose of this strategy has been to enhance transparency and public knowledge, as well as to foster greater external scrutiny of police performance locally. By 31 December 2008, all police forces in England and Wales were expected to comply with the 'Code of Good Practice for Public Access to Local Crime Information' (2008), and to publish maps on their websites that showed the level of crime and Anti-Social Behaviour (ASB) at a neighbourhood level. Early in 2009, forces were also required to make available information about neighbourhood policing.

This policy direction has been given renewed impetus under the Coalition government, which is committed generally to making official data openly available to the public and specifically to extending the scope of crime mapping down to street level by January 2011 (Home Office 2010). Beyond simply increasing the openness of the police, information provision can be seen as an essential part of an approach to performance which seeks to move away from what is perceived to be a bureaucratic centralised performance management regime towards greater direct accountability to local communities. Increasing information about local service delivery is seen as a key mechanism for encouraging the public to take greater responsibility for holding the local police to account for their performance.

In order to assess whether the investment of police resources was worthwhile, the NPIA's Research, Analysis and Information Unit (RAI) sought to evaluate the impact of forces making crime and policing information available to the public. A randomised controlled trial was, therefore, carried out at a national level to test the short term effect of crime maps and information about neighbourhood policing on public perceptions. The main purpose of this paper is to present the results of the trial (Chapter 4, p19). The trial was also supported by a broader programme of research, the findings from which are summarised in Chapter 2

(p8). This broader programme included a rapid assessment of the evidence on the impact of information on public attitudes, and focus group research exploring the needs and preferences of the public.

The development of the NPIA's national crime map website

After forces started to make crime maps and policing information available to the public, the NPIA was commissioned to develop a standardised national interface for force crime map websites which would enable the public to make comparisons across England and Wales (<http://maps.police.uk/>). The national website was launched in October 2009, the development of which was informed by emerging findings from RAI's programme of research.

The trial reported in this paper examines the impact of crime maps and policing information in general, and not the national interface subsequently developed by the NPIA showing crime at a neighbourhood or street level.

2. The wider research programme

A review of the research literature – summary findings

RAI commissioned a social research organisation (Matrix) to carry out a rapid evidence assessment on the impact of information about crime and policing using specific search and sifting criteria. Overall, the review found limited and diverse evidence on the impact of information provision about crime and policing, and pointed to some significant knowledge gaps in the literature. In general, survey research has highlighted a positive association between people being well-informed about policing and holding positive opinions of the police (Bradford et al. 2009). The review also identified a growing body of intervention evidence, much of which pointed towards information having a positive impact on public perceptions. Only a small number of studies were identified with direct relevance to the trial reported here.

The impact of crime maps

One study was found which specifically looked at the impact of crime maps on public perceptions (Groff et al. 2005). The experimental study from the US looked at whether different ways of presenting (paper-based) crime data had an adverse affect on people's fear of crime. The 314 participants included in the study were randomly assigned to one of three treatment groups; they were shown either a point map, a hot spot map, or tabulated crime statistics for Redlands, California. Overall, the crime maps were found to be no worse, and in some cases much better, than traditional crime statistics in their effect on people's fear of crime. Furthermore, no difference was found in the extent to which maps or statistics stigmatised neighbourhoods, which was measured in terms of whether the study's participants would recommend that other people move to particular areas. An important conclusion of the study was that the type of crime map used might make a difference to public perceptions. It was suggested that maps which masked variations and concentrations in crime at a very local level might make people more fearful than maps which were more specific and accurate at a local level.

The impact of policing information

No studies were found that specifically looked at the impact of providing web-based information about neighbourhood policing. There was, however, some robust evidence to suggest that newsletters about neighbourhood policing can have a positive impact on perceptions. A quasi-experimental study using a cross-sectional design carried out by the Metropolitan Police Service (MPS) found significant programme effects on public confidence in the police and perceptions of community engagement¹ (Wünsch and Hohl 2009; Hohl et al. 2010). The impact on perceptions of police effectiveness² was less clear-cut. There was evidence the intervention had a 'buffering effect' because perceptions declined in both the trial and comparison sites, but less so in the trial sites. The newsletters had no impact on perceptions of police fairness.

Importantly, the design of the MPS's newsletters was informed by the views of the public. Qualitative research found that people wanted the newsletters to be clear and concise, locally relevant, and easily identifiable as coming from the police. The public were also interested in receiving specific information about neighbourhood policing – particularly the team's contact details, their priorities, the actions taken by the police to deal with these issues, and how the public could get involved. These findings were broadly supported by similar national focus group research carried out for RAI. Recent results from the MPS's Public Attitude Survey, which has been used to assess the impact of newsletters on public perceptions across the force, have tentatively indicated that newsletters which do not meet the public's expectations may have a detrimental impact on perceptions (Wünsch 2009).

Overall, the results of the MPS's study were broadly consistent with experimental research on public attitudes about the wider criminal justice system. This

¹ A scaled measure based on perceptions of the police: listening to the concerns of local people; understanding the issues that affect the community; dealing with the things that matter; and reliability when needed.

² A scaled based on how well the police were perceived to be doing in terms of: tackling gun crime; supporting victims and witnesses; policing major events; addressing dangerous driving; and responding to emergencies.

research has demonstrated that information booklets – which specifically sought to ‘educate’ people on sentencing and crime rates in order to address ‘gaps’ in public perceptions – could have a positive impact (Singer and Cooper 2008). The way the information booklet was delivered to people was found to be crucial. Booklets handed out to people on their doorsteps had a bigger impact on confidence than those sent in the post. It was not clear, however, whether face-to-face contact encouraged people to read the booklet, or had a more direct influence on people’s perceptions. Indeed, evidence from the National Reassurance Policing Programme has suggested that satisfactory informal contact can positively affect a person’s wider confidence in the police (Myhill and Bradford, forthcoming). Earlier US research by Pate et al. (1986) also found that newsletters were less effective at reducing fear of crime than other activities which were more focused on fostering a closer working relationship between the police and the public (e.g. improved contact).

Evidence of risks?

Overall, the studies included in the literature review identified few drawbacks with information provision. General information about crime and policing, for example, was not found to increase worries about crime. One US study found that newsletters – which were highly rated among local residents – increased people’s perception of the level of crime, but not their fear of being a victim (Lavrakas et al. 1983). More specific information about more serious offences, however, could have the potential to make people feel less safe and secure. One small and inconclusive US study, for example, suggested written notifications sent to residents about local sex offenders might have increased personal fear of being a victim, although other factors were also found to be important (Beck and Travis 2004).

Focus group research on the views of the public – summary findings

In parallel with the trial, RAI commissioned a market research organisation (Ipsos MORI) to carry out a series of focus groups to gauge the views of a broad cross-section of the public on police information provision. In total, 12 focus

groups were conducted across England and Wales, each containing about 8-10 respondents.

Overall, the people in the focus groups indicated they trusted local crime data from the police much more than official government statistics. The national crime statistics were generally seen by respondents to be more subject to 'spin' and political influence.

There was a widespread view that the public had a right to information on crime levels in their local area, and the general agreement was that crime maps should be available to those who wanted them. Most people, however, said they were unlikely to access crime maps regularly themselves. They had a passive interest and tended to say they were much more likely to get their knowledge about crime and policing from a range of other sources. Personal experiences, and those of friends and family, were seen to be particularly important. In general, people said they knew which areas were safe or unsafe from living in their own neighbourhood. The information presented on the crime maps was seen to be more relevant and useful to people who had to make an active decision (e.g. moving house, choosing a school) and to 'secondary users' (e.g. journalists, council workers). The opportunity to elect a Police and Crime Commissioner may represent an additional stimulus for people to access this information.

Those who held more positive views tended to see crime maps as a way of:

- satisfying public interest in the local area;
- fostering reassurance; and
- showing that the police were open, transparent and 'making an effort'.

In general, respondents did not talk about using information to hold the police to account. When asked about point maps, respondents thought they might be more accurate. There was an awareness that crime was not evenly distributed, and that crime might appear 'artificially inflated' for an area if only the average for that area was displayed on the map. Respondents, however, recognised the need to balance greater precision with people's privacy.

Overall, there was a clear sense that extra contextual information needed to be presented alongside the crime maps in order to maximise their utility to the

public. In particular, there was interest in receiving additional information about neighbourhood policing, police performance, and crime prevention advice. The national website has developed along these lines, with the crime maps and policing information being presented alongside each other when users look for details about their neighbourhood.

3. The randomised controlled trial

The evaluation

The short term effect of crime maps and policing information on public perceptions was evaluated using a randomised experimental design. This approach enabled the effects of information provision to be estimated and statements about its impact to be made, because alternative causal explanations would have been controlled for.

The trial consisted of a nationally representative sample of research participants being selected and assigned, both at random, to one of the following groups:

- **The crime maps group** – Participants received maps showing the recorded crime rate and the rate of recorded ASB incidents for their local area.
- **The policing information group** – Participants received information about the neighbourhood policing team for their local area.
- **The combined intervention group** – Participants received both the crime maps and policing information interventions.
- **The control group** – Participants received no intervention.

In total, 7,434 members of the public participated in the study (roughly 1,800 per group). A large sample size was used to help ensure the findings of the trial could be generalised to the wider population. A fuller description of the trial is set out in Appendix A (p40).

The interventions

The interventions were delivered to the treatment groups as part of a face-to-face research interview. After a small number of opening questions, participants were asked to spend a few minutes looking at the relevant material for their local area from the previous month. The material was displayed on the interviewers' laptops as static screenshots. Participants in all the groups were then asked a series of questions about crime and policing in the local area.

Participants in the crime maps group were typically shown the thematic maps that had been made available by the police. With this type of map, each neighbourhood was shaded according to the levels of crime or ASB recorded by the police for the area compared to the force average.³ The force websites varied in terms of their design, geography, and whether additional statistical information was displayed (e.g. trends over time).

The information participants received about neighbourhood policing typically included:

- a photo of the team leader and/or neighbourhood officers;
- how to contact the team (e.g. email addresses, telephone numbers);
- information about the community's local policing priorities and the actions taken by the police to deal with these problems;
- details about forthcoming engagement events; and
- how the public could help the police.

Force websites, again, varied in terms of their design and level of detail.

Intended effects and theories of change

Advocates for information provision have argued that an increase in the volume and quality of information about crime and policing should deliver a number of improvements. These intended benefits are wide ranging, and extend from improved perceptions of the police to adjustments in people's behaviour in order to minimise the risk of being a victim of crime. Despite these broad and varied goals, policy documents have not tended to describe the aims of information provision in precise and unambiguous terms, or articulate a theory of change that clearly explains the link between the intervention and the intended outcome. For this reason, the trial focused on a narrower set of public perception measures that might realistically have been affected in the short term by information about crime and policing. The outcomes included in the study were

³ Thematic (or choropleth) maps stand in contrast to point maps and hot spot maps. Point maps show where specific incidents occurred using a location marker. Hot spot maps show the geographic concentration of crime using shaded 'contours' on a continuous scale.

derived from a series of testable propositions identified from recent policy documents (i.e. Smith 2006, Casey 2008, and Home Office 2008).

The outcomes are outlined below in terms of their intended direction of change, although it was recognised that information could have a detrimental effect on perceptions. The measurement of these outcomes is described in Appendix A (p49).

Perceptions of the local police

It would be reasonable to expect that a person's perceptions of the police in their local area might change if they were to receive information about the role and activities of their neighbourhood policing team. In comparison, the theoretical link between crime maps and the public's perceptions of the local police is less clear-cut.

- **The local police perceived to be community-oriented** – Given its focus and content, policing information may be expected to encourage people to think the police listened to local communities, understood their concerns, and dealt with their problems. Providing information to the public would, itself, be an example of the police being community-oriented. Earlier research suggested neighbourhood policing information might have a significant effect on this outcome (Hohl et al. 2010). Crime maps are much less likely, in theory, to affect people's perceptions in this respect.
- **The local police perceived to be effective** – Perceptions of police effectiveness – how well the police are thought to be doing in terms of responding to emergencies, keeping order, and solving crime – might be expected to improve if people were informed about police activity in the local area. However, effectiveness should not be regarded as a primary outcome because the specific measure used focused on issues that were largely not the responsibility of neighbourhood teams. Furthermore, earlier research on

the impact of police newsletters suggested that perceptions of effectiveness are likely to be more of a secondary outcome.⁴

In theory, perceptions of police effectiveness could be affected by crime maps if they resulted in people thinking crime was less of a problem and that the local police had helped reduce crime.

- **Public confidence in the local police** – Previous empirical research has shown a strong link between perceiving the local police to understand and deal with local problems, and public confidence (Tuffin et al. 2006; Myhill forthcoming). Thus, if information about neighbourhood policing leads people to think the police are community-oriented, it may subsequently result in increased levels of confidence. While information has been shown previously to have a direct impact on confidence (Hohl et al. 2010), its effect is most likely to be longer term and mediated via perceptions of neighbourhood policing.

The mechanism between crime maps and confidence is less clear, although a link might be fostered if the police are seen to be effective in controlling crime. However, perceptions of effectiveness have been shown to be less strongly associated with confidence compared to perceptions of neighbourhood policing (Myhill forthcoming).

Perceptions of the local area

Receiving a map showing the level of crime and ASB recorded by the police in the neighbourhood might be expected to change a person's attitudes towards crime where they live. A link between receiving information about neighbourhood policing and perceptions of crime locally is theoretically possible but, in comparison, likely to be less direct.

⁴ In the Metropolitan Police study, perceptions of effectiveness declined in wards that received a newsletter, but less so than in comparison wards. This result was taken as evidence of a 'buffering' effect (Hohl et al. 2010).

- **Crime not perceived to be a problem in the local area** – People may be more inclined to say that crime is not a problem if they learn from the map that crime where they live is not as bad as they expected.
- **Crime not perceived to be increasing in the local area** – Similarly, people might be more likely to say that crime is not going up in the local area if they are reassured by the crime map.

Both mechanisms, however, would rely on people trusting the information they received. The crime maps would also have to present a picture of crime in the neighbourhood that was substantially different from their own understanding derived from personal and vicarious experiences as well as other sources.

Perceptions of personal safety

It would be realistic to expect that a person might think and feel differently about their own sense of safety if they were to find out more about crime in their neighbourhood or what the local police have been doing.

- **The perceived likelihood of being a victim of crime** – Perceptions of crime risk will almost inescapably see a short term increase in the treatment groups simply because information about crime and policing is likely to remind people that being a victim of crime is a possibility (however rare). Partly because of its inevitability, such an increase should not be seen as a negative result. The measurement of perceived crime risk, in theory, has a cognitive focus in that respondents are asked to make a 'rational calculation' of their chances of being a victim. In practice, however, people's perceptions of crime risk have found to be typically 'pessimistic', often unwarranted, and possibly grounded more in everyday 'rules of thumb' than a detached probabilistic assessment (Ditton and Chadee 2006). Nevertheless, 'risk' and 'likelihood' is relatively neutral in tone and likely to have fewer negative connotations to respondents than other, more affective, measures of perceived personal safety such as 'worry', 'fear', and 'anxiety'. Furthermore, even though a disparity exists between perceived and actual crime risks (Parfremment-Hopkins and Green 2010), a specific policy aim was for information to help the public "to manage personal and family crime risks" and decide "what preventative action to take" (Smith 2006: 19). In this

context, an increase in perceived crime risk might be seen as beneficial and a prerequisite for behaviour change.

- **Worry about being a victim of crime** – It is possible that, on receiving the information, people might become more worried about being a victim. Such an increase should ordinarily be regarded as an unintended and negative side effect, because it would provide an indication that harm had been caused on an emotional level. However, previous research has shown that the impact of crime maps on fear was the same – if not better – than traditional crime statistics, although no comparison was made with people who received no information (Groff et al. 2005).

4. Results

The public's response

As well as examining the effect of information provision on the main outcome measures, the trial also looked at how receptive the public were to the intervention materials. Whether the public found the crime maps and policing information to be trustworthy and/or informative should be regarded as important results in their own right. A positive response would be encouraging in terms of the public's trust in crime statistics, and as a critical first step towards information delivering wider benefits in the longer term. For example, the public would need to have a degree of faith in the crime maps if people were to use them to hold the police to account.

The results presented below describe the response of people in the three treatment groups because those in the control group did not receive any information. It is possible that participants provided 'socially acceptable' answers which were intended to meet the approval of the interviewer. While a risk, social acceptability bias should not be assumed. First, the interviews were described in general terms as being about 'crime and policing in the local area', and the intervention materials were introduced in neutral terms. Second, participant's responses to different information varied, which suggested they were not uniformly giving answers that were designed to 'please' the interviewer.

Trustworthy and informative?

Overall, the public's response to the policing information and crime maps was very positive. The intervention materials were highly rated by the people who received them, and a large majority thought the materials were trustworthy and informative.

People tended to trust the intervention materials slightly more than they found them to be informative, and were more likely to give the highest rating to the materials in terms of their trustworthiness ('trusted a lot'). Participants across the different treatment groups, when aggregated together, were also slightly more receptive to the policing information than they were to the crime maps:

- **Rating the materials as 'trustworthy'** – 89 per cent trusted the policing information, compared to 83 per cent for the crime maps (Figure 1, p21).
- **Rating the materials as 'informative'** – 86 per cent of people found the policing information to be 'very or fairly informative', compared to 77 per cent for the crime maps (Figure 2, p22).

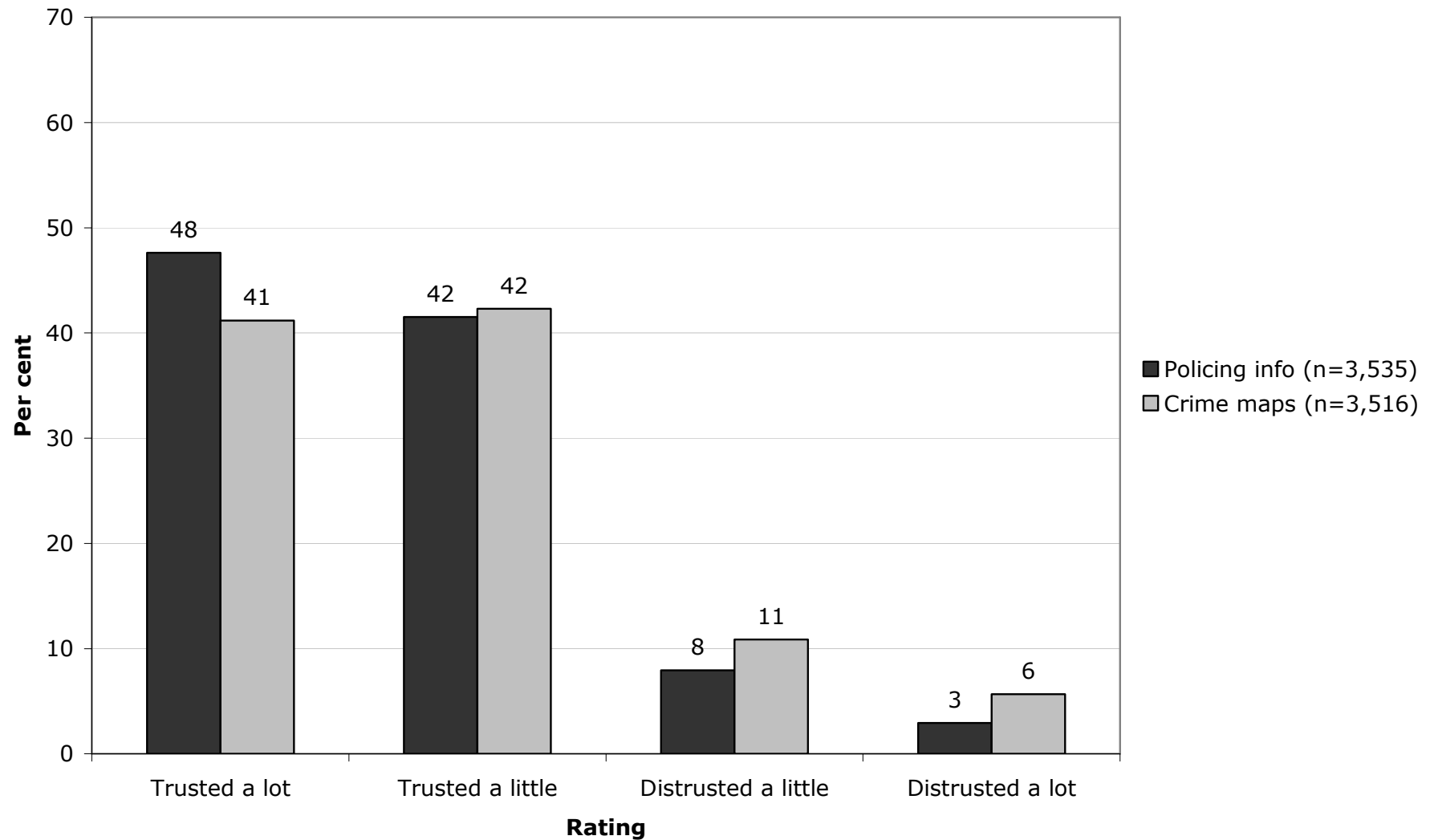
The value added by policing information

The trial's design meant it was possible to compare the response of people who received only one intervention with those who received both, which may help to unpick whether a particular type of information 'added value'. Overall, the pattern of results suggested that, while crime maps did not add value to policing information, policing information added value to crime maps (Figure 3, p23):

- **Policing information** – The public's reaction to the policing information was found to be the same regardless of whether other material was presented alongside it. When received on its own, 89 per cent trusted the policing information and 86 per cent found it to be informative. As part of a combined package, 90 per cent trusted the same information, and 86 per cent found it to be informative.
- **Crime maps** – A similar pattern was identified with the crime maps in terms of their trustworthiness. In total, 84 per cent trusted the crime maps when received on their own, and 83 per cent did when delivered as part of the combined intervention. However, a significant difference was found in terms of how informative crime maps were thought to be. The public said crime maps were more informative when they were presented alongside policing information (79%) than when they were presented without context (75%).

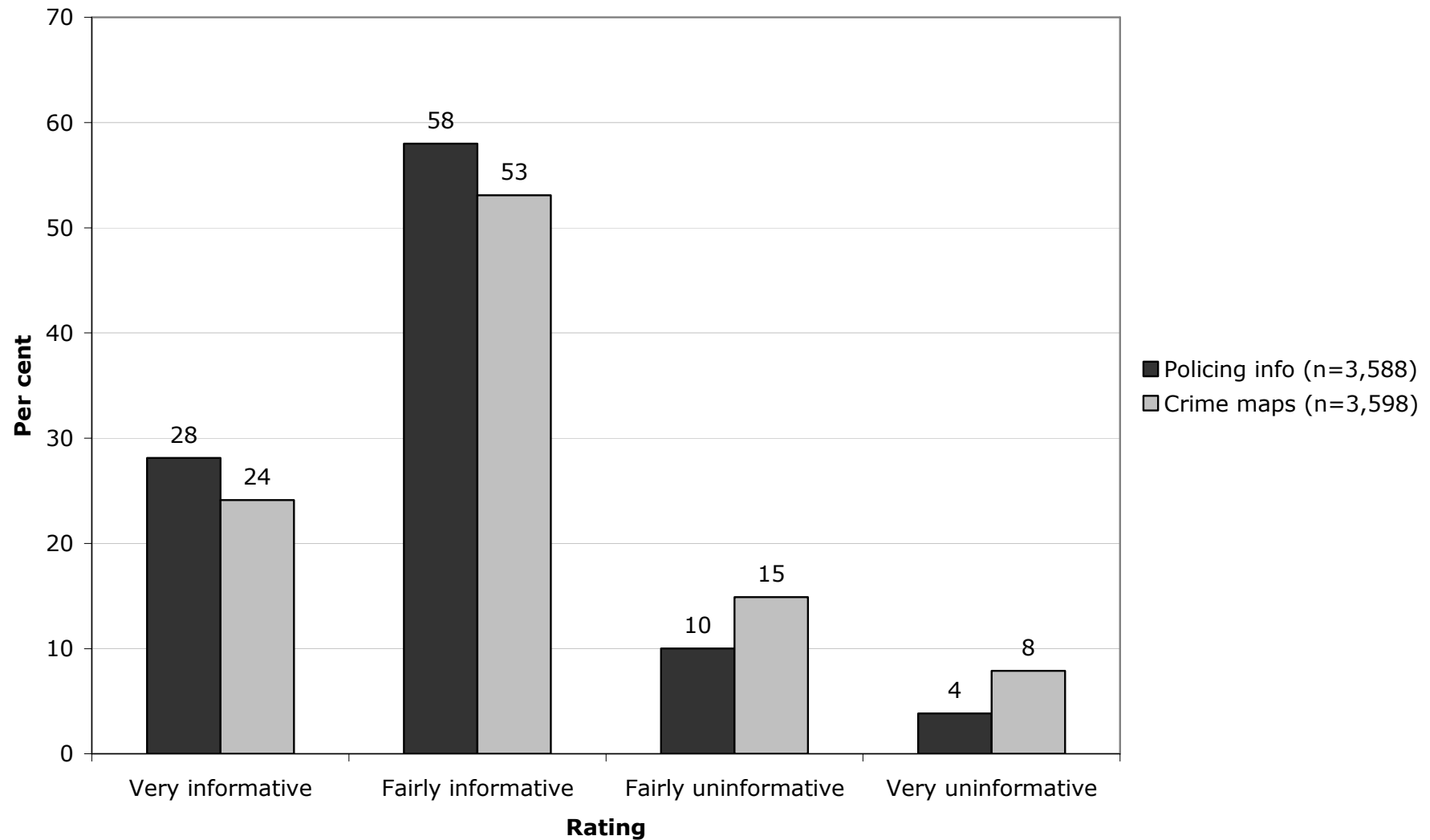
The finding that the public's reaction to crime maps appeared to be enhanced by the neighbourhood policing information is consistent with the findings from the qualitative research carried out in parallel to the trial. Focus group participants generally felt that additional contextual information needed to be presented alongside the crime maps if they were to be seen as an effective method of communication. In particular, people were interested in additional contextual information about neighbourhood policing and crime prevention advice.

Figure 1. The public's rating of the intervention materials as 'trustworthy'



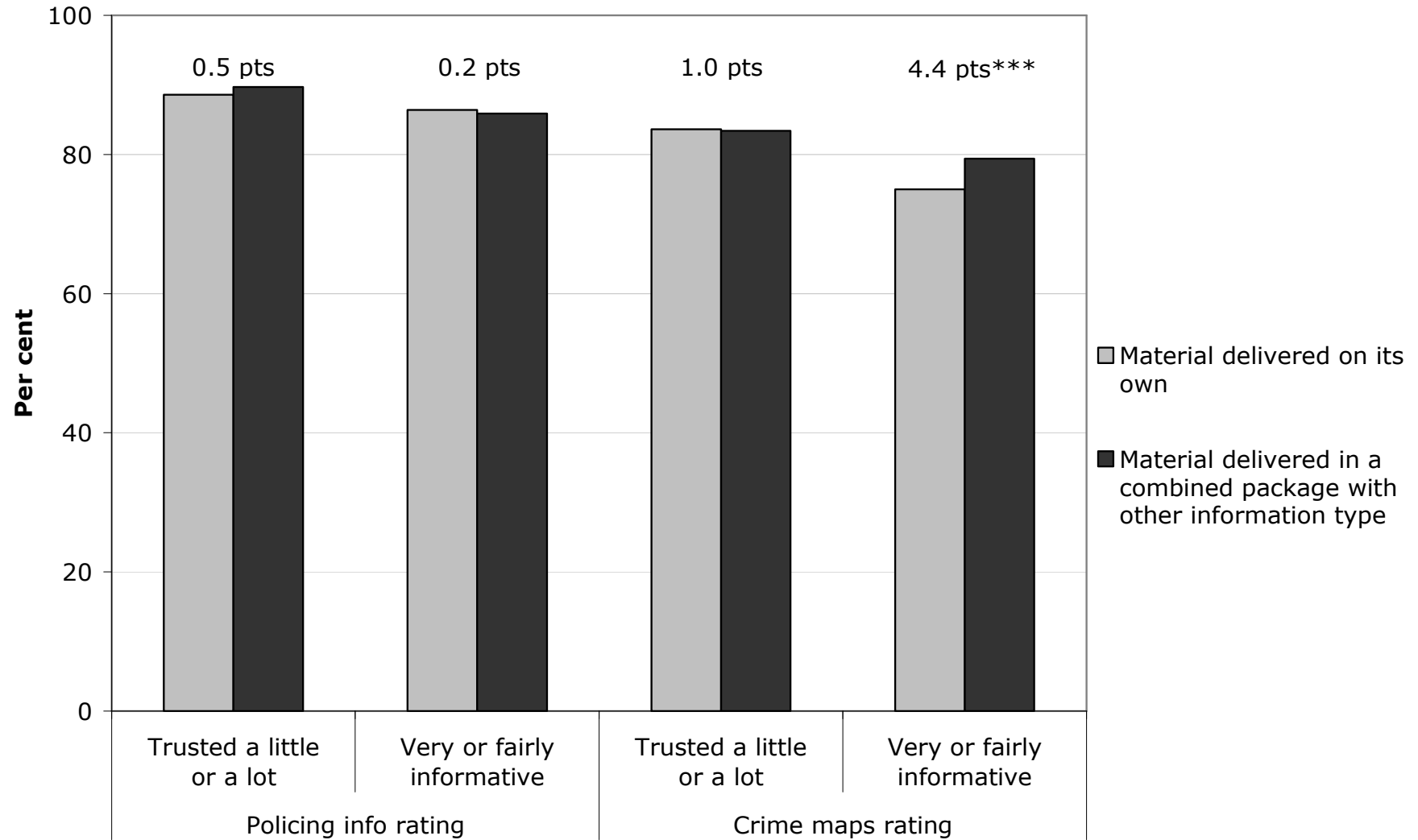
Note: Unweighted data. Responses from the single and combined intervention groups have been aggregated.

Figure 2. The public's rating of the intervention materials as 'informative'



Note: Unweighted data. Responses from the single and combined intervention groups have been aggregated.

Figure 3. The public response to the intervention materials by mode of delivery



Note: Unweighted data.

Statistical significance: * $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

The overall impact of crime and policing information

Analysis was carried out to identify whether public perceptions in each of the three treatment groups were, on average, significantly different to those in the control group. The design of the study meant significant differences could be attributed directly to the interventions because the study participants should have been equivalent in all other respects as a result of their random assignment to the groups. In addition to identifying whether the interventions had an effect on public perceptions, the analysis was also able to establish the size of those effects.

Overall, information provision was found to have had a positive impact on some outcome measures. The analysis identified a series of statistically significant differences between the treatment and control groups that were modest in size, but revealed no consistent or widespread pattern of difference (Table 1, p25). Importantly, no evidence was found that the interventions had caused any harm as worry about crime was, on average, the same across the different groups.

Perceptions of the local police

The analysis showed that the three interventions each had a significant impact on the extent to which people thought the local police listened to the community, understood their concerns, and dealt with the issues that mattered. The effects were statistically significant, but fairly modest in size – ranging between a 1.3 and 1.6 per cent difference in the outcome variable (Table 2, p26). Nevertheless, the treatment effect was consistent across the groups. This pattern of results might suggest that information was most effective in improving people's views of neighbourhood policing, particularly as it did not have a consistent effect on other outcome measures.

Table 1. Summary of significant overall effects

	Intended effects	Significant effects (effect size)		
		Crime maps	Policing info	Combined intervention
Perceptions of the local police				
The local police perceived to be community-oriented	↑	↑ (1.3%)	↑ (1.6%)	↑ (1.3%)
The local police perceived to be effective	↑	-	-	-
Confidence in the police	↑	-	-	-
Perceptions of the local area				
Crime perceived to be a problem in the local area	↓	-	-	-
Crime perceived to be increasing in the local area	↓	↓ (1.0%)	-	-
Perceptions of personal safety				
Perceived likelihood of being a victim of crime	↑	-	↑ (1.6%)	↑ (1.5%)
Worry about being a victim	No ↑	-	-	-

Note: This summary table provides an overview of the full results tables set out in Appendix B (p52).

Table 2. Mean response scores and effect sizes

Outcome (response score)	Mean response score				Effect size		
	Control	Crime maps	Policing info	Combined intervention	Crime maps	Policing info	Combined intervention
Perceptions of the local police							
The local police perceived to be community-oriented (1 to 10)	5.09	5.22	5.25	5.22	0.13* (1.3%)	0.16** (1.6%)	0.13* (1.3%)
The local police perceived to be effective (1 to 10)	5.44	5.47	5.46	5.51	0.03 (0.3%)	0.02 (0.2%)	0.07 (0.7%)
Confidence in the police (1 to 4)	2.39	2.37	2.36	2.35	-0.02 (0.4%)	-0.03 (0.6%)	-0.04 (0.8%)
Perceptions of the local area							
Crime perceived to be a problem in the local area (1 to 4)	1.15	1.13	1.17	1.16	-0.02 (0.5%)	0.02 (0.5%)	0.01 (0.3%)
Crime perceived to be increasing in the local area (-2 to +2)	0.08	0.03	0.06	0.06	-0.05* (1.0%)	-0.02 (0.4%)	-0.02 (0.4%)
Perceptions of personal safety							
Perceived likelihood of being a victim of crime (1 to 10)	3.38	3.42	3.54	3.53	0.04 (0.4%)	0.16* (1.6%)	0.15* (1.5%)
Worry about being a victim (1 to 4)	2.48	2.49	2.52	2.51	0.01 (0.3%)	0.04 (1.0%)	0.03 (0.7%)

Statistical significance: *p<0.05 **p<0.01 ***p<0.01

Note: Confidence in the police was negatively scored

The effect on the police being seen to be community-oriented might also be regarded as the most pertinent test of the effectiveness of policing information. The relationship between the intervention and perceptions of neighbourhood policing was theoretically stronger than for other outcomes, and was supported empirically by previous research. Moreover, information provision can be seen, in general, as an example of the police trying to engage local citizens, while the specific information people were given was largely about how the police were dealing with problems in the neighbourhood.

None of the interventions were found to have had any further effects on public attitudes towards the local police (as was perhaps to be expected). There were no differences between the control and the treatment groups in terms of people's perceptions of police effectiveness or their confidence in the police. Even though information provision did not increase public confidence in the short term, it is possible to speculate that an effect might be achieved in the longer term if the impact on the public's perceptions of neighbourhood policing could be sustained and further enhanced over time.

Perceptions of the local area

The analysis identified few significant differences between the treatment and control groups in terms of people's perceptions of crime in the local area.⁵ One positive effect was detected. Only crime maps were found to have an impact on public attitudes, and then only in respect of people's perception of the crime rate. Those who received a crime map were, on average, significantly less likely to think crime had increased in their local area compared to people in the control group. Again, the size of the effect was relatively small. There was a 1 per cent difference in the outcome variable between the two groups (Table 2, p26).

Perceptions of personal safety

The results did not provide any evidence that information provision had a detrimental impact on people's perceptions of their personal safety. Crucially,

⁵ Analysis was also carried out to assess the effects of information on whether people perceived ASB to be a problem in the local area or to be rising. No positive or negative effects were identified.

none of the interventions resulted in an increase in worry about being a victim of crime. The mean scores for the treatment and control groups were not significantly different (Table 2, p26).

Some significant differences were detected in terms of how likely people thought they were to be a victim of crime in the next 12 months. On average, the chances of being a victim were perceived to be significantly higher among those who received the policing information and the combined intervention, compared to the control group. The differences in the mean response score for the two interventions were around 1.5 per cent, which meant the size of the effects were again modest (Table 2, p26). These effects were to be expected particularly as the information people were provided with was likely to remind them that crime was a 'real event' which sometimes occurred in their neighbourhood. For this reason, a small short term increase in people's assessment of crime risk should not be interpreted as a negative result, especially as worry about being a victim did not increase.

Subgroup analysis

The analysis presented above sought to test the effectiveness of crime and policing information by comparing the perceptions of people, on average, in each treatment group with those in the control group. However, because these 'overall effects' were necessarily averaged out across each treatment group, important effects for particular subgroups of people might have been concealed. Further analysis was therefore carried out to examine whether the effects of the interventions were mediated by other factors. In other words, there was an attempt to identify 'interaction effects' between receiving one of the interventions and being a member of a particular social group.⁶

⁶ School exam results might show, for example, that pupils in single-sex schools do better, on average, than pupils in mixed-sex schools (evidence of an overall effect). However, such analysis might conceal important differences. Attending a single-sex school might have a big impact on boys' results, but not on girls' results (evidence of an interaction effect).

The results of the subgroup analysis have been described in summary below (for the full results tables see Appendix B, p52). Interaction effects have only been reported when a consistent pattern of results was identified for subgroups defined by relatively 'fixed' characteristics or experiences (rather than by more 'fleeting' perceptions or behaviours). Isolated or 'one-off' results which, despite being statistically significant, did not point to an overall pattern of change have not been reported. While the interactions carry less weight than the overall effects reported above, they can help generate important theoretical insights about how information might have informed public opinion.

Interaction effects were identified for a small number of subgroups:

- **Sex** – Positive interaction effects were identified for females in terms of following outcome measures:
 - Confidence in the local police (crime maps).
 - Perceptions of police effectiveness (crime maps).
- **Length of residence** – Positive interaction effects were identified for people who had lived in their area longer in terms of following outcome measures:
 - Perceiving the police to be community-oriented (combined intervention).
 - Crime being perceived to be a problem in the local area (crime maps and combined intervention).
 - Crime perceived to be increasing in the local area (combined intervention).
- **Victims of crime** – Positive effects were identified for victims of crime in terms of following outcome measures:
 - Confidence in the local police (crime maps and combined intervention).
 - The perceived likelihood of being a victim in the next 12 months (policing information and the combined intervention).

Importantly, despite some forms of information having elevated the perception of crime risk amongst victims, there was no corresponding increase in worry about crime.

- **People living in higher crime areas** – Positive interaction effects were identified for people who lived in areas with higher levels of recorded crime in terms of following outcomes:
 - The local police being perceived to be community-oriented (crime maps only)
 - Public confidence in the police (crime maps and combined intervention).
 - Crime being perceived to be a problem in the local area (crime maps and combined intervention).

Overall, the small number of the interactions that were identified and their relatively small size suggested that the impact of the interventions was fairly consistent across a range of different subgroups.⁷ Nonetheless, the cluster of positive results that were identified for victims of crime and for those people who lived in higher crime areas highlighted the potential for information to provide reassurance to those people more 'exposed' to crime.

⁷ No consistent interaction effects were identified in relation to age or educational attainment, or the quality of information respondents received.

5. Discussion

Taken together, the results help to explain whether and how information can shape the public's understanding of crime and policing. The experiment showed that information could have an impact on people's views about the police, their local area, and their personal safety. Importantly, these effects were positive overall and served to move public attitudes a relatively small way in the intended direction. Moreover, no harm was caused overall. That any positive effects were identified, however modest in scale, is encouraging. It is often taken as self-evident that information will directly shape, change, or reinforce public attitudes. There are, however, good reasons to suggest that this might not always be the case, particularly in the short term.

The framing of perception

While people's understandings of their social environment do develop over time with new experiences, it is relatively rare for them to change their opinion suddenly. From a theoretical perspective, it has been argued that people use pre-existing cognitive 'frames' to locate relevant information and to sift, interpret, and make sense of it (Goffman 1974). While 'reframing' sometimes occurs, whereby people have to adjust their understanding in light of new information, the process can be confusing and embarrassing. For this reason, information is often thought to be read by people in a way that reinforces their pre-existing interpretative frames. Attitude change is, therefore, likely to be gradual at best. At a national level, the British Crime Survey has shown that public perceptions of the police have slowly shifted over time as part of a longer term trend, but that year-on-year changes (while statistically significant) have been typically small (one or two percentage points). It is perhaps not surprising then that the information about crime and policing that was given out as part of this trial did not quickly lead to large or widespread changes in public opinion.

There is some empirical evidence from the trial to suggest that people's pre-existing views may have partly shaped the impact the interventions had on their attitudes. The results of exploratory quantile regression analysis tentatively suggested that differences in participants' perceptions of the local police being

community-oriented were limited to the 'top-end' of the sample distribution (Appendix D, p61). Potentially, this finding indicated that information had a reinforcing effect on perceptions. In other words, information may have made people who already held positive attitudes about the police, slightly more positive. One explanation would be that people who held better opinions of the police were probably more likely to see the information provided by them as a trustworthy source. Although the design of the experiment did not allow this hypothesis to be fully tested⁸, participants who trusted the information were also more likely to hold more favourable views of neighborhood policing. This finding would be consistent with the idea that people use pre-existing frames to interpret information, and that trust in the police and in information are inter-related and mutually supportive.

The framing perspective might also help explain why those people most 'exposed' to crime (i.e. as a victim or because they lived in a higher crime areas) seemed to be reassured by the information provided by the police. It is possible that the information was more pertinent to them as it chimed with their previous experiences and, at the same time, encouraged them to think the police were trying to understand and deal with problems in the local area. As some groups may benefit slightly more from receiving information, there may be value in the police targeting these people more regularly with information specifically tailored towards their needs. Given the views of the public expressed in the focus groups and the impact of information on people's perceived crime risk, there would be scope to provide straightforward crime prevention advice – specific to the problems in a local area – that could be easily adopted by communities or individual citizens. Such information might reassure those people made aware of local crime and ASB problems about which they had little prior knowledge, and also help encourage behaviour change. In public health, for example, it has been suggested that a change in public behaviour should occur when people recognise a risk, believe a particular course of action will be effective at minimising that

⁸ It was not possible to test this hypothesis because pre-test attitudes were not measured. In hindsight, an alternative approach would have been to have given the intervention material to the control group at the end of the interview in order to gauge their opinion of it.

risk, and think that preventive action can be easily adopted with few costs (see Rosenstock 1966). Given the value of providing additional contextual information alongside crime maps, the police service should consider making bespoke crime prevention advice readily available through their websites to help enhance the impact of information provision and minimise any potential risks.

The strength of the intervention

The impact of crime and policing information also needs to be seen in the context of other interventions. While public perceptions tend to be fairly stable, research has shown they can be improved by police activity. The evaluation of the National Reassurance Policing Programme, for example, demonstrated that full implementation of neighbourhood policing at a local level resulted in a net increase in public confidence of 12 percentage points (Tuffin et al. 2006). This improvement was made possible through a concerted effort by the police – over the period of a year – to engage local communities to understand their concerns and to solve their problems through co-production. In other words, the large effect on public perceptions was prompted by a major and sustained change in the way policing was carried out on the ground, and by a reduction in the types of crime and ASB that affected people’s sense of security. Compared to an intervention that sought to change the actual conditions in which people lived, it would be realistic to expect that information about crime and policing would have a much smaller impact. Moreover, the focus group research indicated that people’s personal and vicarious experiences were likely to have a bigger influence on their attitudes than information provided by the police.

Even though information was a comparatively ‘weak’ intervention, it did result in some small improvements in public perceptions. These improvements were detected immediately after the information was given to study participants. These effects are likely to fade over time as people start to draw again on their everyday sources of information. However, it is possible to speculate that a more sustained campaign might lead to larger and more lasting changes in public attitudes particularly if information is used as part of a broader neighbourhood policing approach and complements actual policing activity on the ground. Similarly, the interventions might be expected to have a larger effect on people

who show an active interest in accessing information about crime and police, than on members of the wider general public who were included in this study.

The provision of better quality information might, over time, also help. It is important to recognise that the trial was carried out only a few months after forces had started to make crime maps and policing information available. Implementation was still in its infancy and Home Office reviews carried out at the time to check the quality and compliance of force websites found some marked variations in their content and appearance.⁹ However, since then and with the development of the national website, forces have gained considerable experience and made many improvements to their sites following feedback from users. The type of crime map used by the police has not changed since the trial. Following the national guidelines, most forces made thematic crime maps available. On these maps, each neighbourhood was shaded to show whether its crime rate was above, below, or in line with the crime rate for the whole force. In practice, most neighbourhoods were shaded as 'average' because of the way the threshold between the categories was required to be calculated. Furthermore, thematic maps at a neighbourhood level were unable to show localised variations in crime. Research, however, has shown that crime tends to concentrate in small places and endure over time (Weisburd et al. 2010). Cold spots have been found in high crime neighbourhood and vice versa – both of which are likely to be well-known to nearby residents. It is likely, therefore, that the thematic maps used as part of the trial did not give people information that was most relevant and meaningful to them. It is possible that maps which present a more accurate local picture might be more effective in shaping public perceptions, particularly as earlier research has indicated that some map types may have a larger effect than others (Groff et al. 2005). More precise street level crime maps are to be introduced across England and Wales from January 2011.

⁹ However, subgroup analysis showed that the quality of the information (as graded by an independent assessor) did not affect people's perceptions.

6. Conclusions

The findings of this study have important implications for the police service in terms of whether and how it shares information about crime and policing with the public. If a primary objective of making information available is to enhance transparency, a necessary first step would be for the public to have a positive reaction to crime maps and information about neighbourhood policing. The results showed that a large majority of study participants thought the intervention materials were trustworthy and informative. The trial and broader research programme also highlighted the importance of providing additional contextual information alongside crime maps. Details about neighbourhood policing were found to enhance how informative crime maps were thought to be. Moreover, people said extra context was needed if crime maps were to be an effective way of communicating with the public. They were particularly interested in finding out about neighbourhood policing, police performance, and crime prevention, as well as more accurate information. The implication of these findings is that when crime maps are made available, they should be supplemented with local information about the work of the neighbourhood policing team and how people can contact them. Consideration should also be given to providing advice on effective and easy-to-implement crime prevention measures – which are specific to the local problems in the area – to foster reassurance and help encourage behaviour change.

The trial also provided some evidence that online information about crime and policing could have a positive – albeit modest – impact on people’s perceptions. Given that no attempt was made to change people’s lived experiences of crime or the police, it is notable that information was able to alter public attitudes about neighbourhood policing even in a small way. As the intervention was relatively ‘weak’ and only its short term effects were examined, the fact that even modest improvements were identified could indicate that a more sustained information campaign might have a bigger impact on people’s perceptions in the longer term particularly if it meets their needs. More importantly, the trial found that no harm was caused overall. While people became slightly more aware of the possibility of being a victim (which was to be expected), crime maps and policing information did not make people, on average, more worried. This study,

therefore, challenges the myth that information provision would inevitably increase the public's fear of crime.

The exploratory subgroup analysis that was carried out gave some further insights about how information might have shaped people's opinions. There was some evidence to suggest that the interventions had a reinforcing and reassuring effect for some people. It seemed likely that holding positive views about the police and being receptive to the information were mutually supportive of one another, which served to enhance people's already positive views. Those who were more directly affected by crime (e.g. as a victim or resident in a higher crime area) also seemed to be reassured by the intervention material. This finding underlines the need to target information, and to tailor its presentation and content towards the needs of different audiences. Making crime prevention advice available, for example, may be of particular benefit to some groups and may also encourage preventive action.

The results of this trial and the broader research programme have demonstrated that the information provision can help – in a small way – to change public views. The findings suggest that crime and policing information is a promising intervention in terms of improving the views of the public and, potentially, enhancing police accountability. The investment of police resources in making information available to the public is, therefore, likely to be worthwhile.

To maximise its benefit to the public, information provision should be integrated within a broader neighbourhood policing strategy, rather than being seen as a standalone initiative. Under this approach, the police should continue to focus on engaging local communities, understanding their concerns, and dealing with the problems that affect them. There would be scope for local information about crime and policing to be provided in a way that seeks to augment the impact of neighbourhood policing and to reassure some members of the public, particularly when it is delivered in more of a sustained and targeted campaign. Such an approach would also be consistent with the findings of earlier research on local newsletters, which have been found to be effective when they meet the expectations of the public and support a well-established approach to neighbourhood policing based on community engagement and problem-solving (Wünsch and Hohl 2009; Hohl et al. 2010).

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Appendix A: Research methods

The design of the trial

A clustered randomised design was used to help ensure a high level of internal validity. The sample was also designed to help ensure a degree of external validity, so that the results could be generalised to the population of England and Wales. Socio-demographic comparisons showed that the achieved sample was broadly representative, but the proportion of men and young people in the sample was slightly lower than the national average (Table A1, below).

Table A1. The profiles of the study sample and resident population in England and Wales

	England and Wales (%)	Achieved sample (%)
Sex		
Female	52.0	54.9
Male	48.0	45.0
Total	100.0	100.0
(n)	(41,553,180)	(7,432)
Age		
16-19*	6.2	3.3
20-24	7.5	4.5
25-34	17.9	14.2
35-44	18.6	18.3
45-54	16.6	16.3
55-64	13.2	17.1
65+	20.0	26.4
Total	100.0	100.0
(n)	(41,513,180)	(7,425)
Ethnic group		
Asian or Asian British	3.9	3.6
Black or Black British	2.0	2.5
Chinese or other ethnic group	0.9	2.0
Mixed	0.8	1.0
White	92.4	90.9
Total	100.0	100.0
(n)	(41,513,180)	(7,410)

Source: Census 2001 (National Report for England and Wales).

Note: Profiles have been adjusted to account for those who did not give answers.

*This age category did not correspond exactly with the Census, which covered those aged 15-19.

Unlike many social experiments, changes in public perceptions before and after the delivery of the intervention were not measured.¹⁰ The trial only looked to identify differences between groups after the intervention. While pre-tests can be useful, they are not always essential because, in theory, randomisation should make all the treatment and control groups equivalent in all known and unknown attributes.¹¹ Nonetheless, the profile of the achieved sample showed that the treatment and control groups were largely equal in terms of their socio-demographic characteristics (Table A2, p42). The largest difference between categories was around two percentage points.

In total, 7,434 members of the public participated in the study representing an achieved response rate of 62 per cent. Study participants were recruited through a multi-stage sampling approach similar to the one used by the British Crime Survey. The sampling process was designed in such a way to give households, and then people in those households, an equal chance of being included in the study (as far as possible). The total sample size was adjusted to take account of the intra-cluster correlation.

From the Postcode Address File, which contains a list of all postcode sectors in England and Wales, 334 sectors were selected at random. Each postcode sector was split into four quarters, with 40 addresses selected at random from each quarter using a systematic process. Each address was then pre-assigned at random to one of the four groups. In order to minimise bias, the interviewers did not know beforehand to which group individual addresses had been assigned. Prior to fieldwork, every household in the sample was sent a letter which introduced the study in very broad terms to help boost the response rate.

¹⁰ Re-visiting participants would have been prohibitively expensive. Repeating questions in the same interview was also not regarded as a realistic option.

¹¹ In hindsight, it would have been helpful to have included some pre-test measures to test whether trusting the information affected its impact.

Table A2. The sample profiles of the treatment and control groups (%)

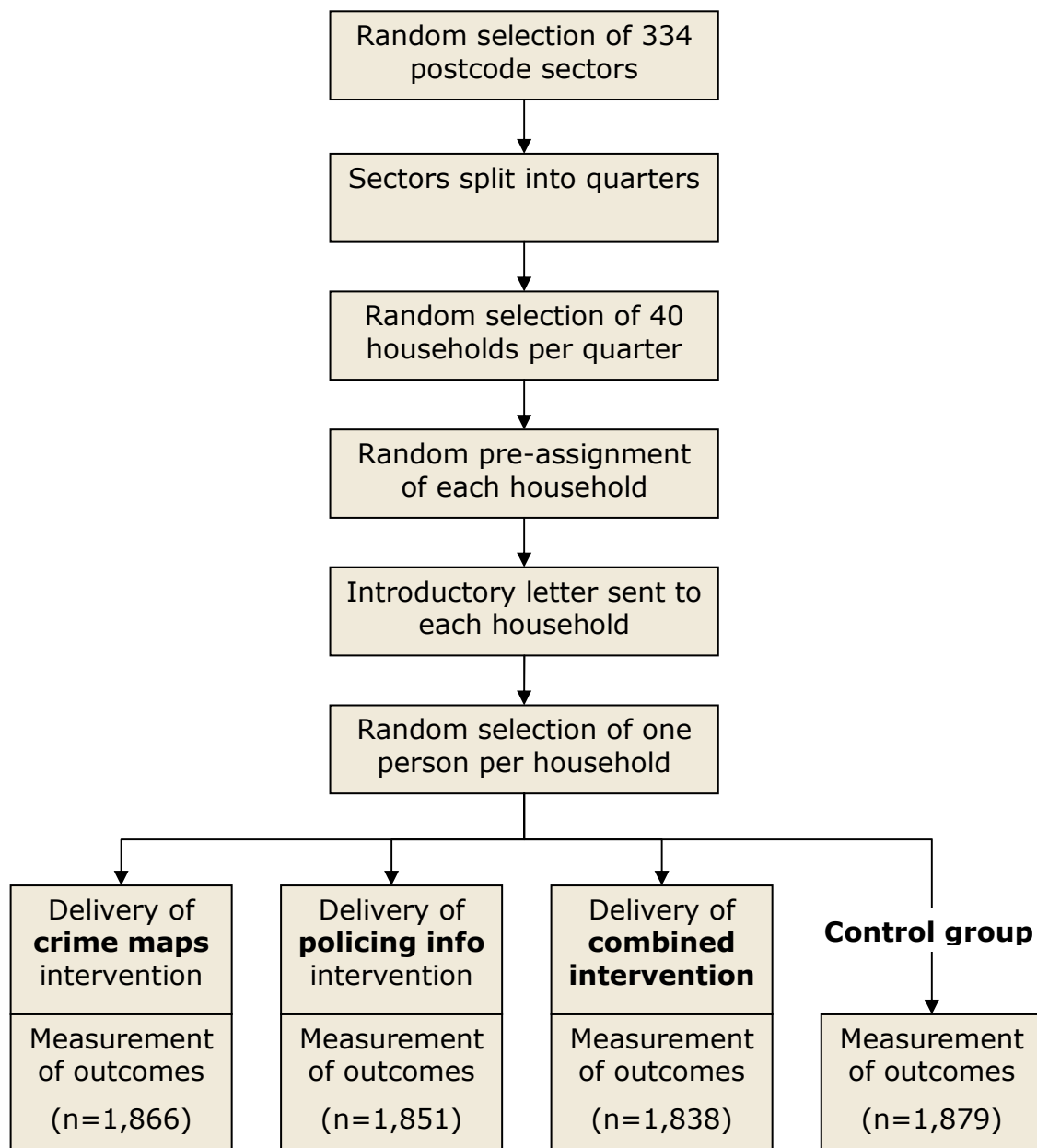
	Control	Crime maps	Policing info	Combined intervention
Sex				
Female	55.3	53.7	54.3	56.5
Male	44.7	46.3	45.7	43.5
Total	100.0	100.0	100.0	100.0
(n)	(1,878)	(1,866)	(1,851)	(1,837)
Age				
16-19	3.3	3.9	2.9	3.0
20-24	4.4	3.8	4.7	5.2
25-34	13.6	13.2	15.3	14.7
35-44	18.8	17.7	18.4	18.1
45-54	16.9	16.7	15.5	16.2
55-64	16.0	18.0	17.6	16.6
65+	27.0	26.7	25.6	26.2
Total	100.0	100.0	100.0	100.0
(n)	(1,876)	(1,865)	(1,849)	(1,835)
Ethnic group				
Asian or Asian British	4.1	3.6	3.0	3.8
Black or Black British	2.5	2.7	2.2	2.5
Chinese or other ethnic group	2.3	1.9	2.0	1.7
Mixed	1.0	1.1	1.1	0.9
White	90.1	90.7	91.7	91.1
Total	100.0	100.0	100.0	100.0
(n)	(1,874)	(1,857)	(1,845)	(1,834)
Working status				
In full-time work	39.7	39.0	37.2	37.8
In part-time work	13.4	12.2	13.6	13.2
In full-time education	3.7	3.3	2.9	3.3
Retired	29.7	32.0	30.8	30.6
Unemployed	4.6	5.0	5.5	5.0
Looking after family/home	7.2	6.8	7.7	7.4
Other	1.7	1.6	2.2	2.7
Total	100	100	100	100
(n)	(1,877)	(1,866)	(1,849)	(1,834)
Experience of crime and policing in previous 12 months*				
Being a victim of crime	20.4	20.0	19.6	21.2
Contacting the police (other than as a victim)	26.2	26.2	27.2	28.3
Being approached or stopped by the police	11.3	12.2	12.7	13.2
(n)	(1,879)	(1,866)	(1,851)	(1,838)

Note: Profiles have been adjusted to account for those who did not give answers.

*These categories are not mutually exclusive and so do not sum to 100 per cent.

During the fieldwork phase, the interviewers were required to select at random one person (aged 16 or over) from each household using a Kish grid. All the research participants were interviewed face-to-face using a standard CAPI (Computer-Assisted Personal Interview) approach. An overview of the sampling and assignment process is illustrated in Figure A1 (below). Further detail is also provided in the accompanying technical report.

Figure A1. Overview of the sampling and assignment process

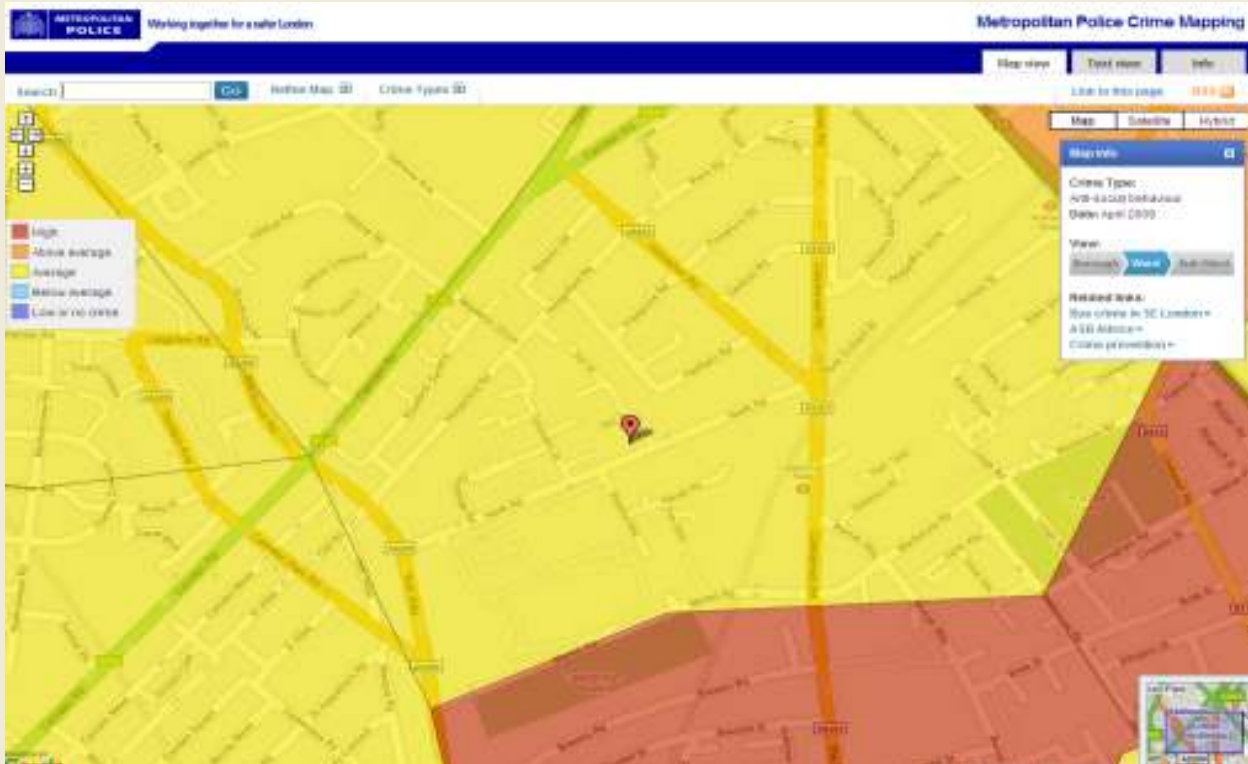
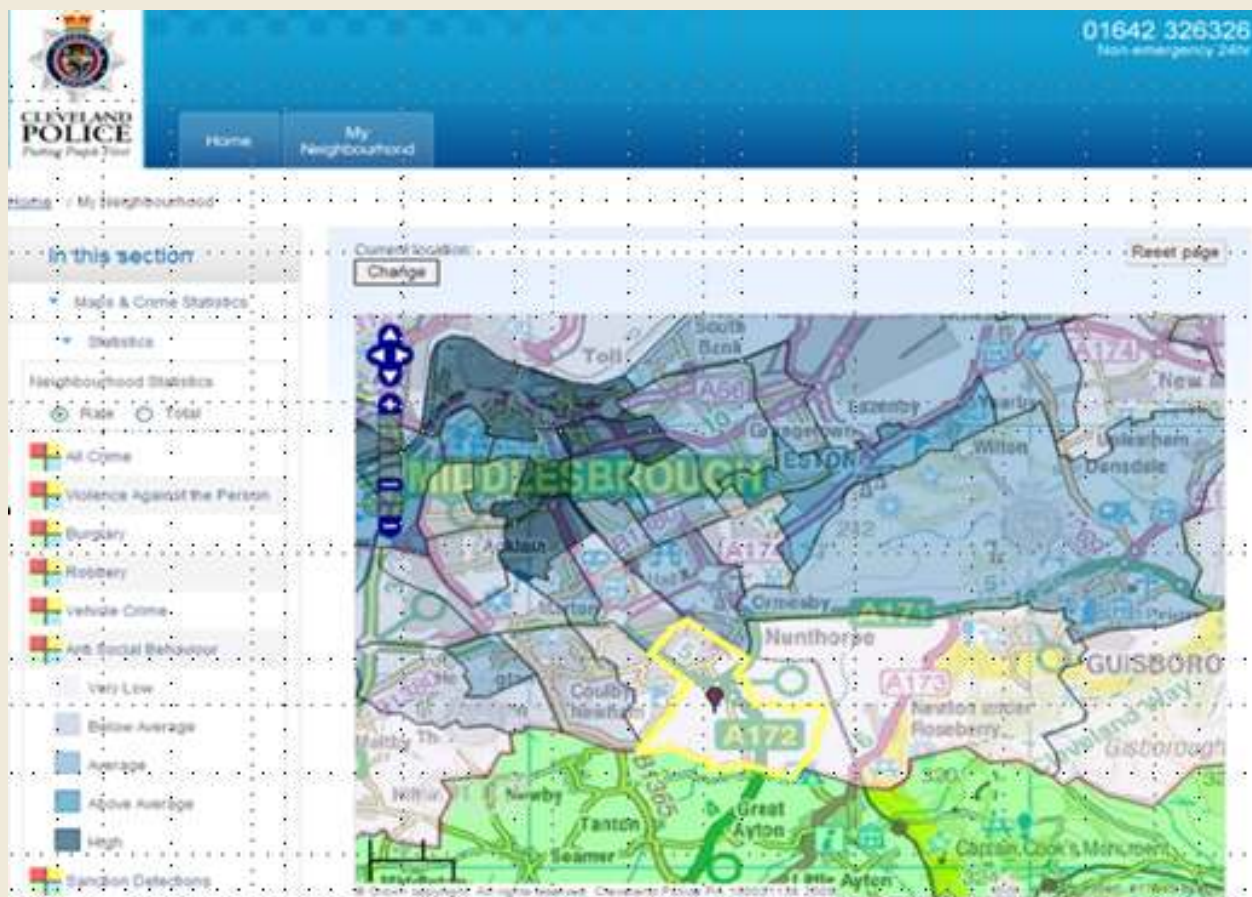


The interventions were delivered to those in the treatment groups as part of the interview process. After a small number of opening questions, participants were asked to look at the relevant material for their local area from the previous month.¹² The crime maps and/or policing information were displayed on the interviewer's laptop as a series of static screenshots. Example screenshots are presented in Figures A2 (p45) and A3 (p47). Participants were told what the material was supposed to display, but no further details or descriptions were provided.¹³ After the participants had finished looking at the material, they were asked a series of questions about crime and policing in the local area. The interview process followed a similar pattern for those in the control group, but without the delivery of an intervention.

¹² On average, respondents spent 55 seconds looking at the crime maps (excluding three outliers above 20 minutes), and 43 seconds looking at the policing information (excluding two outliers).

¹³ In some cases, interviewers may have helped participants to locate their home or a nearby landmark on the crime map to help them get their bearings.

Figure A2. Screenshot examples – crime maps





Gloucestershire Search

Print this page Help

Forest North SCT

Gloucestershire - Forest's Subordinate Division - Forest North SCT

All crime Crime types Find out more

16 Crime related to 100 recorded crime. The graph below shows that crime levels have generally been stable over the past 12 months. [View details](#)

The level of crime in this area is **average**

(compared with the rest of Gloucestershire)

[How was this calculated?](#)

The average number of crimes in this area has **decreased from 196.7 to 161 (18.1%)**

(compared to the same three month period last year)

	Jan	Feb	Mar	Average
2008	187	191	202	196.7
2009	157	156	151	161

View Total crimes Crime rates

Crime rates in this area for the last 12 months



Crime rates show number of crimes per 100 people



Map for West Heath & Longbridge neighbourhood [\(New Search\)](#)

The map shows the number of recorded anti-social behaviour incidents between April 2008 and March 2009 for smaller areas (census output areas) within your neighbourhood.

The colour coded key below shows how many anti-social behaviour incidents have occurred in each of these areas.

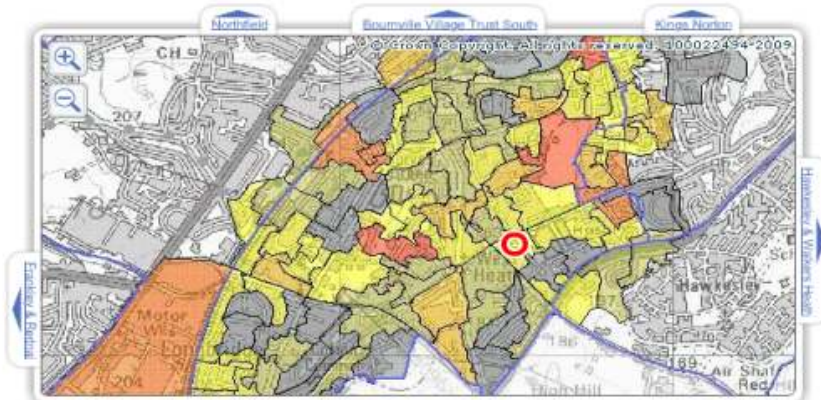
Crime Anti-Social Behaviour

Select the Anti-Social Behaviour types that will be shown and click the Apply button.

- Rowdy Behaviour (Alcohol)
- Rowdy Behaviour (Youth)
- Rowdy Behaviour (Alcohol & Youth)
- Rowdy Behaviour (Other)
- Nuisance Neighbours
- Vehicle Nuisance
- Hoax Calls
- Other

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Map Key

Count of ASB (Last 12 months)

- 82 to 136
- 45 to 62
- 33 to 45
- 18 to 33
- 9 to 18
- 1 to 9

Boundaries

- Neighbourhood
- Census Output Area

Points of Interest

- Police Stations
- Fire Stations
- Hospitals
- Neighbourhood Offices

Figure A3. Screenshot examples – policing information

METROPOLITAN POLICE Working together for a safer London

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MPS Home > Waltham Forest - Hoe Street Safer Neighbourhoods Team

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 Crime prevention advice
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 Waltham Forest teams

Team finder - please enter your postcode

SAFER NEIGHBOURHOODS
 LOCAL POLICE, LOCAL KNOWLEDGE


Welcome to the Hoe Street Safer Neighbourhoods Team site.

Our team is comprised of Police Officers and Police Community Support Officers (PCSOs) and we are dedicated to making your neighbourhood a safer place to live in, work in and visit. We listen and talk to you, and find out what affects your daily life and feelings of security. Our priorities are then set by the local community and we work with you and other agencies to find a lasting solution.

You can contact us via e-mail or phone. As part of the Policing Pledge we will respond to every message directed to us within 24 hours. However, we are not a 24-hour response team, so if it is an emergency please call 999.


For more information about local policing, visit the main Safer Neighbourhoods website.

Meet your team


 Sgt Antony Douglas


 PCSO Rebecca Elliott

Your neighbourhood



Locally agreed priorities

- Anti Social Behaviour by groups of youths
- Burglary
- Theft from motor vehicles

News

SURREY POLICE With Surrey safety

Call us on 0845 125 2222
 In an emergency always dial 999


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Your Neighbourhood Team
Merrow, Burpham, Slyfield & Bellfields
 Neighbourhood Specialist Officers - champions of crime reduction and community reassurance.

As NSOs, we work in a particular neighbourhood according to local needs. Our aim is to be locally known and knowledgeable; identify key local problems and be seen to make a difference.

Take a look at our [Latest Updates](#) or view the team [Profiles](#). View a PDF of our latest [Newsletter](#)


 PC Abby Gaston
 FINE 3651
 Phone: 0845 125 2222 Ext. 30647
[Send me an email](#)
[Read my profile](#)


 PCSO Michelle Linskey
 FINE 10687
 Phone: 0845 125 2222 Ext. 31572
[Send me an email](#)
[Read my profile](#)


 PCSO Mikki Mayhew
 FINE 13569
 Phone: 0845 125 2222 Fin. 13569
[Send me an email](#)
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Neighbourhood priorities

MERROW

- GD0722487 - Youth Disorder at Bushy Hill
- GD0846109 - Ongoing Issues Fitzjohn Close
- GD0866905 - Rowdy Nuisance Behaviour at Horse And Groom Public House Epsom Road
- GD0911227 - Speeding 3245 Merrow
- GD0911710 & GD0911708 - Speeding Boxgrove Road and Tangier Road
- GD091326 - Rowdy Nuisance Behaviour One Stop, Colingwood Crescent

BURPHAM

- GD081969 - Neighbour Nuisance Gosden Hill Road
- GD086751 - Rowdy Nuisance Behaviour at Sutherland Memorial Park and Burnet Avenue

BELLFIELDS

- GD087803 - Rowdy Nuisance Behaviour At Hazel Aye Park And Bus Shelter
- GD087802 - Riding Mini Moto /Quad Bikes around Lime Grove and Hazel Avenue
- GD087801 - Rowdy Nuisance Behaviour at Esso Garage, Woking Road

SLYFIELD



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The Policing Pledge

Northumbria Police is committed to tackling crime in your area.

We want to know what your issues are and how we can help solve them.

You can view our policing pledge here.

You can contact us via the 'Feedback' link or you can call the police on:

Call 999 if there is any danger or risk to life or a crime in progress.

Call 03456 043 043 for non-emergencies. This is a general number to contact the police and request information or advice.

Text 07786 200 814 for non-emergencies.

Berwick

Local news

- Police in Berwick seize mini motorbikes
ASBO for persistent offender in Berwick
Appeal for witnesses following an assault in Hexham

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Who's who



NORTHUMBRIA POLICE
Inspector Martin Baylis
Neighbourhood Inspector

I am the Neighbourhood Inspector for Berwick, Seahouses and Wooler Neighbourhood Team

More about the Neighbourhood Inspector

Your Neighbourhood Sergeants

- Sergeant Andy Pullen
Sergeant Keith Smith

Your Neighbourhood Beat Officers

- PC Peter Gasken
PC Keith Marchant
PC Susan Aitken
PC Andy Swinburne
PC John Lynch
PC Peter Lewington
PC Bill Garriock
PC Paul Temple
PC Andy Clark
PC Sarah Forster



NEIGHBOURHOOD POLICING CHICHESTER

Map of Districts NPT Home Page Talklets On/Off

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Chichester District Your Neighbourhood Policing Team The Midhurst and Petworth NPT

Your Neighbourhood Policing Team explained



Police Community Support Officer Craig Dunlop

Areas covered: Stedham and Harting



Police Community Support Officer Ian Luxford

Areas covered: Petworth, Town



Police Community Support Officer Clair Gamlin

Areas covered: Petworth, Fraistow, Ifold, Loxwood, Ebemoe, Kirdford, Lurgashall, Visborough Green, Northchapel, Balls Cross



Police Community Support Officer Jenn Morley

Areas covered: Petworth Ward - Byworth, Coates, Filleworth, Bury Ward - Baravington, Bignor, Bury, Duncton, Gratham, Sutton



Neighbourhood Policing



Neighbourhood Policing

District News Flash

- 26 May 2009 Fire at Littlehampton
23 May 2009 National Rogue Traders Week - Day of Action on West Downs

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Outcome measures and analysis

The outcome measures were largely derived from established questions used in the British Crime Survey and the MPS's Public Attitude Survey. Where possible, a small number of similar questions were combined together to create a 'scaled variable'. Scaled variables provide a more robust and accurate way of measuring multi-faceted, complex, and underlying perceptions compared to indicators based on a single question. Scales also enable more advanced and sensitive forms of analysis to be carried out, although the results tend to be much harder to describe because they do not fit the language of police performance. The measures are detailed in Table A4 (p50).

Analysis was carried out to identify whether there were any statistically significant differences between the treatment groups and control group in terms of these outcomes, and the size of any identified differences. The analysis consisted of a series of multilevel random effects linear regression models, a technique that was required to take account of the clustering in the data.

Outcomes not included in the trial

It was beyond the scope of the trial to test the impact of information on trust in official statistics and public behaviour, despite being important policy objectives. No attempt was made to measure trust in official government statistics largely because the theory of change was not clear. Assessing whether the interventions had changed the extent to which people would hold the police to account or take preventative action were considered to be too difficult to measure accurately using a cross-sectional survey. Hypothetical questions which attempt to measure planned behaviour would probably have been required, but these can provide unreliable indicators of actual behaviour. Moreover, RAI's focus group research indicated that participants did not talk about using information to hold the police to account for their performance. Further research could be carried out at a more local level to test each of these propositions following extensive development work to ensure the accuracy of the outcome measures.

Table A4. Outcome measures

Outcome	Type and scale	Paraphrased question(s)
Perceptions of the local police		
The local police perceived to be community-oriented	<ul style="list-style-type: none"> • Scaled measure • 1 to 10, positively scored 	<ul style="list-style-type: none"> • The local police listen to the concerns of local people • The local police understand the issues that affect this community • The local police deal with the things that matter to people in this community
The local police perceived to be effective	<ul style="list-style-type: none"> • Scaled measure • 1 to 10, positively scored 	<p>How effective the police in the local are in:</p> <ul style="list-style-type: none"> • Solving crimes • Preventing crime • Keeping order on the streets • Responding to emergencies
Confidence in the police	<ul style="list-style-type: none"> • Single question • 1 to 4, negatively scored 	<ul style="list-style-type: none"> • How good a job the police in the local area are doing
Perceptions of the local area		
Crime perceived to be a problem in the local area	<ul style="list-style-type: none"> • Single question • 1 to 4, positively scored 	How much of a problem crime is in the local area
Crime perceived to be increasing in the local area	<ul style="list-style-type: none"> • Single question • -2 to +2, positively scored 	Whether there is more, less, or about the same level of crime as 12 months ago
Perceptions of personal safety		
The perceived likelihood of being a victim of crime	<ul style="list-style-type: none"> • Scaled measure • 1 to 10, positively scored 	<p>The likelihood in the next 12 months of you:</p> <ul style="list-style-type: none"> • Seeing graffiti • Having property damaged by vandals • Having a car or van stolen • Being burgled • Being mugged or robbed
Worry about being a victim	<ul style="list-style-type: none"> • Single question • 1 to 4, positively scored 	How worried are you about being a victim of crime

Note: The scaled measures were created using latent trait analyses.

Limitations of the study

Like all studies, there are a number of limitations with the design of the trial:

- **Sample size** – In order for the trial to have external validity and to be nationally representative, a large sample size was required. One drawback of a large sample size, however, is that it can result in statistically significant differences being detected that are small and which may not be meaningful in a practical sense.
- **Sample representativeness** – While design of the sample was intended to be nationally representative, it is highly unlikely to be representative of the actual people who have accessed crime maps and policing information online. The trial does not, therefore, evaluate the impact of information provision on 'active users'. As discussed, the sample was under-representative of some socio-demographic characteristics (e.g. men and younger people).
- **The delivery of the intervention materials** – The intervention material was presented to the treatment groups via a series of static website images because it was not feasible to provide web access during the face-to-face interview. As a result, the trial did not completely simulate how people would ordinarily have accessed online information (e.g. by searching, scrolling and clicking). Moreover, the quality of the screenshots was likely to have been variable in practice (e.g. in terms of resolution, the amount of information displayed).
- **Media coverage** – Fieldwork was carried out in June/July 2009, only a short time after the policing of the G20 protests in London received widespread negative coverage in the national media. While the evidence on the impact of the news media on the public's perceptions of the police is relatively small and mixed (RAND 2009), it is possible that the press coverage might have affected the results of the trial.

Appendix B: Overall effects

Table B1. Overall effects on the local police being perceived to be community-oriented

	Coef	Std err	z	P> z	CI (95%)	
Crime map	0.13	0.06	1.95	0.05	0.00	0.25
Policing info	0.16	0.06	2.53	0.01	0.04	0.29
Combined	0.13	0.06	2.03	0.04	0.00	0.26
Constant	5.09	0.05	98.95	0.00	4.99	5.19
Sigma_u	0.44	0.03	0.38	0.50		
Sigma_e	1.86	0.02	1.83	1.89		
Rho	0.05	0.01	0.04	0.07		

Stata syntax: xtreg engage map info map_info, i(point) mle

Direction: higher score = intended outcome (response scale 1 to 10)

Table B2. Overall effects on the local police being perceived to be effective

	Coef	Std err	z	P> z	CI (95%)	
Crime map	0.03	0.06	0.53	0.60	-0.09	0.15
Policing info	0.02	0.06	0.25	0.80	-0.10	0.14
Combined	0.07	0.06	1.20	0.23	-0.05	0.19
Constant	5.44	0.05	108.08	0.00	5.34	5.54
Sigma_u	0.47	0.03	0.41	0.54		
Sigma_e	1.86	0.02	1.83	1.89		
Rho	0.06	0.01	0.05	0.08		

Stata syntax: xtreg eff map info map_info, i(point) mle

Direction: higher score = intended outcome (response scale 1 to 10)

Table B3. Overall effects on confidence in the police

	Coef	Std Err	z	P> z	CI (95%)	
Crime map	-0.02	0.03	-0.72	0.47	-0.07	0.03
Policing info	-0.03	0.03	-1.28	0.20	-0.09	0.02
Combined	-0.04	0.03	-1.33	0.18	-0.09	0.02
Constant	2.39	0.02	111.10	0.00	2.35	2.44
Sigma_u	0.20	0.01	0.17	0.23		
Sigma_e	0.79	0.01	0.78	0.80		
Rho	0.06	0.01	0.05	0.08		

Stata syntax: xtreg polrat map info map_info, i(point) mle

Direction: lower score = intended outcome (response scale 1 to 4)

Table B4. Overall effects on crime perceived to be problem in the local area

	Coef	Std Err	z	P> z	CI (95%)	
Crime map	-0.02	0.02	-1.14	0.26	-0.07	0.02
Policing info	0.02	0.02	0.74	0.46	-0.03	0.06
Combined	0.01	0.02	0.67	0.50	-0.03	0.06
Constant	1.15	0.02	52.05	0.00	1.11	1.19
Sigma_u	0.29	0.01	0.26	0.32		
Sigma_e	0.66	0.01	0.65	0.67		
Rho	0.16	0.01	0.13	0.19		

Stata syntax: xtreg crimeprob map info map_info, i(point) mle
 Direction: lower score = intended outcome (response scale 1 to 4)

Table B5. Overall effects on crime perceived to be increasing in the local area

	Coef	Std Err	z	P> z	CI (95%)	
Crime map	-0.05	0.02	-2.15	0.03	-0.09	0.00
Policing info	-0.02	0.02	-0.75	0.46	-0.06	0.03
Combined	-0.02	0.02	-0.66	0.51	-0.06	0.03
Constant	0.08	0.02	4.19	0.00	0.04	0.11
Sigma_u	0.14	0.01	0.12	0.17		
Sigma_e	0.67	0.01	0.66	0.68		
Rho	0.04	0.01	0.03	0.06		

Stata syntax: xtreg crimechange map info map_info, i(point) mle
 Direction: lower score = intended outcome (response scale -2 to +2)

Table B6. Overall effects on the perceived likelihood of being a victim of crime

	Coef	Std err	z	P> z	CI (95%)	
Crime map	0.04	0.07	0.52	0.61	-0.10	0.17
Policing info	0.16	0.07	2.37	0.02	0.03	0.30
Combined	0.15	0.07	2.24	0.03	0.02	0.29
Constant	3.38	0.06	53.58	0.00	3.25	3.50
Sigma_u	0.73	0.04	0.66	0.81		
Sigma_e	2.09	0.02	2.05	2.12		
Rho	0.11	0.01	0.09	0.13		

Stata syntax: xtreg risk map info map_info, i(point) mle
 Direction: higher score = intended outcome (response scale 1 to 10)

Table B7. Overall effects on worry about being a victim

	Coef	Std err	z	P> z	CI (95%)	
Crime map	0.01	0.03	0.52	0.61	-0.04	0.07
Policing info	0.04	0.03	1.48	0.14	-0.01	0.10
Combined	0.03	0.03	0.93	0.35	-0.03	0.08
Constant	2.48	0.02	100.51	0.00	2.43	2.52
Sigma_u	0.26	0.02	0.23	0.29		
Sigma_e	0.86	0.01	0.85	0.88		
Rho	0.08	0.01	0.07	0.10		

Stata syntax: xtreg worry map info map_info, i(point) mle

Direction: higher score = unintended outcome (response scale 1 to 4)

Appendix C: Interaction effects

Interaction effects for sex

Table C1. Interaction effects for females and males on the local police being perceived to be effective

	Coef	Std err	z	P> z	CI (95%)	
Crime map (male)	-0.10	0.09	-1.11	0.27	-0.28	0.08
Policing info (male)	-0.03	0.09	-0.29	0.77	-0.21	0.15
Combined (male)	-0.03	0.09	-0.34	0.74	-0.21	0.15
Female	0.13	0.09	1.47	0.14	-0.04	0.30
Map*female	0.26	0.12	2.08	0.04	0.02	0.50
Info*female	0.08	0.12	0.68	0.50	-0.16	0.33
Comb*female	0.19	0.12	1.52	0.13	-0.05	0.43
Constant	5.37	0.07	77.00	0.00	5.23	5.51
Sigma_u	0.47	0.03	0.42	0.54		
Sigma_e	1.85	0.02	1.82	1.89		
Rho	0.06	0.01	0.05	0.08		

Stata syntax: xtreg eff map info map_info female map_female info_female map_info_female, i(point) mle

Direction: higher score = intended outcome (response scale 1 to 10)

Table C2. Interaction effects for females and males on public confidence in the police

	Coef	Std err	z	P> z	CI (95%)	
Crime map (male)	-0.06	0.09	-0.65	0.51	-0.24	0.12
Policing info (male)	-0.01	0.09	-0.11	0.91	-0.19	0.17
Combined (male)	0.04	0.09	0.40	0.69	-0.15	0.22
Female	0.20	0.09	2.29	0.02	0.03	0.38
Map*female	0.27	0.13	2.10	0.04	0.02	0.51
Info*female	0.16	0.13	1.26	0.21	-0.09	0.41
Comb*female	0.09	0.13	0.68	0.50	-0.16	0.34
Constant	6.30	0.07	87.81	0.00	6.16	6.44
Sigma_u	0.50	0.03	0.44	0.57		
Sigma_e	1.87	0.02	1.84	1.90		
Rho	0.07	0.01	0.05	0.08		

Stata syntax: xtreg conf map info map_info female map_female info_female map_info_female, i(point) mle

Direction: higher score = intended outcome (response scale 1 to 4 – unlike other analyses)

Interaction effects for length of residence

Table C3. Interaction effects for length of residence on the local police being perceived to be community-oriented

	Coef	Std err	z	P> z	CI (95%)	
Crime map	-0.04	0.17	-0.24	0.81	-0.38	0.30
Policing info	-0.01	0.18	-0.04	0.97	-0.36	0.34
Combined	-0.22	0.17	-1.31	0.19	-0.56	0.11
Residence	-0.07	0.03	-2.84	0.00	-0.12	-0.02
Map*residence	0.04	0.04	1.00	0.32	-0.03	0.11
Info*residence	0.04	0.04	1.01	0.31	-0.03	0.11
Comb*residence	0.08	0.04	2.19	0.03	0.01	0.15
Constant	5.42	0.13	42.16	0.00	5.17	5.68
Sigma_u	0.44	0.03	0.38	0.51		
Sigma_e	1.86	0.02	1.83	1.89		
Rho	0.05	0.01	0.04	0.07		

Stata syntax: xtreg engage map info map_info residence map_residence info_residence map_info_residence, i(point) mle
 Direction: higher score = intended outcome (response scale 1 to 10)

Table C4. Interaction effects for length of residence on the local police being perceived to be effective

	Coef	Std err	z	P> z	CI (95%)	
Crime map	0.01	0.16	0.06	0.95	-0.31	0.32
Policing info	-0.04	0.17	-0.22	0.83	-0.36	0.29
Combined	-0.24	0.16	-1.54	0.12	-0.56	0.07
Residence	-0.09	0.02	-3.64	0.00	-0.13	-0.04
Map*residence	0.00	0.03	0.13	0.90	-0.06	0.07
Info*residence	0.01	0.03	0.35	0.73	-0.06	0.08
Comb*residence	0.07	0.03	2.12	0.03	0.01	0.14
Constant	5.83	0.12	49.37	0.00	5.60	6.06
Sigma_u	0.47	0.03	0.41	0.54		
Sigma_e	1.86	0.02	1.83	1.89		
Rho	0.06	0.01	0.05	0.08		

Stata syntax: xtreg eff map info map_info residence map_residence info_residence map_info_residence, i(point) mle
 Direction: higher score = intended outcome (response scale 1 to 10)

Table C5. Interaction effects for length of residence on crime perceived to be problem in the local area

	Coef	Std err	z	P> z	CI (95%)	
Crime map	0.08	0.06	1.41	0.16	-0.03	0.20
Policing info	0.10	0.06	1.68	0.09	-0.02	0.22
Combined	0.14	0.06	2.49	0.01	0.03	0.26
Residence	0.02	0.01	2.87	0.00	0.01	0.04
Map*residence	-0.02	0.01	-1.96	0.05	-0.05	0.00
Info*residence	-0.02	0.01	-1.52	0.13	-0.04	0.01
Comb*residence	-0.03	0.01	-2.39	0.02	-0.05	-0.01
Constant	1.04	0.04	23.19	0.00	0.95	1.13
Sigma_u	0.29	0.01	0.26	0.32		
Sigma_e	0.66	0.01	0.65	0.67		
Rho	0.16	0.01	0.14	0.19		

Stata syntax: xtreg crimeprob map info map_info residence map_residence info_residence map_info_residence, i(point) mle

Direction: lower score = intended outcome (response scale 1 to 4)

Table C6. Interaction effects for length of residence on crime perceived to be increasing in the local area

	Coef	Std err	z	P> z	CI (95%)	
Crime map	-0.01	0.06	-0.17	0.86	-0.14	0.11
Policing info	0.10	0.06	1.50	0.13	-0.03	0.22
Combined	0.12	0.06	1.94	0.05	0.00	0.24
Residence	0.02	0.01	2.54	0.01	0.01	0.04
Map*residence	-0.01	0.01	-0.62	0.53	-0.03	0.02
Info*residence	-0.02	0.01	-1.88	0.06	-0.05	0.00
Comb*residence	-0.03	0.01	-2.32	0.02	-0.06	0.00
Constant	-0.03	0.05	-0.71	0.48	-0.12	0.06
Sigma_u	0.14	0.01	0.12	0.17		
Sigma_e	0.67	0.01	0.66	0.68		
Rho	0.04	0.01	0.03	0.06		

Stata syntax: xtreg crimechange map info map_info residence map_residence info_residence map_info_residence, i(point) mle

Direction: lower score = intended outcome (response scale -2 to +2)

Interaction effects for victims of crime

Table C7. Interaction effects for victims on confidence in the police

	Coef	Std Err	z	P> z	CI (95%)	
Crime map	0.02	0.03	0.56	0.57	-0.04	0.07
Policing info	-0.02	0.03	-0.80	0.43	-0.08	0.03
Combined	0.00	0.03	-0.16	0.87	-0.06	0.05
Victim	0.44	0.05	9.74	0.00	0.35	0.53
Map*victim	-0.16	0.06	-2.41	0.02	-0.28	-0.03
Info*victim	-0.03	0.06	-0.44	0.66	-0.16	0.10
Comb*victim	-0.14	0.06	-2.19	0.03	-0.27	-0.01
Constant	2.30	0.02	99.89	0.00	2.25	2.34
Sigma_u	0.19	0.01	0.16	0.22		
Sigma_e	0.77	0.01	0.76	0.79		
Rho	0.06	0.01	0.04	0.07		

Stata syntax: xtreg polrat map info map_info victim map_victim info_victim map_info_victim, i(point) mle

Direction: lower score = intended outcome (response scale 1 to 4)

Table C8. Interaction effects for victims on the perceived likelihood of being a victim of crime

	Coef	Std err	z	P> z	CI (95%)	
Crime map	0.02	0.07	0.24	0.81	-0.13	0.16
Policing info	0.08	0.07	1.06	0.29	-0.07	0.22
Combined	0.05	0.08	0.68	0.50	-0.10	0.20
Victim	1.13	0.12	9.56	0.00	0.89	1.36
Map*victim	0.11	0.17	0.69	0.49	-0.21	0.44
Info*victim	0.46	0.17	2.73	0.01	0.13	0.79
Comb*victim	0.45	0.17	2.74	0.01	0.13	0.78
Constant	3.15	0.06	48.74	0.00	3.02	3.27
Sigma_u	0.68	0.04	0.61	0.75		
Sigma_e	2.02	0.02	1.98	2.05		
Rho	0.10	0.01	0.08	0.12		

Stata syntax: xtreg risk map info map_info victim map_victim info_victim map_info_victim, i(point) mle

Direction: higher score = intended outcome (response scale 1 to 10)

Table C9. Interaction effects for victims on worry about being a victim

	Coef	Std err	z	P> z	CI (95%)	
Crime map	0.02	0.03	0.61	0.54	-0.04	0.08
Policing info	0.04	0.03	1.41	0.16	-0.02	0.11
Combined	0.00	0.03	0.09	0.93	-0.06	0.06
Victim	0.38	0.05	7.76	0.00	0.29	0.48
Map*victim	-0.01	0.07	-0.13	0.90	-0.15	0.13
Info*victim	0.01	0.07	0.17	0.87	-0.13	0.15
Comb*victim	0.10	0.07	1.44	0.15	-0.04	0.24
Constant	1.40	0.03	53.90	0.00	1.35	1.45
Sigma_u	0.24	0.01	0.21	0.27		
Sigma_e	0.85	0.01	0.83	0.86		
Rho	0.07	0.01	0.06	0.09		

Stata syntax: xtreg worry map info map_info victim map_victim info_victim map_info_victim, i(point) mle

Direction: higher score = unintended outcome (response scale 1 to 4)

Interaction effects for people living in higher crime areas

Table C10. Interaction effects for people living in higher crime areas on the local police being perceived to be community-oriented

	Coef	Std Err	z	P> z	CI (95%)	
Crime map	-0.12	0.12	-1.00	0.32	-0.36	0.12
Policing info	0.07	0.12	0.61	0.54	-0.16	0.31
Combined	-0.03	0.12	-0.22	0.83	-0.27	0.21
Crime rate	-0.20	0.04	-4.70	0.00	-0.28	-0.11
Map*crime rate	0.12	0.05	2.36	0.02	0.02	0.23
Info*crime rate	0.04	0.05	0.83	0.41	-0.06	0.15
Comb*crime rate	0.08	0.05	1.51	0.13	-0.02	0.18
Constant	5.48	0.10	56.45	0.00	5.29	5.67
Sigma_u	0.40	0.03	0.35	0.47		
Sigma_e	1.86	0.02	1.83	1.89		
Rho	0.05	0.01	0.03	0.06		

Stata syntax: xtreg engage map info map_info crime crime_map crime_info crime_mapinfo, i(point) mle

Direction: higher score = intended outcome (response scale 1 to 10)

Table C11. Interaction effects for people living in higher crime areas on confidence in the police

	Coef	Std Err	Z	P> z	CI (95%)	
Crime map	0.07	0.05	1.47	0.14	-0.02	0.17
Policing info	0.04	0.05	0.72	0.47	-0.06	0.13
Combined	0.05	0.05	0.91	0.36	-0.05	0.14
Crime rate	0.09	0.02	5.00	0.00	0.05	0.12
Map*crime rate	-0.05	0.02	-2.15	0.03	-0.09	0.00
Info*crime rate	-0.03	0.02	-1.61	0.11	-0.08	0.01
Comb*crime rate	-0.04	0.02	-1.90	0.06	-0.08	0.00
Constant	2.22	0.04	54.77	0.00	2.14	2.30
Sigma_u	0.19	0.01	0.16	0.21		
Sigma_e	0.79	0.01	0.78	0.80		
Rho	0.05	0.01	0.04	0.07		

Stata syntax: xtreg polrat map info map_info crime crime_map crime_info crime_mapinfo, i(point) mle

Direction: lower score = intended outcome (response scale 1 to 4)

Table C12. Interaction effects for people living in higher crime BCUs on crime perceived to be increasing in the local area

	Coef	Std Err	z	P> z	CI (95%)	
Crime map	0.02	0.04	0.55	0.58	-0.06	0.11
Policing info	-0.04	0.04	-0.89	0.37	-0.12	0.05
Combined	0.06	0.04	1.32	0.19	-0.03	0.14
Crime rate	0.02	0.01	1.45	0.15	-0.01	0.05
Map*crime rate	-0.04	0.02	-1.96	0.05	-0.07	0.00
Info*crime rate	0.01	0.02	0.61	0.54	-0.03	0.05
Comb*crime rate	-0.04	0.02	-1.96	0.05	-0.07	0.00
Constant	0.03	0.03	0.94	0.35	-0.04	0.10
Sigma_u	0.14	0.01	0.12	0.17		
Sigma_e	0.67	0.01	0.66	0.68		
Rho	0.04	0.01	0.03	0.06		

Stata syntax: xtreg crimechange map info map_info crime crime_map crime_info crime_mapinfo, i(point) mle

Direction: lower score = intended outcome (response scale -2 to +2)

Appendix D: Results of quantile regression

Figure D1. The results of quantile regression for crime maps, policing information, and combined intervention groups

