Thames Valley Police whole force hot spots policing randomised controlled trial

Assessing the effectiveness of visible patrol in hot spots of serious violence and knife crime.

Key details

Status	Ongoing
Lead institution	[Thames Valley Police](#)
Principal researcher(s)	Tori Olphin vrutechnicalsupport@thamesvalley.police.uk
Police region	South East
Level of research	Professional/work based
Project start date	April 2023
Date due for completion	October 2024

Hypothesis

Patrolling hot spots of violence using targeted patrols of areas, using a mobile phone-based tasking app, causes reductions in violent crime on days where hot spots are randomly allocated for patrols.

Geographical area

34 hot spots with 67 patrol areas, spread across the Thames Valley Police (TVP) force area.

Target sample size

The minimum total sample size will be 4,042 (2,021 in both the test and control groups).

Participants - inclusion criteria

Hot spots where there was a prison or hospital accounting for crimes were removed, so they would be ineligible for the experiment. This was done by Nick Portnell using Ordnance Survey sites, and then by additional manual search in ArcGIS desktop.

Interventions

Hot spots will be randomly allocated for patrol. The treatment delivery is patrol by all officers, tasked by the hot spots policing app (over and above business-as-usual policing). The control delivery is no patrols, tasked by the app to any officer (that is, business-as-usual policing in those areas on control days).

Study design

Cases have been pre-randomised using the sample() function in R. The randomisation is a simple randomisation on a daily basis to ensure the number of treatment hot spots are consistent. (Half of the hot spots are allocated for treatment each day. For experimental purposes, and to fit with trends of when crime occurs and patrols are required, days run from 06:00:00 to 05:59:59).

The hot spots have been randomised at their overall level. Where more than one patrol makes up a hot spot area, all patrol areas within that hot spot will be allocated for patrol on any day where the hot spot is allocated for patrol.

For ease of communication, the patrol areas are being referred to as 'hot spots' in communication with officers, but the area of analysis is the overall hot spot level. Each day, there will be:

- 17 hot spots randomly allocated for treatment
- 17 hot spots randomly allocated to control each day

Outcome measures

Main outcome measures are:

- count of violent crime occurrences
- count of violent crime and sexual assault occurrences

Secondary outcome measures are:

- count of all crime occurrences
- count of most serious violent crime offences
- count of sexual assault occurrences
- count of knife enabled crime occurrences
- count of acquisitive crime occurrences
- count of all crime occurrences not including police initiated crime (such as possession)
- count of possession style offences, separated into weapons and drugs

Tags

- Hot spots policing
- Knife crime