

# If the Shoe Fits: A randomised control trial measuring the effectiveness of digitised in-custody footwear technology compared with paper based methods

What are the efficiency and crime solving benefits as a result of deploying Tread Finder technology in a live custody environment, compared with the paper based alternative?

## Key details

Status	Complete
Lead institution	<a href="#">University of Cambridge</a>
Principal researcher(s)	Julie Henderson <a href="mailto:research.map@college.police.uk">research.map@college.police.uk</a>
Police region	Eastern
Level of research	Masters
Project start date	May 2017
Date completed	November 2017

## Hypothesis

This project will repeat a previous lab-based RCT into a field environment testing the previous outcomes that Tread Finder is 98% faster and 92% cheaper than the alternative paper-based alternative. Additionally that Tread Finder will produce real-time intelligence links within 15 minutes of the digital sample being taken compared with hours, days and weeks observed using paper based alternative.

## Geographical area

London Borough of Barnet, North London, Metropolitan Police.

## Target sample size

128 samples.

## Participants - inclusion criteria

All persons arrested for a recordable crime.

## Interventions

Automated randomised allocation

## Study design

Randomised controlled field trial, with allocation of footwear samples into a digitised in-custody footwear technology or the business-as-usual, paper-based model. Randomisation using the Cambridge Randomiser 2.0.

## Summary of findings

This RCT provides evidence which supports the hypotheses:

- a) the average speed of obtaining a Tread Finder Sample and a paper-based sample are similar – approximately 4 minutes – however the Tread Finder arm provided pattern matching and coding within the capture process, whereas the paper based method does not
- b) the average time to obtain an automated intelligence package using the treatment is 08:40 minutes, while nil packages were detected using the comparison system.

Evidentiary materials from Tread Finder are linked to 16 intelligence links out 64 samples, with nil returns in the paper-based arm of the experiment.