HOUSES OF PARLIAMENT
PARLIAMENTARY OFFICE OF SCIENCE & TECHNOLOGY

POSTbrief
Number 14, September 2015

Body-Worn Video in UK Policing

By Leila Jameel
and Sarah Bunn

Inside:

www.parliament.uk/post | **020 7219 2840** | **POST@parliament.uk** | **@POST_UK**
Image credit: Reveal

POSTbriefs are responsive policy briefings from the Parliamentary Office of Science and Technology based on mini literature reviews and peer review.

Body-Worn Video

Body-worn video (BWV) is the use of cameras to record police-public encounters. It aims to provide enhanced evidence capture and to improve the accountability and transparency of police conduct. Cameras are attached to officers' clothing or equipment and switched on during patrols or at the scene of an incident to record specific incidents or activity.

The Home Secretary has highlighted BWV as a technology for future investment, as a means to help save police time and to improve working practices.[1]

This brief explains how police BWV is used and examines the evidence to support its use. It also discusses potential benefits, and highlights possible issues and challenges for the successful application of police BWV in the UK.

Technology and Operational Use

The Home Office's Centre for Applied Science and Technology has developed technical guidelines for the video cameras to ensure the best quality of recording, and its compatibility between systems.[2] The guidance outlines the essential features of police BWV devices:

- simultaneous and time synched video and audio recordings
- files can be exported without damage to the data quality
- devices do not allow files to be deleted or edited
- recordings should be time and date stamped.

The College of Policing (the professional body for policing) has also developed national guidelines for the use of BWV.[3] The key points are summarised below.

Overt Use Only

BWV must be used overtly and not be hidden or concealed. Police forces are instructed to advertise the intention to begin trialling or piloting BWV prior to using it. Police officers are instructed to alert orally those people who might be recorded when BWV is in operation.

Incident-Specific Recording

The continuous non-specific use of BWV is not permitted. Police officers are instructed to make incident-specific decisions about when to record, although there should be a tendency towards recording incidents, particularly when conducting a stop and search and when attending domestic abuse incidents.

1 Home Secretary's Speech to the Police Federation, 2015
2 Body Worn Video Technical Guidance, Home Office Centre for Applied Science and Technology, Home Office, May 2014.
3 Body Worn Video, College of Policing, August 2014

Data Management

Non-evidential recordings must be destroyed after 31 days. Evidential footage must be retained in accordance with existing data protection requirements.

Evidential Capture & Use

Police BWV does not replace traditional forms of collecting evidence, such as written statements and interview; it should be used to complement and support them.

The College of Policing has also recently developed a paper calling for a strategic review of 'digital evidence', to ensure that there is a co-ordinated and consistent approach to the capture, storage and sharing of digital evidence, including BWV footage.[4] It also highlights that necessary infrastructure and governance needs to be implemented, and that there is currently a lack of appropriate equipment available. It is considered that addressing these concerns is essential for enabling BWV use to develop, while maintaining appropriate standards and ensuring cost-effectiveness.

Randomised Controlled Trials in Criminal Justice

Well conducted randomised controlled trials (RCTs) produce rigorous results by randomly allocating participants to either an intervention or a control condition. They are designed to minimise the effects of confounding factors, so that differences between the two groups can be more clearly attributed to the intervention rather than another factor.

An RCT design may not always be appropriate or possible when testing criminal justice interventions, or other social and public policies. Such interventions and policies are typically complex to administer, and as there are often multiple factors involved, the results can be more difficult to explain. Ethical objections are also often raised to using RCTs in criminal justice or other social or public policy settings. These include the withholding of potentially beneficial interventions or sanctions from vulnerable or dangerous people. However, some argue that to continue to administer interventions and policies without conducting RCTs to examine if and how they work is also unethical.[5]

Several studies have assessed various aspects of police BWV, some of which have used a RCT design, the most rigorous method for assessment of whether an intervention is effective[6] (including trials by Essex Police and the Metropolitan Police, which are discussed later), and others have used less robust methods. The differences in the study designs, and the strengths and limitations of the different approaches, are discussed below.

4 Digital evidence strategy: capture, storage and sharing. A paper written by Chief Constable Giles York QPM for the Professional Committee of the College of Policing, July 2015. A copy was provided to POST by the College of Policing upon request.

5 Why Government Needs More Randomized Controlled Trials: Refuting the Myths, Laura and John Arnold Foundation, July 2015

6 Hollins, C.R. (2008) Evaluating Offending Behaviour Programmes: Does Randomisation Glister? Criminology & Criminal Justice, 8(1), 89-106

Other Types of Evidence

In the case of police BWV, most evidence examining its use is derived from police pilot programmes, as opposed to RCTs. Such pilots typically do not involve randomisation, and some lack control conditions with which to compare effects, and they tend to rely more heavily on pre- and post-intervention comparisons. Without a comparison group, or the random allocation of intervention versus control conditions, there is less certainty that changes observed pre- versus post-intervention are due to the intervention, as opposed to other factors.

Pilots are also more likely to be tailored to the specific interests of the police force and community in question. They tend to focus on fine-tuning operational challenges and assessing the feasibility of implementing BWV on a larger scale, rather than providing scientific evidence to support the use of the technology in specific circumstances.

Testing the Effects of Body-Worn Video in UK Policing

Despite the limitations of the current evidence available, results from a RCT found that police BWV:

- improved the efficiency of delivering criminal justice for domestic abuse cases (via increased early pleas or higher prosecution rates).[7]

Evidence from other studies, which did not use an RCT design, suggests that police BWV may:

- provide a new method with which to collect evidence[8]
- improve public confidence[9]
- reduce crime incidence[8,9,10]
- reduced the number of complaints made against police officers[8, 11]
- provide a useful tool for the training and professional development of police officers.[12]

The main findings from RCTs and pilots undertaken so far are summarised in the following sections.

7 The Essex Body Worn Video Trial, The Impact of Body Worn Video on Criminal Justice Outcomes of Domestic Abuse Incidents, College of Policing, October 2014
8 Evaluation of the Introduction of Personal Issue Body Worn Video Cameras (Operation Hyperion) on the Isle of Wight, Final Report to Hampshire Constabulary, February 2015
9 Body Worn Video Projects in Paisely and Aberdeen: Self Evaluation, Evaluation Report, ODS Consulting, July 2011
10 Plymouth Head Camera Project: Public Relations Evaluation, Social Research & Regeneration Unit, University of Plymouth, June 2007
11 Body Worn Video Projects in Paisely and Aberdeen: Self Evaluation, Evaluation Report, ODS Consulting, July 2011
12 Met Briefing Note: Body Worn Video, May 2014

A study examining the impact of BWV on police use-of-force and complaints made by the public was conducted in California and the results were published in 2014 (see Box 1).[13] While the trial has some limitations, and the mechanisms underpinning the findings are not clear, the results suggest that BWV may be a useful tool in reducing the use of physical force by police officers and complaints against the police.

In the US trial, officers were instructed to keep the cameras on for the whole of their 12 hour shift. According to College of Policing guidance, continuous recording via police BWV is not permitted in the UK, but should be incident-specific. There are a number of issues relating to this, notably the requirement to comply with the Data Protection Act, which insists on proportionality about obtaining personal data. In all other RCTs and pilots conducted in the UK and discussed below, cameras were used in an incident-specific manner.

Box 1. The Rialto Randomised Control Trial, California, US

The first study examining the use of police BWV to be published in a scientific journal was conducted in California, USA in 2014. This examined the impact of BWV by measuring the number of incidents of police use-of-force and complaints made by the public over a 12-month period for one police force. An RCT design was used, where officers' shifts were assigned to either an 'intervention' (with cameras recording all contacts with the public; number = 489 shifts) or a 'control' (without cameras; number = 499 shifts) condition. The main findings were that BWV reduced police use-of-force by approximately 50%.

An overall reduction in complaints was also found, from 24 in the year before the trial to three in the year of the trial. However, it is difficult to interpret how meaningful the result is, as the reduction in complaints was found in both conditions, with and without the cameras. Owing to the small size of the police force, the trial design assigned police shifts, rather than police officers, to intervention or control conditions. Therefore, the same police officers sometimes wore cameras during their shift, and sometimes did not, throughout the trial period. The authors hypothesised that this method of police shift assignment may have resulted in a "spill-over effect", whereby participation in the trial may have positively affected police officers' behaviour even when they were not wearing the cameras, resulting in fewer complaints overall.

The authors speculate that video-taping police-public interactions may result in 'socially desirable' responses, whereby when individuals know they are under surveillance they tend to exhibit more desirable behaviours and are more likely to follow the "rules of conduct". Further research is required to understand this, and to examine whether and how BWV affects police officers' or the public's behaviour, or how effects on both parties may interact.

13 Ariel, B., Farrar, W.A. & Sutherland, A. (2014) The Effect of Police Body-Worn Cameras on Use of Force and Citizens' Complaints Against the Police: A Randomized Controlled Trial, Journal of Quantitative Criminology, 1-27

The Essex Police Domestic Violence RCT, January-May 2014[14]

The College of Policing and Essex Police designed a RCT to assess the impact of police BWV on criminal justice outcomes of domestic abuse incidents. Previous research highlighted that attrition of domestic abuse cases in the criminal justice process is a particular issue: for example, for one police force, only 7% of incidents resulted in a charge.[15]

In this trial, police officers rather than police shifts were randomly assigned to the 'intervention' (wearing a camera: 70 officers) or 'control' condition (without a camera: 238 officers).

During the trial, police attended 30,480 incidents, 25% of which involved domestic abuse. There were no differences between the two conditions in the proportion of incidents classified as domestic abuse, nor the number of subsequent sanctions. However, there was a difference in the type of sanctions: a higher proportion of incidents in the intervention condition resulted in a criminal charge (81% versus 72%), as opposed to other forms of police action, such as a issuing a penalty or a caution.

When interviewed, officers highlighted the benefits that BWV offered in collecting evidence, in particular for the accurate capture of injury or damage caused and the emotional states of the suspects and victims.

There are several limitations to this study. First, officers were instructed to turn on cameras for specific incidences. Therefore the researchers had little control over how or when cameras were deployed and the authors noted the low usage of the cameras. Second, in almost three quarters of all incidents during the trial period, officers from the two conditions attended the same incident. The presence of an officer wearing a BWV at the scene, especially for occasions when the cameras were recording, may have affected how officers in the control condition behaved, resulting in a similar 'spill-over' effect to that described in the Rialto trial. This highlights the complexities of assessing the impact of police BWV in complex 'real world' settings. Finally, the report also discusses whether a criminal sanction is always the right outcome for domestic abuse victims, and whether the use of BWV has positive or negative consequences for victims.

Despite these limitations, the trial indicates that police BWV may be an effective tool for increasing the probability of an individual being charged with a domestic abuse offence, and the likelihood that cases are subsequently prosecuted in court.

14 The Essex Body Worn Video Trial, The Impact of Body Worn Video on Criminal Justice Outcomes of Domestic Abuse Incidents, College of Policing, October 2014

15 Hester, M. & Westmarland, N. Tackling Domestic Violence: Effective interventions and Approaches, Home Office, February 2005

The Metropolitan Police RCT, London, April 2014-15[16]

The Metropolitan police has conducted the largest trial of police BWV in the UK to date. Using an RCT design, approximately 500 police officers were randomly assigned to the intervention condition (wore a camera whilst on duty) and 750 officers to the control condition (did not wear a camera whilst on duty) across 10 London boroughs. The pilot is currently being audited and reviewed by the Mayor's Office for Policing and Crime and the College of Policing; the results are expected later in 2015.

Key Findings from other UK Pilot Programmes

Several forces have completed pilots (which lack randomisation and control conditions) to assess the impact of BWV on policing and the main findings are summarised here.

Isle of Wight, Hampshire Constabulary, 2013-14[17]

- There was a small reduction in overall incident occurrence, and in incidents classified as crimes, when comparing before and after pilot and with other regions.
- When interviewed, police officers suggested BWV should be focused on incidents most positively affected by BWV, such as low-level and high volume incidents of public order and antisocial behaviour.
- When the public was surveyed, 90% thought BWV could help the police to gather evidence, identify criminals and increase the likelihood of successful convictions.

Renfrewshire & Aberdeen, Scotland, 2006-07[18]

- This pilot showed some evidence for a reduction in crime, and a reduction in assaults on police officers, when BWV was used.
- Cases involving the use of BWV were more likely to be resolved at an early stage via a higher rate of guilty pleas.
- Approximately half of the public surveyed said they felt safer as a result of police BWV.

16 Met Briefing Note: Body Worn Video, May 2014
17 Evaluation of the Introduction of Personal Issue Body Worn Video Cameras (Operation Hyperion) on the Isle of Wight, Final Report to Hampshire Constabulary, February 2015
18 Body Worn Video Projects in Paisely and Aberdeen: Self Evaluation, Evaluation Report, ODS Consulting, July 2011

Devon & Cornwall, Plymouth, 2006-2007[19]

- This involved surveying members of the public to ask about their perceptions of the impact of a recent police BWV pilot.
- Some of those surveyed reported noticing reductions in violence and anti-social behaviour.
- Most of those surveyed thought BWV would help the police prevent crime.

Implementation Challenges

There seems to be public support for the use of police BWV, and some limited evidence to support its positive impact on frontline policing. There are also concerns about its rapid adoption.

Investment & Capability

The police BWV benefit-cost ratio has been estimated as approximately $4:1 in the US.[20] This calculation is based on the observed reduction in spending on litigation costs and other expenses associated with complaints of police use-of-force, which are thought to decrease when officers are wearing cameras. However, if all UK police forces were to use BWV, significant investment in equipment and training would be needed in ensuring it is efficiently, effectively and fairly deployed.[21]

Evidence Capture & Use

The College of Policing's guidelines suggest that BWV material should be used to corroborate and support, rather than replace traditional forms of evidence such as written statements or interview.[22] Work is in progress to look at the use of BWV in suspect interviews outside of custody. However, it remains unclear how the increasing availability of BWV evidence will affect perceptions of traditional forms of evidence, and if BWV evidence will be given more weight in court. For example, DNA and other types of forensic evidence are typically viewed by jurors as more accurate and persuasive, which has been termed the 'CSI effect'.[23,24] Mechanisms also need to be reviewed to ensure

19 Plymouth Head Camera Project: Public Relations Evaluation, Social Research & Regeneration Unit, University of Plymouth, June 2007
20 Ariel, B., Farrar, W.A. & Sutherland, A. (2014) The Effect of Police Body-Worn Cameras on Use of Force and Citizens' Complaints Against the Police: A Randomized Controlled Trial, Journal of Quantitative Criminology, 1-27
21 White, M.D. (2014) Police Officer Body-Worn Cameras: Assessing the Evidence Washington, DC: Office of Community Oriented Policing Services
22 Body Worn Video, College of Policing, August 2014
23 Smith, L & Bull, R. (2012) Identifying and Measuring Juror Pre-trial Bias for Forensic Evidence: Development and Validation of the Forensic Evidence Evaluation Bias Scale. Psychology, Crime & Law, 18(9), 797-815
24 Lieberman, J. D., Carrell, C. A., Miethe, T. D., & Krauss, D. A. (2008) Gold Versus Platinum: Do Jurors Recognize the Superiority and Limitations of DNA Evidence Compared to Other Types of Forensic Evidence? Psychology, Public Policy, and Law, 14(1), 27

that BWV evidence can be efficiently, effectively and fairly used in court.[25]

Resistance to Change

Some front-line officers fear that BWV, and other technological developments, pose a threat to their independence and use of professional discretion in managing incidents. Conversely, it has been argued that BWV may provide increased protection for officers.[26]

Research in the Real-World

The Essex trial highlighted that ensuring officers complied in switching on the video at appropriate times was a challenge, which may be indicative of 'real-world' implementation difficulties.[27] Testing the technology in an operational policing environment is important to establish if claims made about police BWV are valid. From a study design perspective, cameras would ideally be switched on at all times to minimise the impact of 'officer discretion', a factor that could potentially influence results. However, owing to ethical and legal constraints, the officers in the UK RCTs and pilots discussed in this note were only permitted to turn their cameras on for specific incidents, rather than recording at all times.

Operational Use

While it may not be appropriate to record at all times, such as in incidents concerning vulnerable persons or during general patrolling duties, some believe that the flexibility of guidelines, regarding when the cameras should be switched on or off, might open its use up to abuse by officers.[28]

Privacy vs Legitimacy

The use of BWV poses new challenges for privacy rights. However, it is unclear if the concerns about increased surveillance will be outweighed by the associated legitimacy benefits of increased police accountability.[29,30] Further research is required to assess the extent of public support for the adoption of BWV, and the College of Policing guidelines suggest that forces should consult locally with their communities.[31]

25 White, M.D. (2014) Police Officer Body-Worn Cameras: Assessing the Evidence Washington, DC: Office of Community Oriented Policing Services
26 Drover, B. & Ariel, B. (2015) Leading and Experiment in Body-Worn Video Cameras, International Criminal Justice Review, 25(1), 80-97
27 The Essex Body Worn Video Trial, The Impact of Body Worn Video on Criminal Justice Outcomes of Domestic Abuse Incidents, College of Policing, October 2014
28 Body Worn Cameras Briefing, Big Brother Watch, July 2014
29 Drover, B. & Ariel, B. (2015) Leading and Experiment in Body-Worn Video Cameras, International Criminal Justice Review, 25(1), 80-97
30 Body Worn Cameras Briefing, Big Brother Watch, July 2014
31 Body Worn Video, College of Policing, August 2014

Summary

- A number of RCTs and pilots have been conducted in the UK.
- The limited evidence available suggests that police BWV may be useful in several ways: improving public confidence in the police, to enhance evidence collection and streamline some processes in the criminal justice system.
- There are operational challenges to ensure that the potential costs do not outweigh the benefits. Questions remain regarding whether enhancing the police's use of BWV is in the public's best interest.