






# Body-worn cameras

Devices worn by officers to collect audio and video data during police encounters with the public.

First published

10 June 2021

Effect scale	Quality of evidence				
	Effect Impact on crime	Mechanism How it works	Moderator Where it works	Implementation How to do it	Economic cost What it costs
 Mixed findings	 Very strong	 Low	No information	 Low	 Low

## Focus of the intervention

Body-worn cameras (BWCs) are recording devices worn by officers. They are capable of collecting audio and video data during police encounters with members of the public. Guidance relating to BWC deployment and use differs across forces and jurisdictions. This summary provides a review of the effectiveness of using these devices to reduce crime. Neither review was primarily focused on crime reduction outcomes, with most outcomes measured relating to police processes and activities.

The summary is based on two systematic reviews. Review one consisted of a meta-analysis combining 30 studies. 17 studies were conducted in the USA, two in the UK, and one in Uruguay. The locations of the remaining 10 studies were not reported.

The studies examined the effects of BWC on assaults and resistance against officers (15 studies) and arrests (13 studies). Review one also explored a number of non-crime outcomes; including officer use of force (26 studies), complaints against officers (22 studies), officer-initiated calls for

service (eight studies), dispatched calls for service (six studies), traffic stops and tickets (five studies), stop and search (four studies), incident reports (three studies), response times (three studies), non-traffic citations (two studies) and time spent on scene (one study).

Review two covered 11 studies. Six of the studies included in the review were from the USA and the remaining 5 were from the UK. The review did not include a meta-analysis but does contribute to the mechanism, implementation and economic consideration sections of this summary.

## Effect – how effective is it?

There is some evidence that BWCs have either increased or reduced crime. Overall they have not had a statistically significant effect on crime.

The primary crime outcome reported by Review one related to assaults on police officers, officer injuries and resistance. This outcome measure was reported by 15 studies, and the meta-analysis found a small (15.9%) increase in assaults or resistance against officers wearing BWCs. This finding was not statistically significant.

Significant results were found for 2 of the 12 outcomes measures. These were complaints against police and minor non-traffic summary offences (for example, littering, drunk and disorderly behaviour).

Outcome measures on complaints against police were reported by 22 of the 30 studies. A significant reduction of 16.6% was found in those wearing BWCs compared to the control groups without BWCs.

For minor non-traffic summary offences, officers wearing BWCs were significantly more likely to write more citations (similar to penalty notices or warnings) than those not wearing BWCs. This finding must be viewed with caution as was only examined in two studies.

For all other outcomes including for example; arrests (reported by 13 studies) and officer initiated calls for service (reported by eight studies) results were inconclusive with non-significant results.

In Review one, a number of different study designs were tested. It was found that, when compared to randomised control trials (RCTs), quasi-experiments were statistically more likely to show a relative reduction in arrests. They also showed a relative increase in dispatched and self-initiated

calls for service for officers wearing BWCs. Studies that reported lower levels of contamination between the treatment and control group were statistically more likely to see reductions in arrests with BWC use.

## How strong is the evidence?

Review one was sufficiently systematic that most forms of bias that could influence the study conclusions can be ruled out.

The evidence is taken from a systematic review covering 30 studies. The review has a well-designed search strategy. This includes published and grey literature, an appropriate calculation of effect size, and consideration of heterogeneity, dependency, inter-rater reliability and publication bias.

Some risks of bias were identified at the individual study level. These include baseline differences between groups, and potential risk of bias in outcome measurement. This could be caused by officers under- or over-reporting items such as use of force incidents, depending on whether assigned to the treatment or control group.

## Mechanism – how does it work?

Review one suggests that the use of BWCs increased self-awareness brought about by the knowledge that police interactions with members of the public are being recorded and watched. This is hypothesised to have a deterrent effect on excessive use of force by police, as officers know that they are being recorded and therefore exercise restraint.

From a member of the public's perspective, the fact that they are being recorded causes them to moderate their behaviour during encounters with police, and not exhibit socially unacceptable behaviour.

Review two suggests that, in addition to the theories of self-awareness and deterrence, BWCs may also have an impact by assisting evidence gathering. They could support memory of key events as officers' memory retention may be affected by the experience of a traumatic event. This improved evidentiary capture could lead to increased early guilty pleas.

Information was not available from the primary studies to test whether these mechanisms were responsible for the outcome patterns observed in either review.

## **Moderators – in which contexts does it work best?**

The reviews did not examine the population groups or conditions the intervention might work best with. Review one carried out some analysis of study-level characteristics which may affect outcomes, and this has been summarised in the 'effect' section above.

## **Implementation – what can be said about implementing this initiative?**

Review two provided a limited account of how the intervention was implemented to ensure BWCs were used in line with requirements. One study described how resistance to using BWCs was overcome by daily reinforcement, and compliance was best maintained when a senior officer was present.

Review two found that police perceptions of BWCs were generally positive. These perceptions included attitudes towards the convenience of BWC, whether BWC was a positive introduction, ease of use and improving the quality of evidence and documentation. Community perceptions of BWCs were also reported to have improved after use of BWC, compared to before.

Review one gave no account of how the intervention was implemented, nor of any implementation challenges encountered by the primary studies.

## **Economic considerations – how much might it cost?**

Whilst no economic analysis was conducted within Review two, some mention of costs was reported in the primary studies. One study reported a £50,000 saving in court, prosecution and police costs over the course of two trials, resulting in an estimated £125,000 saving per year. However, the author notes that considerable caution should be taken when considering these cost

estimates.

Review one did not mention the costs or benefits of BWCs, and no formal economic analysis was provided.

## General considerations

- The majority of studies which form the basis of both reviews were conducted in the USA, so caution must be exercised when generalising the findings to other jurisdictions.
- Neither review was primarily focused on crime reduction outcomes, with most outcomes measured relating to police processes and activities.

## Summary

Evidence from Review one indicates that the use of BWCs does not have a significant impact on crime-related outcomes.


In terms of non-crime outcomes, evidence from Review one suggests that use of BWCs can reduce complaints against officers. In terms of mechanisms, it is assumed that the process of being recorded by the BWC causes a change in police officer and public behaviour, which affects the nature of the interaction between the parties. Also, BWC can provide officers with an additional level of information to assist recall when writing statements and giving evidence. It must be noted that these mechanisms were not tested in the two reviews.

While no economic analysis was conducted in either review, one study did suggest that the implementation of BWCs is cost-effective, but these economic calculations should be treated with caution.

## Reviews

### Review one


#### Quality of evidence

Mechanism How it works	Moderator	Implementation How to do it	Economic cost What it costs
 Low		No information	No information

## Reference

- Lum, C., Koper, C., Wilson, D., Stoltz, M., Goodier, M., Eggins, E., Higginson, A. & Mazerolle, L. (2020). [Body-worn cameras' effects on police officers and citizen behavior: A systematic review. Campbell Systematic Reviews 16](#)

## Review two

Quality of evidence			
Mechanism How it works	Moderator	Implementation How to do it	Economic cost What it costs
 Low		No information	No information

## Reference

- Cubitt T., Lesic, R., Myers, G. & Corry, R. (2017) Body-worn video: A systematic review of literature. Australian & New Zealand Journal of Criminology, 50(3), 379-396.

[Return to the toolkit](#)

## Tags

- [Crime reduction](#)