



Item No. 8.1.1

HALIFAX

**Body-Worn Video (BWV):
A review of evidence,
costs and implications
for HRP**

Overview

- What problem are we trying to solve?
- Review of recent literature
- Cost and cost-effectiveness of BWV
- Implications for HRP



What problem are we trying to solve?

- The **primary categories** used in police services elsewhere to justify the implementation of BWV are:
 - Public confidence and transparency
 - Behavior modification (both officer and public)
 - Collection of evidence for criminal matters
 - Non-criminal litigation evidence collection
- These areas are all worthy of attention and continuous improvement:
 - However, we do not at present know if BWV represents *an effective strategy* and/or *the most appropriate strategy* to achieve improvements.
 - Recent literature may provide some guidance on what to expect from BWV.



Summary of recent literature on BWV (1)

- The predominant themes in existing literature relate to the impact of BWV on:
 - citizen complaints
 - officer use of force
 - officer injuries/assaults on officers
 - use of BWV content in court cases, and
 - public and police attitudes toward BWV
- Overall, the **results of research on the effectiveness of BWV have been mixed** with different studies suggesting BWV has positive, nil, or negative effects.



Summary of recent literature on BWV (2)

- Literature on BWV deployment shows **impacts on citizen complaints and officer use of force**, but only when officers have low discretion on when to turn cameras on/off.
- BWV can also **introduce unintended or negative consequences** such as increased violence against police, decreased professional discretion, and increased officer use of force.



Summary of recent literature on BWV (3)

- Members of the public in Common-law jurisdictions are **largely supportive of BWV**, however **support is lower among people with more negative attitudes toward police.**
- The measured positive effects of BWV **may decrease or disappear over time**
- There are **many unanswered questions about the policy and legal basis**, related to:
 - Privacy for citizens (and to a lesser extent for police employees)
 - Workload for police officers and records clerks
 - Workload for prosecutors, defense attorneys, courts



Summary of recent literature on BWV (4)

HIGH-END MEASURES OF EFFECTIVENESS

- 90% reduction in complaints (Ariel et al 2015), possibly as high as 96% with 'full compliance'/low discretion (Hedberg et al 2016)
- No effect on officer injuries (White, Gaub and Todak 2017)
- 50% reduction in use of force during arrests (Henstock and Ariel 2016; White, Gaub and Todak 2017)
- 65% reduction in injuries to persons arrested
- 28% of content potentially usable in justice system processes/court cases (Grossmith et al 2015)
- 3x increase in convictions in intimate partner violence (IPV) cases (Morrow et al 2016)

LOW-END MEASURES OF EFFECTIVENESS

- 10% (statistically non-significant) reduction in complaints (Ariel et al 2016b; see also Grossmith et al 2015)
- 71% increase in use of force (Ariel et al 2016a, see also Henstock and Ariel 2016)
- 15% increase in assaults against officers (Ariel et al 2016c)
- 3x increase (statistically non-significant) in injuries to officers during arrest (Henstock and Ariel 2016)
- 6-10% of content potentially usable in justice system processes/court cases (professional correspondence)
- Mixed results in IPV cases and increased processing times (Morrow et al 2016)



Cost and cost-effectiveness of BWV (1)

- Any claim of cost-effectiveness first presumes effectiveness – which is an open question at present (i.e. not evidence-based)
 - And ‘effectiveness’ needs to be defined – again, what problem would BWV potentially solve?
 - For example, BWV may increase trust and confidence in populations with already high opinion of police, but reduce it in populations where trust issues exist.
 - BWV may increase *or* decrease incidents of use of force, depending on implementation.



Cost and cost-effectiveness of BWV (1)

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An important study: [#BWV](#) increases public satisfaction with police contact, but [#ProceduralJustice](#) increases it more urban.org/sites/default/...

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force, depending on implementation



Cost and cost-effectiveness of BWV (2)

- Direct costs of BWV have reduced somewhat
 - If we are comfortable with the Cloud storage option, fixed costs related to data storage and security are lower now than in 2016 and expected to decrease somewhat in the years to come.
 - And camera usage can be scaled up/down more readily.



Cost and cost-effectiveness of BWV (3)

- Nonetheless, indirect costs – especially the labour required to process video data – will likely remain high regardless of direct costs, for police, prosecutions as well as courts.
 - A large amount of video will need to be vetted and curated for potential use in investigations and trials.
 - And there will be additional costs and considerations related to availability of video through for example FOIPOP.
 - There are unanswered questions about data custody in the long term (e.g. if there was a change in BWV service provider).



Cost comparison, Cloud versus in-house storage

Areas	In-house storage	Cloud storage
Direct costs (cameras, chargers and other equipment; data storage costs)	\$2.19 million	\$1.93 million
Indirect costs (labour, training, tagging and processing evidence, etc.)	\$5.33 million	\$5.33 million
Total 5-year cost	\$7.52 million	\$7.26 million

All figures assuming 50 cameras purchased and operational at HRP each year, with 400 user licenses in the Cloud storage option



Implications (1)

- Any decision rests on an answer to the question about what problem BWV may solve
 - Data on effectiveness of BWV remains equivocal and is context-specific
- If BWV proved to have a positive impact, it still may not be justified given the direct and indirect costs
 - For example, what else could we do with a similar amount of funding and labour?



Implications (2)

- Scalability of costs in the Cloud option makes a small pilot of the technology potentially more palatable, but should not be a priority for HRP
 - Even a pilot would require substantial policy and training development in advance.
 - E.g. Privacy impact assessment, video evidence management strategy for investigations and court, camera use and metadata protocols, community consultation.
 - Potential negative impacts ('pre-mortem') would need to be considered and any impacts properly measured (through ongoing evaluation).



Questions?



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