Evidence of the Role of CCTV in Preventing Alcohol-Related Assaults In the Cairns Night Time Economy

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Thanks to
Cairns Regional Council
Associate Professor Alan Clough
Charmaine Hayes-Jonkers
Seminar Overview

1. Cairns open-space CCTV system
2. Background to Study
3. Interruption of Assaults
4. Economic Cost Effectiveness Analysis (cost to community)
5. Realist Evaluation method
Cairns Open-Space CCTV system to limit assaults
Technological Capability

Note the sign behind the truck
CCTV Real-time Communications System

- Camera Room
  - Police (Comms)
  - Security (venues)
  - Security (Street)
  - Police (radio)
Alcohol Assault Co-ordinated data collection tool

- Reported
- Injury Severity
  - Place
  - Time

- Place
- Time
- Demographic
  - Unreported

ED

Police

Venues

CCTV

- Place
- Unreported

- Place
- Time
- On street only
Incidents of person-to-person violence (‘alleged assault’) in the Cairns Late Night Entertainment Precinct: June 2011

- Emergency Department data
  - ‘Yes’ believed to be alcohol-related and occurred in the CBD
  - Unsure if alcohol-related or occurring in the CBD

- Incidents observed by CCTV
- Police charges of alcohol-related assault
- Incidents seen by both CCTV & QPS

Security Data
- Including with ‘alcohol not involved’

123 incidents counted
CCTV Real-time Communications System

- Police (Comms)
- Security (venues)
- Security (Street)
- Police (radio)
Interruption of Assaults

Examined CCTV camera operator reports and observed footage of recorded assaults

Nine days in late-August (2010) and thirteen days over Christmas/New Year (2010-11)

Assaults: 30 in 22 Days
Interruption of Assaults

Assaults: 30 in 22 Days

a) Happened too quickly for camera operators to direct street security to intervene: 13 (43%)

b) Operators alerted street security who then intervened to curtail the violence or prevent its escalation: 12 (40%)

c) Potential to intervene to prevent the initiation of violence: 5 (17%)
Realist Evaluation method

One strength of RE is facilitation of scientific hypotheses
Another is policy and practice contribution
CCTV Real-time Communications System

- Camera Room
  - Police (Comms)
  - Security (venues)
  - Security (Street)
  - Police (radio)
Applied Realist Evaluation

Context

Mechanisms

Camera room operations
Camera operator training
Real time communications network

Body language
Behavioural predictors
Operator attention

Outcomes

40%
17%
Continuous Quality Improvement

Data Provided

Footage & Data sampled & analysed

Training workshop
Results feedback

Intervention points refined

CCTV
## ECONOMIC ANALYSIS: Cost benefit

<table>
<thead>
<tr>
<th>Incidents where assault was limited</th>
<th>Hospitalisation would have resulted with no intervention</th>
<th>Severe/moderate injury would have occurred with no intervention</th>
<th>No injury would have occurred with no intervention</th>
<th>Total over 22 days ($)</th>
<th>Total over Calendar Year</th>
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<tbody>
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<td>0 ($0)</td>
<td>0 ($0)</td>
<td>12 ($4,560)</td>
<td>$4,560</td>
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<td>9 ($3,420)</td>
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Context of open-space urban CCTV system defined

A. Precise system outcomes

B. Police involvement

C. Camera room staff and operations

D. Camera operator training

E. Community information strategy & strategic communication networks

F. Real-time communication networks

G. Referral and outcome recorded

H. Regular internal audit and external evaluations

I. Legislative and regulatory requirements met
DIAGRAM OF REALIST EVALUATION OF CCTV INTERVENTIONS

Directed Response

CCTV control room operations

Community Education Strategy

Combined Alcohol-Related Assaults

Police Involvement

Data Accuracy

Strategic Intelligence Sharing with partners

CCTV NIGHT TIME ECOLOGY
Using Realist Evaluation for accuracy of data entry

Defined Data Entry Context Stable

Mechanisms Audit of Camera Operators

Data accuracy Outcomes (Study 1.2)
CCTV: Accuracy of Incident Type categorisation

- **Period 1 (Sept 2010)**: Baseline
- **Period 2 (Xmas & NY 2010/11)**: Follow-up

Accuracy levels:
- **Red**: Inaccurate
- **Almost**: Accurate

Period 1 (Sept 2010) shows a mix of inaccurate and almost accurate categorisations. Period 2 (Xmas & NY 2010/11) has a higher proportion of almost accurate categorisations compared to the baseline period.
Continuous Quality Improvement in a Realist Evaluation method

Data Provided

CCTV

Footage & Data sampled & analysed

Intervention points refined

Training workshop
Results feedback
Current Research

CAMERA OPERATORS

Some Assaults in LNEPs are a four stage process (Barker, 2010)

Viewers of CCTV footage can predict the outcome of a behavioural sequence more than 80% of time (Troskianko et al, 2009)

COMMUNITY EDUCATION

Identify social mechanisms of CCTV within night time economy patrons
Thank you