



The Cairns Institute

# *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

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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
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# Cairns Open-Space CCTV system to limit assaults



# Technological Capability

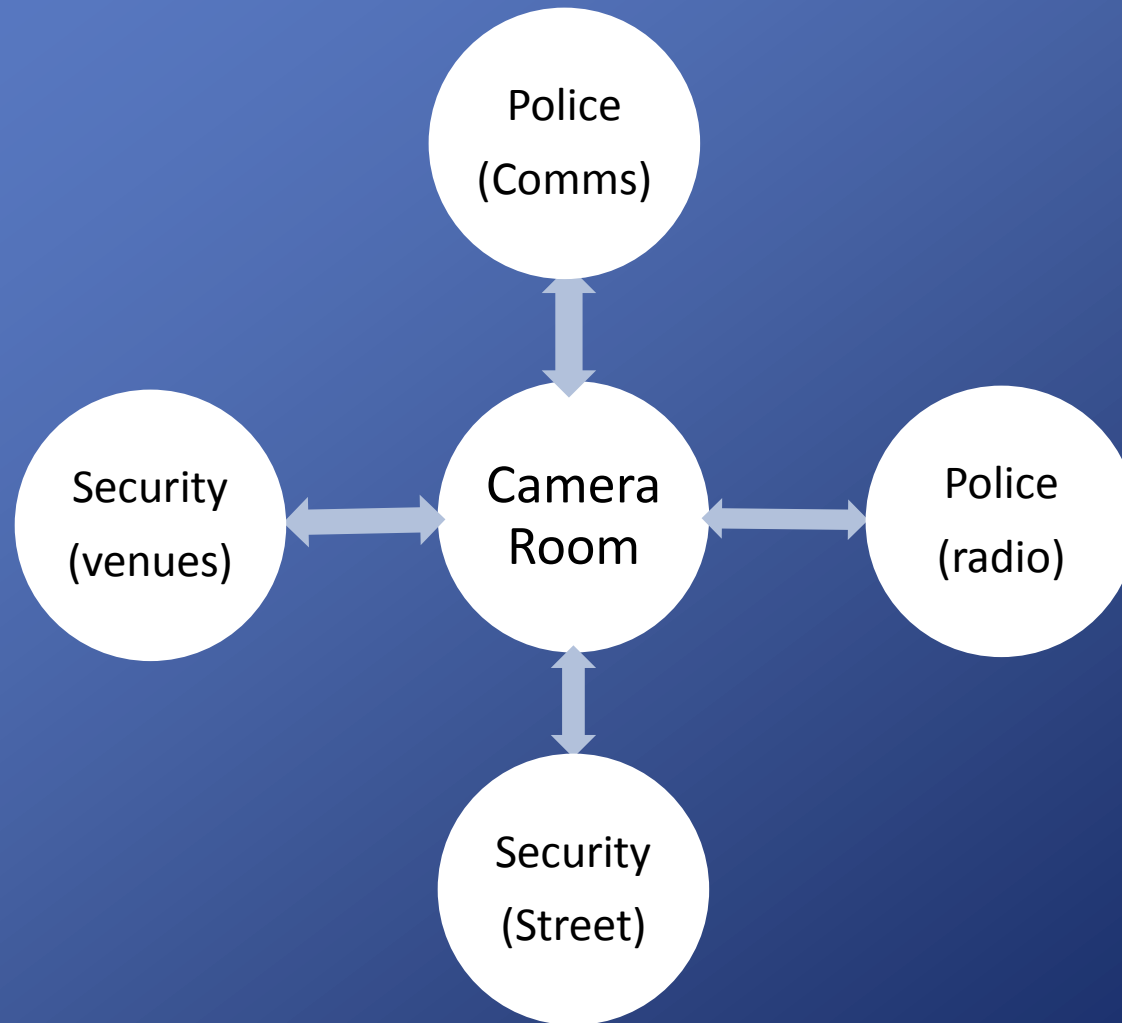


Note the sign behind the truck

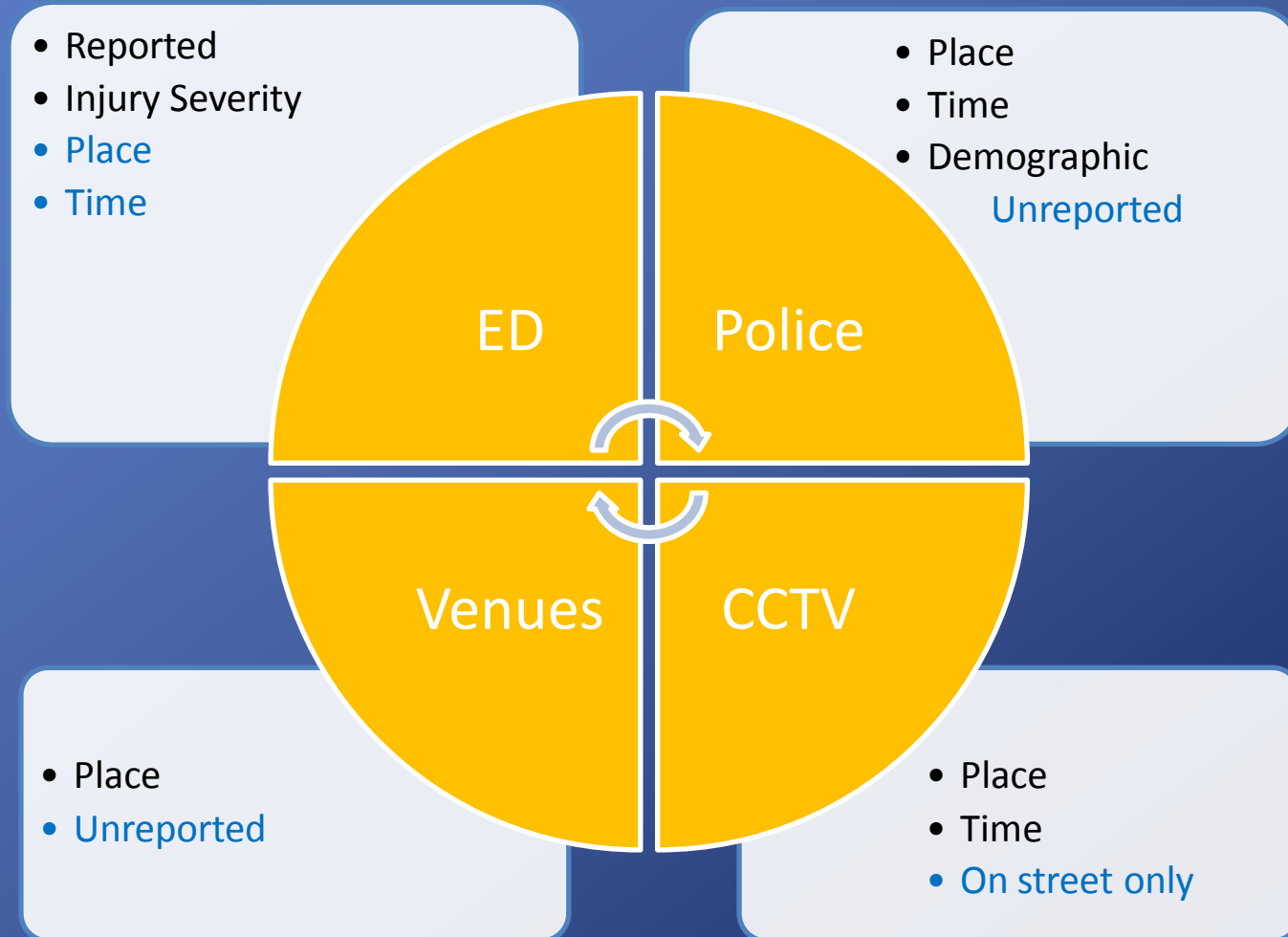


# CCTV Real-time Communications System

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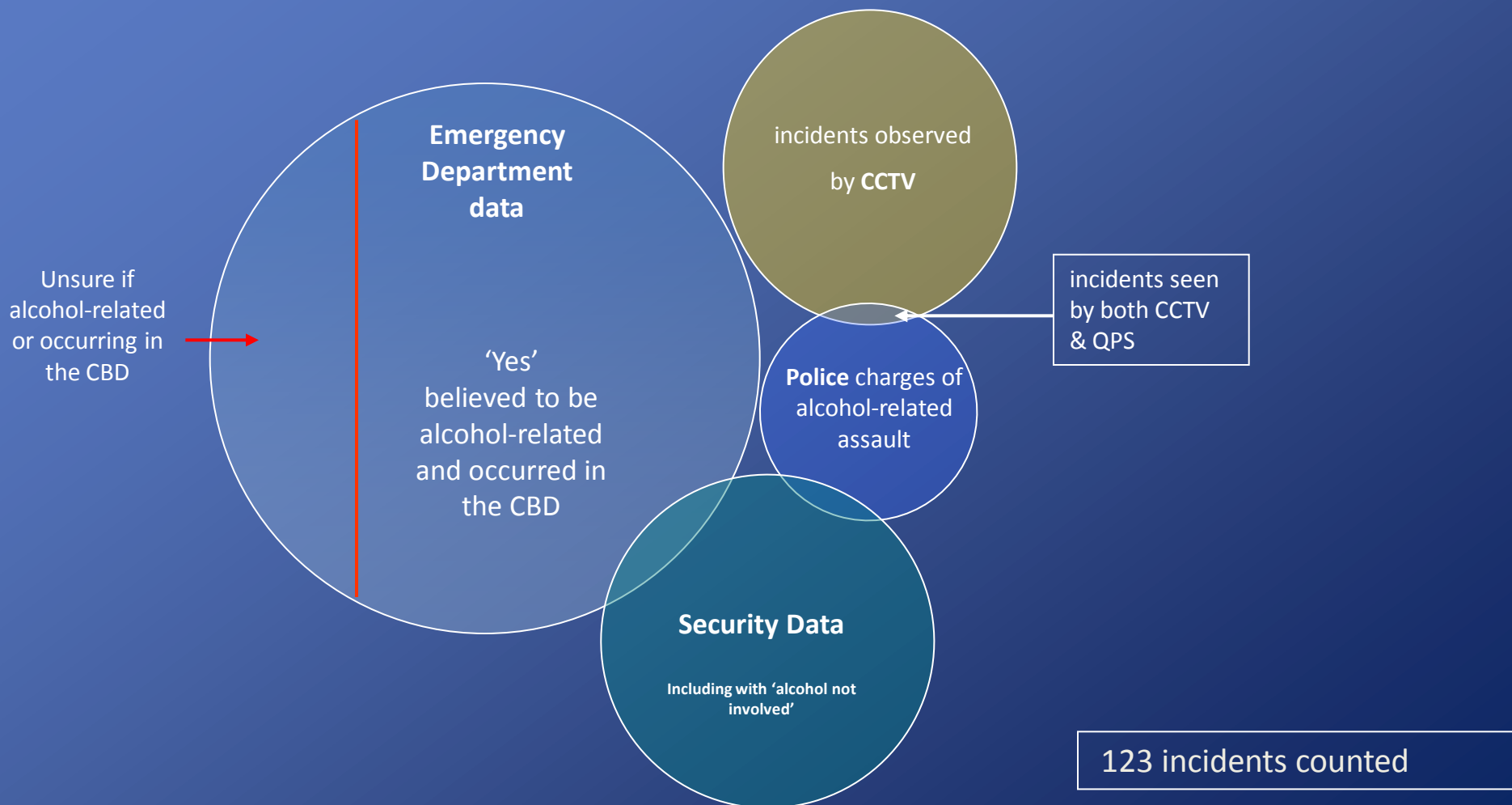


# Alcohol Assault Co-ordinated data collection tool



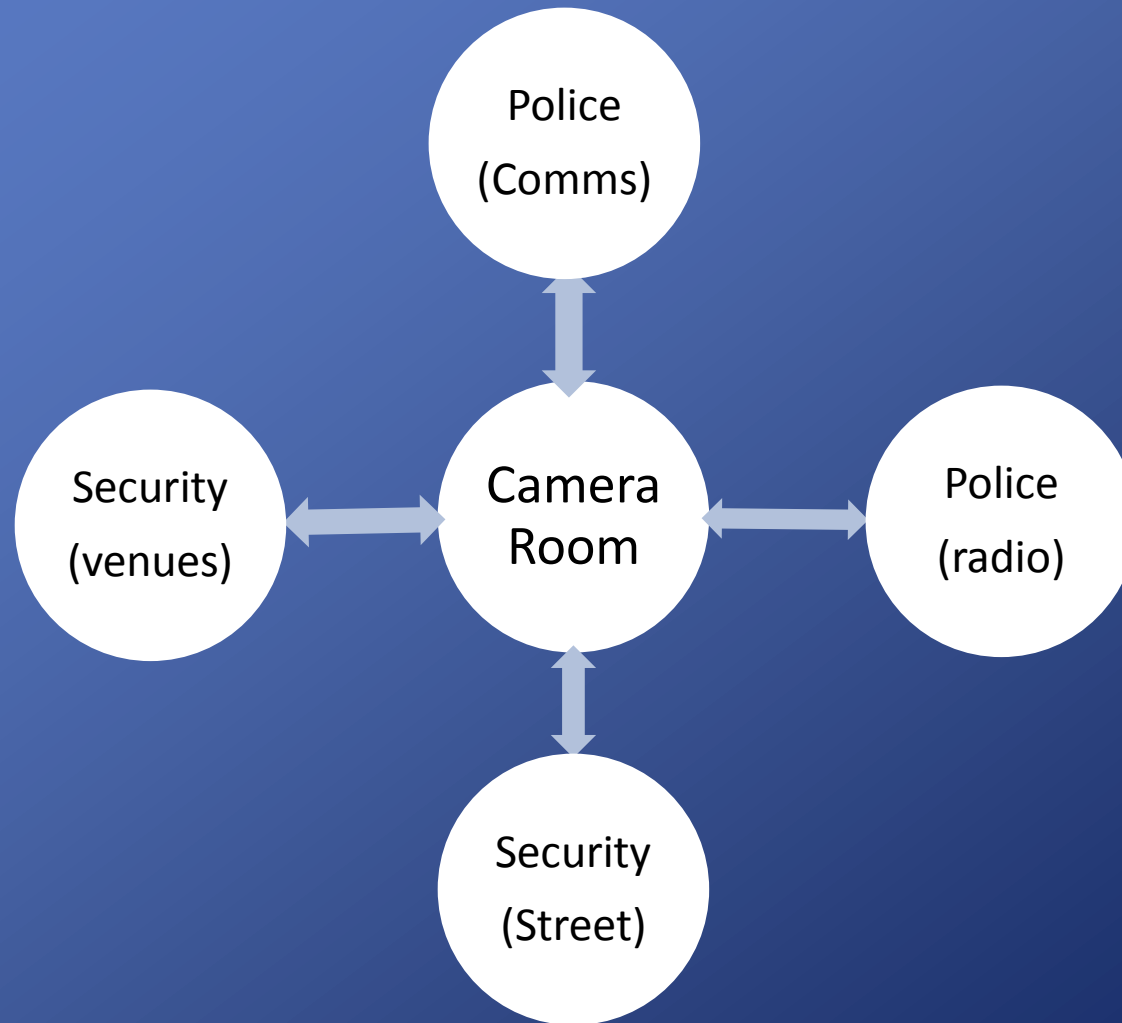
# Which showed us

## Incidents of person-to-person violence ('alleged assault') in the Cairns Late Night Entertainment Precinct: June 2011



# CCTV Real-time Communications System

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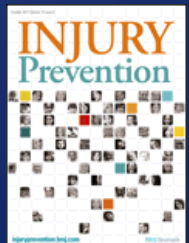


Examined CCTV camera operator reports and observed footage of recorded assaults

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

Assaults: 30 in 22 Days

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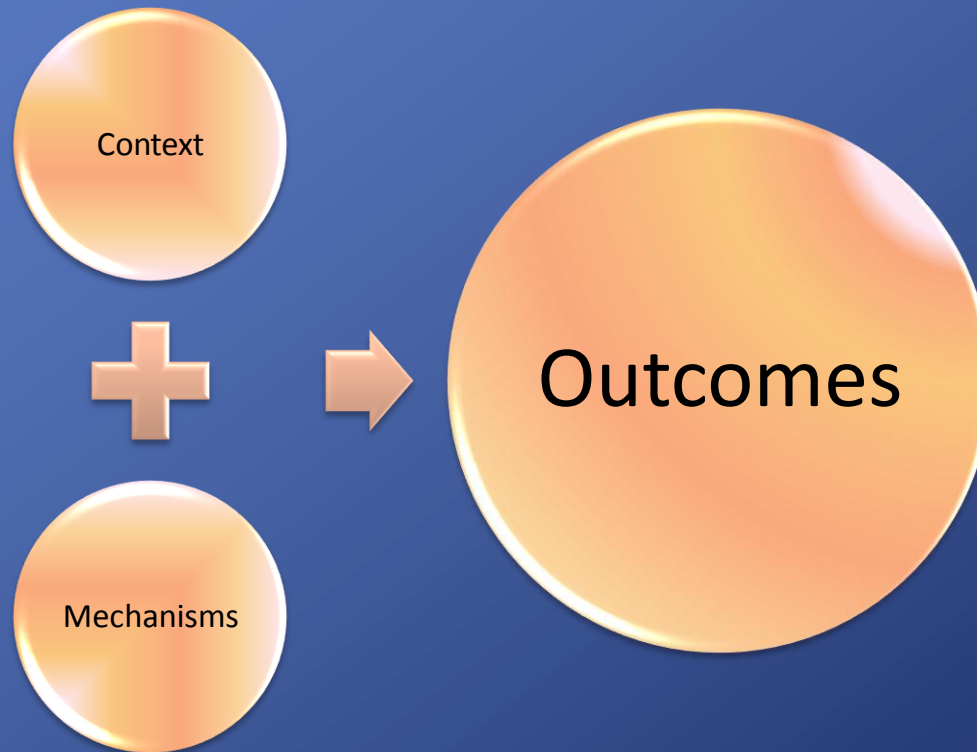


## Assaults: 30 in 22 Days

- 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%)
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# Realist Evaluation method

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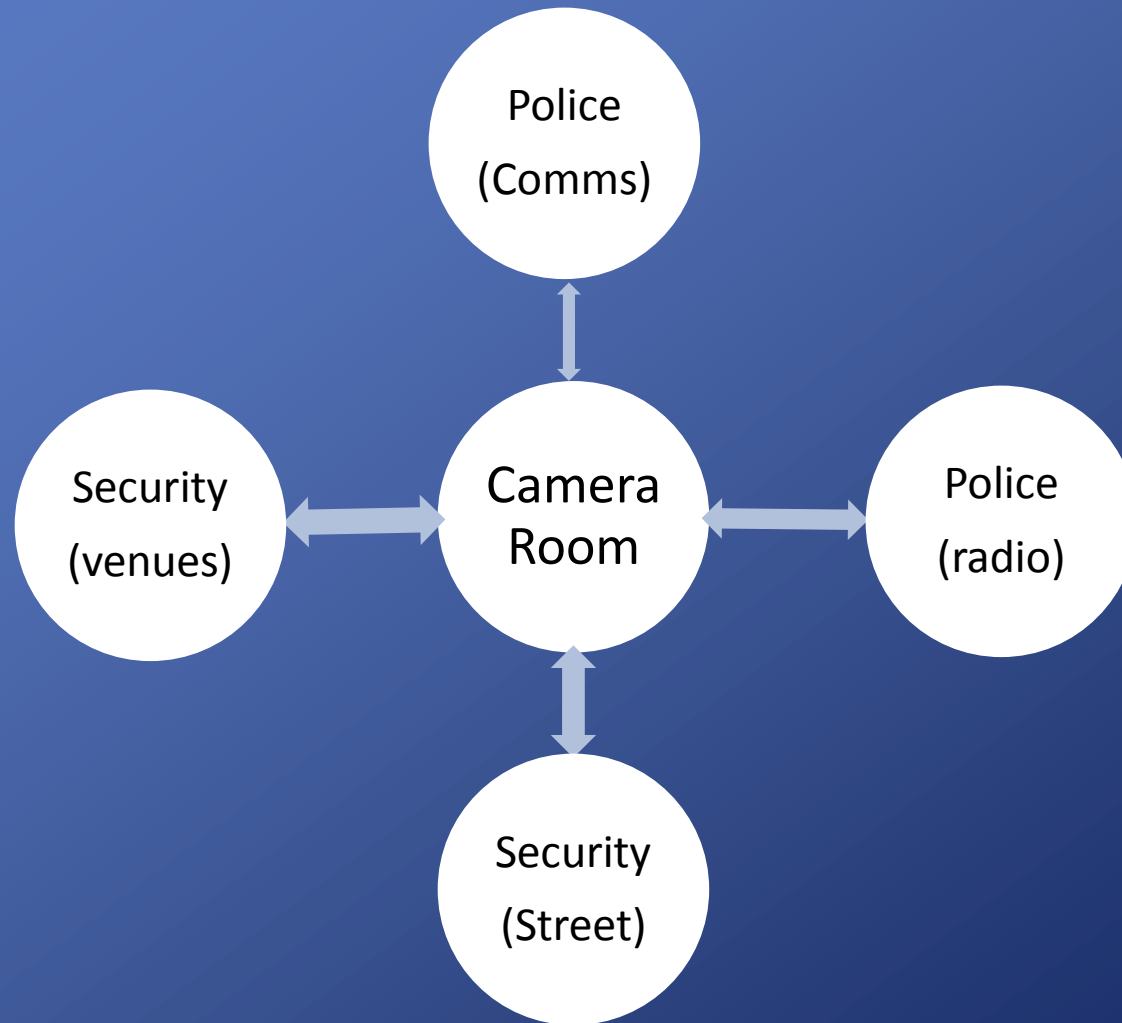


One strength of RE is facilitation of scientific hypotheses  
Another is policy and practice contribution

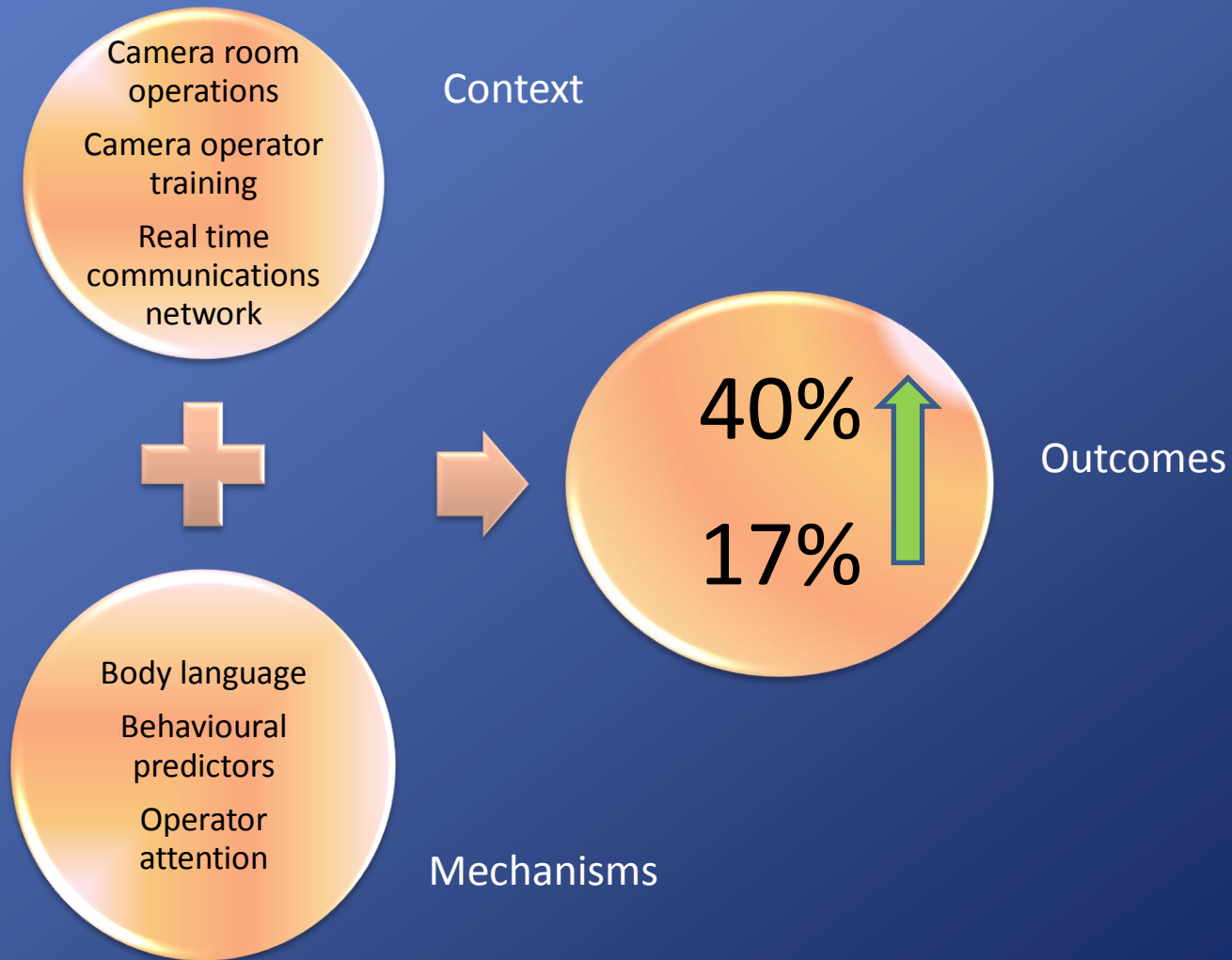
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# CCTV Real-time Communications System

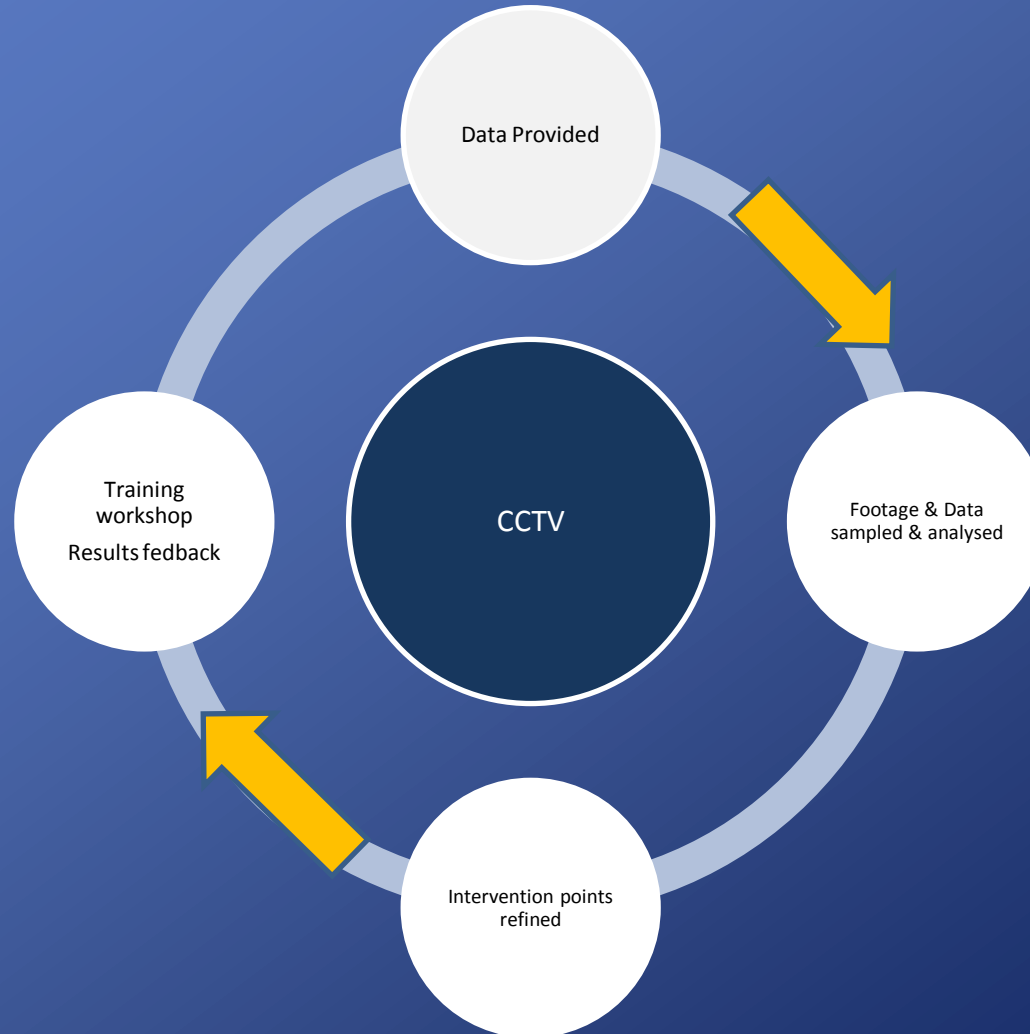
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# Applied Realist Evaluation



# Continuous Quality Improvement



# ECONOMIC ANALYSIS: Cost benefit

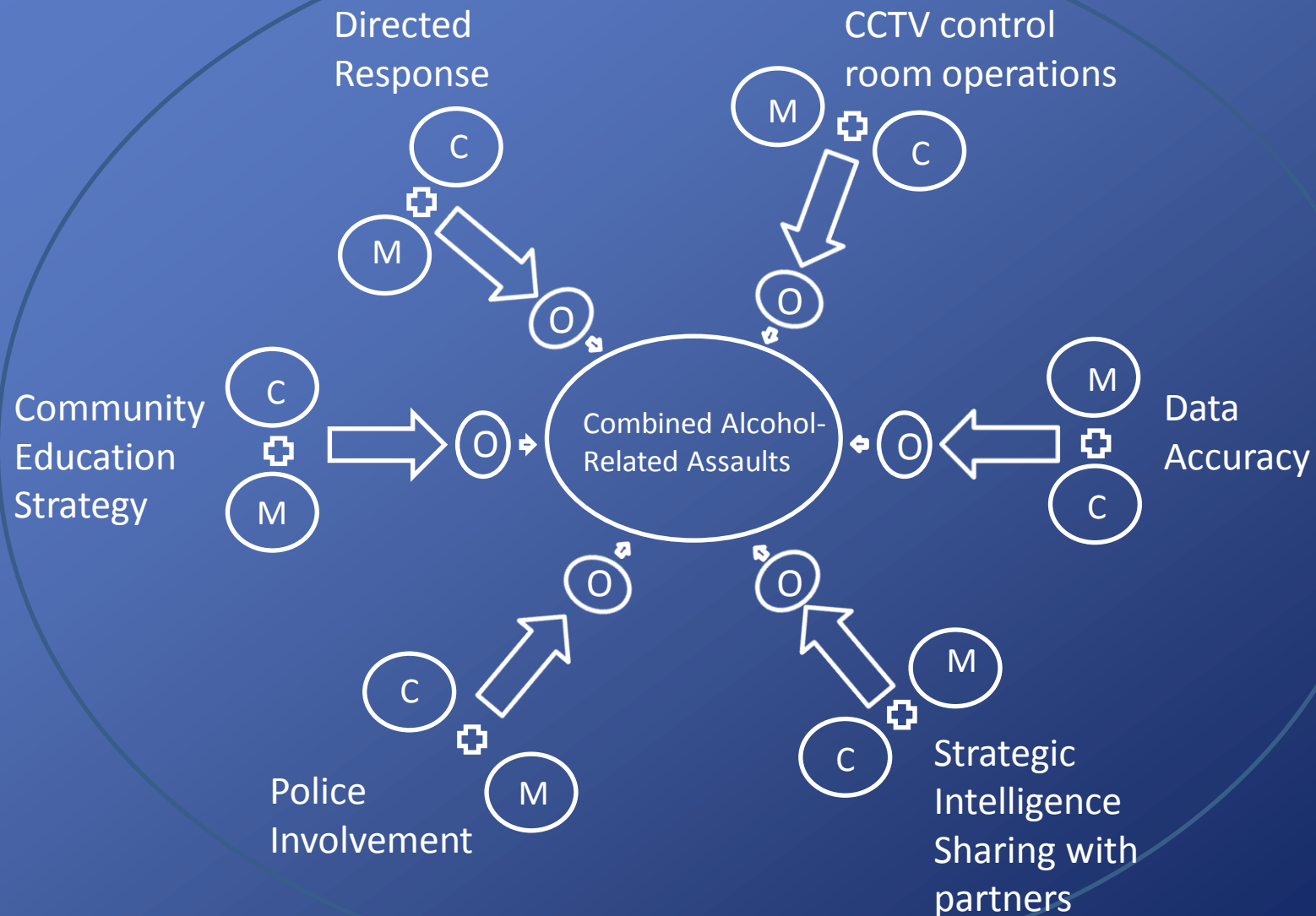
| Estimated costs to the community saved over 22 days in documented incidents in which the CCTV system intervened (2005 dollars) |                                                          |                                                                 |                                                    |                         |                          |
|--------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------|-------------------------|--------------------------|
| Incidents where assault was limited                                                                                            | Hospitalisation would have resulted with no intervention | Severe/moderate injury would have occurred with no intervention | No injury would have occurred with no intervention | Total over 22 days (\$) | Total over Calendar Year |
| 12                                                                                                                             | 0 (\$0)                                                  | 0 (\$0)                                                         | 12 (\$4,560)                                       | <b>\$4,560</b>          | \$ 75,654                |
| 12                                                                                                                             | 0 (\$0)                                                  | 3 (\$14,400)                                                    | 9 (\$3,420)                                        | <b>\$17,820</b>         | \$ 295,633               |
| 12                                                                                                                             | 1 (\$16,000)                                             | 3 (\$14,400)                                                    | 8 (\$3,040)                                        | <b>\$33,400</b>         | \$ 554,106               |
| 12                                                                                                                             | 3 (\$48,000)                                             | 3 (\$14,400)                                                    | 6 (\$2,280)                                        | <b>\$64,680</b>         | \$1,073,041              |
| 12                                                                                                                             | 0 (\$0)                                                  | 6 (\$28,800)                                                    | 6 (\$2,280)                                        | <b>\$31,080</b>         | \$ 515,617               |
| 12                                                                                                                             | 1 (\$16,000)                                             | 6 (\$28,800)                                                    | 5 (\$1,900)                                        | <b>\$46,700</b>         | \$ 774,753               |
| 12                                                                                                                             | 3 (\$48,000)                                             | 6 (\$28,800)                                                    | 3 (\$1,140)                                        | <b>\$77,940</b>         | \$1,293,024              |

# Context of open-space urban CCTV system defined

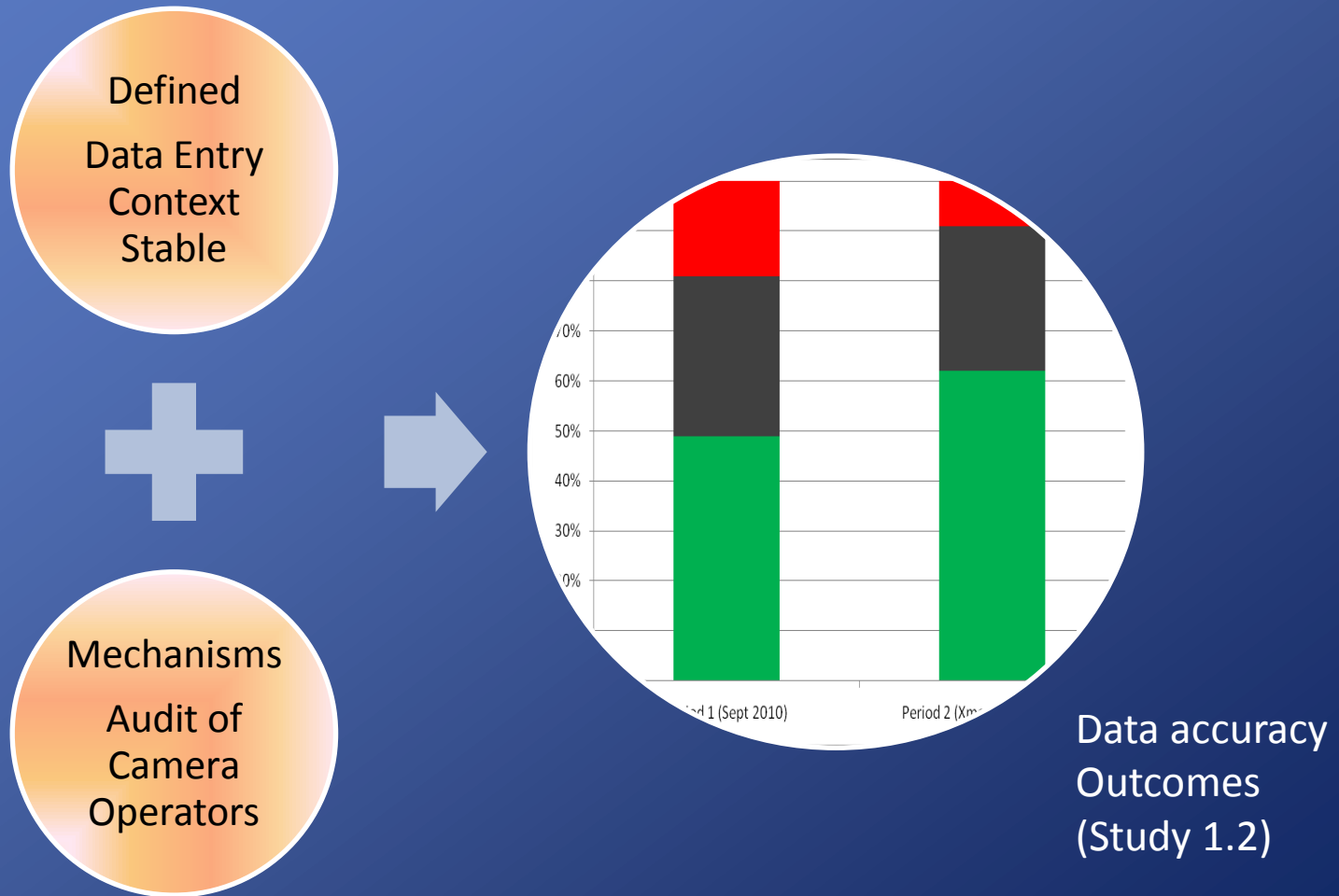
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- A. Precise system outcomes
- B. Police involvement
- C. Camera room staff and operations
- D. Camera operator training
- E. Community information strategy & strategic communication networks
- F. Real-time communication networks
- G. Referral and outcome recorded
- H. Regular internal audit and external evaluations
- I. Legislative and regulatory requirements met

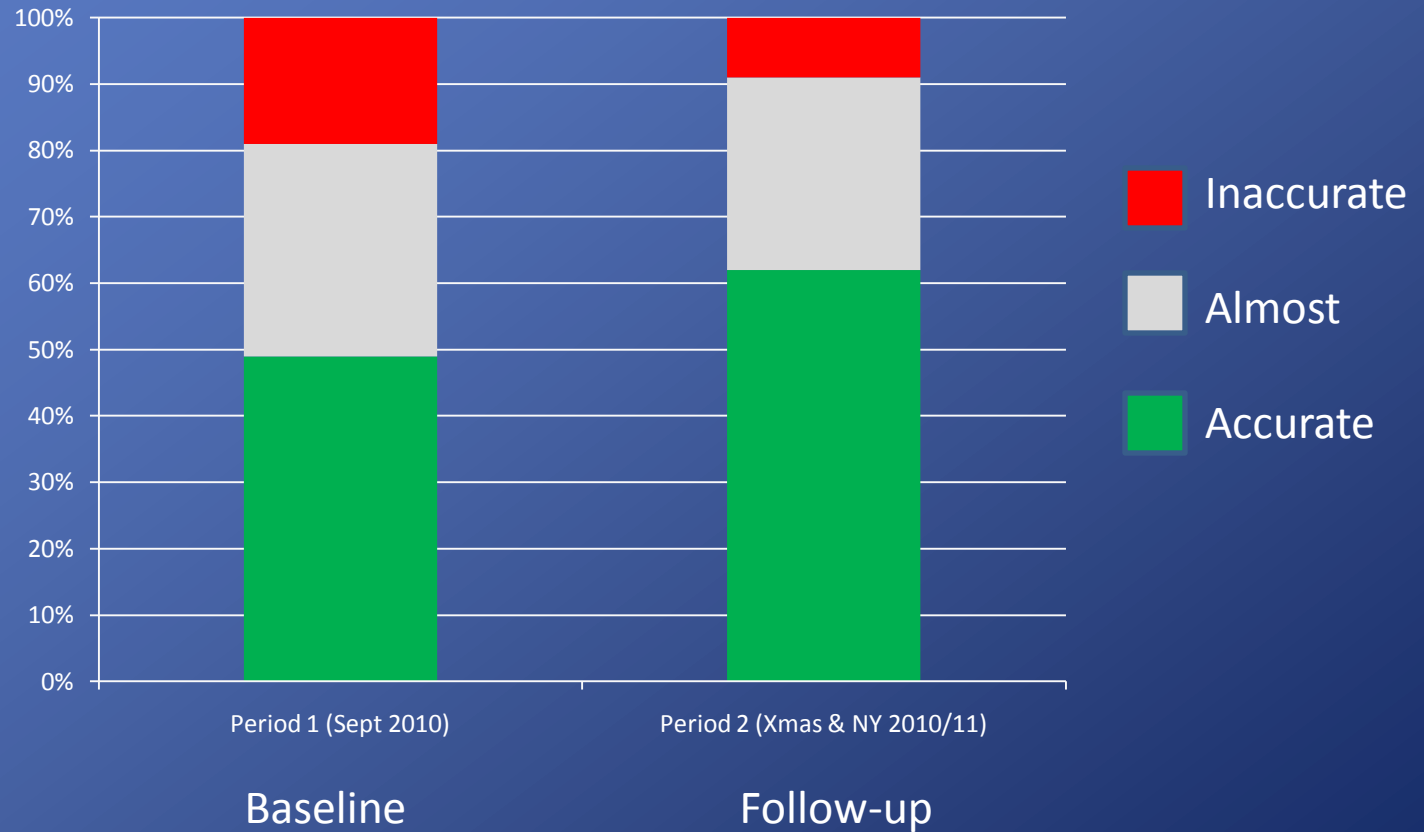
# DIAGRAM OF REALIST EVALUATION OF CCTV INTERVENTIONS



# Using Realist Evaluation for accuracy of data entry

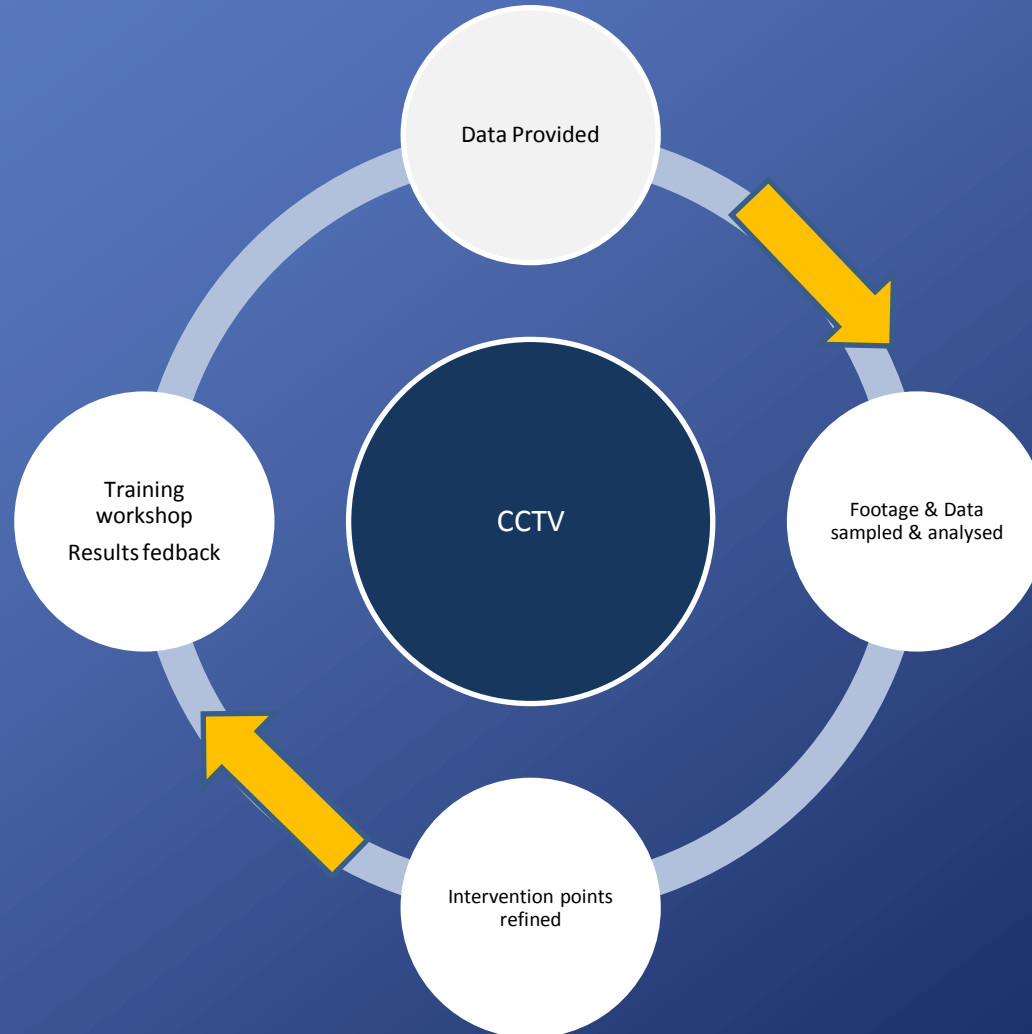


# CCTV: Accuracy of Incident Type categorisation



# Continuous Quality Improvement in a Realist Evaluation method

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# Current Research

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## **CAMERA OPERATORS**

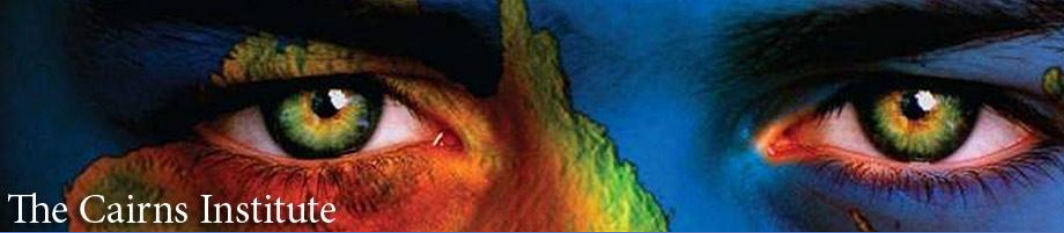
Some Assaults in LNEPs are a four stage process (Barker, 2010)

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

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Thank you