The use of protective clothing by motorcyclists in Victoria: Evaluation of the Community Policing and Education Project

Dr Matthew Baldock  
Mr Craig Kloeden  
Prof Mary Lydon  
Mr Giulio Ponte  
Mr Simon Raftery  
Ms Jennifer Grigo
Introduction - Community Policing and Education Project

- Education + enforcement
- 2009-10
- Speeding, crossing double lines, failure to give way, changing lanes when unsafe, driver distraction, impaired driving/riding, use of protective and conspicuous clothing
- Motorcycle Safety Levy
- Statewide and regional operations
CASR evaluation

- Process evaluation
- Crash and offence data analysis
- Regional speed surveys
- Roadside observations
- Online survey of Victorian motorcyclists
Value of protective clothing

- Gear study (de Rome and colleagues, 2011)
  - 212 crash-involved motorcyclists
  - hospital admission less likely for riders wearing protective clothing
  - lower injury risk for those wearing body armour
  - follow up of 146 riders – protective clothing associated with longer term benefits

- TAC study (McIntyre et al, 2011)
  - interviews with 500 crash-involved motorcyclists
  - protective clothing associated with fewer open wound injuries
  - reduced nerve injuries associated with protective pants and boots
Roadside observations

- Metropolitan Melbourne during commuting times; regional Victoria during recreational periods on weekends
- 3 sets of Melbourne observations
  - two weeks before a Victoria Police operation
  - two days after the operation
  - three weeks after
  - Thursdays and Fridays 7-9am, 4:30-6:30pm
- Type of motorcycle
- Headlights on or off
- Helmet type
- Conspicuity
- Protective clothing
- Pillion passenger/helmet type
Results – motorcycle type

- Three sets of observations consistent with regard to m/c type
  - 37% sports
  - 26% scooters
  - 25% standard/naked
  - N = 209, 247 and 260
Results – headlights, helmets and conspicuity

- 1 in 40 motorcycles headlights not operating
- All riders wearing helmets
- Full-face versus open-face helmets – no change across three sets of observations
- Statistically significant differences \((p < .01)\) by motorcycle type – more open-face helmets among riders of scooters (33%) and cruisers (44%)
- Low levels of clothing conspicuity, no change across the 3 sets of observations.
- Riders of cruisers significantly lower \((p < .01)\) levels of conspicuity (6% highly conspicuous compared to ~20% for the rest)
## Results – protective clothing

<table>
<thead>
<tr>
<th></th>
<th>Pre</th>
<th>One week post</th>
<th>One month post</th>
</tr>
</thead>
<tbody>
<tr>
<td>% full protection (Melbourne)</td>
<td>17.2</td>
<td>23.9</td>
<td>38.1</td>
</tr>
</tbody>
</table>
Results – protective clothing cont.

- Improvement across sets of observations in protective clothing worn by riders of sports motorcycles and standard/naked motorcycles
- Improvement still needed for scooter and cruiser riders
- Overall:
  - 28% full body protection
  - 61% upper body protection only
  - 12% no protection
Discussion

- Positive finding – increased body protection following Yellow Flag/Black Flag operation targeting commuters in Melbourne
- Credible information provided by police can contribute to the goal of increasing use of protective clothing by motorcyclists
- Still need improvements in protective clothing among riders of scooters and cruisers.
- Rider conspicuity could be improved
- Results similar to other studies of this sort in Australia (Wishart et al 2009, in Brisbane and Canberra; Baldock et al., 2011, in South Australia)
- Limitation of study – observations made from side of the road
Acknowledgements

- Project funded by the Victorian Motorcycle Safety Levy. Commissioned by VicRoads, conducted with the support of Victoria Police.

- CASR receives support from the South Australian Motor Accident Commission and the South Australian Department of Planning, Transport and Infrastructure