

**Methods** A mixed-methods approach was used, incorporating program observation and key informant perspectives. Program data (collected April 2012 to June 2014) and de-identified licensing data from the NT Motor Vehicle Registry were analysed for trends in service delivery and licensing rates pre and post-program.

**Results** Stakeholders reported that the program is meeting the needs of underserved remote communities, and regarded the program as highly engaging and acceptable. There was a greater increase in new licences at intervention sites (Learner 24% and Open licence 18%) compared with other remote areas (Learner licence 13% and Open licence 8%). There appeared to be a dose response relationship with greater licence outcomes at communities that received higher levels of program delivery.

**Conclusions** DriveSafe NT Remote is a Government delivered program that is acceptable to Aboriginal clients in remote NT communities, and is increasing driver licensing rates in these settings. The flexible delivery and culturally responsive approach should allow continuation of positive licensing outcomes.

## 521 DOES AN ON-ROAD MOTORCYCLE COACHING PROGRAM REDUCE CRASHES IN NOVICE RIDERS? A RANDOMISED CONTROL TRIAL

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10.1136/injuryprev-2016-042156.521

**Background** There is community demand for investment in motorcycle rider training programs but little evidence of its effectiveness in preventing crashes. This randomised trial of an on-road rider coaching program commissioned by VicRoads, the road authority for the State of Victoria, Australia, aimed to determine its effectiveness in reducing crashes in novice motorcycle riders.

**Methods** Between May 2010 and October 2012 2399 newly-licensed provisional riders were recruited in Victoria, Australia and completed a telephone interview before randomisation to intervention or control groups. Riders in the intervention group were offered an on-road motorcycle rider coaching program which involved pre-program activities, 4 hours riding and facilitated discussion in small groups with a riding coach. Outcome measures were collected for all participants via telephone interviews at 3 and 12 months after program delivery (or equivalent for controls), and via linkage to police-recorded crash and offence data. The primary outcome was a composite measure of police-recorded and self-reported crashes; secondary outcomes included traffic offences, near crashes, riding exposure, and riding behaviours and motivations.

**Results** Follow-up was 89% at 3 months and 88% at 12 months; 60% of the intervention group completed the program. Intention-to-treat analyses conducted in 2014 indicated no effect on crash risk at 3 months (adjusted OR 0.90, 95% CI: 0.65–1.27) or 12 months (adjusted OR 1.00, 95% CI: 0.78–1.29). Riders in the intervention group reported increased riding exposure, speeding behaviours and rider confidence.

**Conclusions** There was no evidence that this on-road motorcycle rider coaching program reduced the risk of crash, and we found an increase in crash-related risk factors. Given the absence of road safety benefits such programs should be considered a less promising strategy than other aspects of a safe system approach.

## 522 EFFECTIVENESS OF MATERNITY DEPARTMENT INTERVENTION TO IMPROVE SAFETY KNOWLEDGE AND BEHAVIOUR OF CHILD PASSENGER

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10.1136/injuryprev-2016-042156.522

**Background** To test the effectiveness of maternity department intervention to improve knowledge of child passenger safety among newborn parents.

**Methods** A prospective experimental study which included three groups (one behaviour intervention group, one education intervention group and one control group) was conducted in the maternity department of two hospitals. Both intervention groups received a folded pamphlet of child passenger safety, a height chart and a standardised safety education during their hospital stay after giving birth. The behaviour intervention group received an additional free child car seat (CSS) and professional installation training at discharge. The control group received a pamphlet with no information on child passenger safety, a height chart or an education about infant care. Three months later, a phone interview was conducted among the participants in the three groups. Data on the child passenger safety knowledge, attitudes, and use of CSS were collected and evaluated before and after the intervention.

**Results** No significant difference observed in demographics among the three groups. There was a significant difference in CSS use among the three groups before and after the intervention ( $\chi^2 = 19.6109$ ,  $P = 0.0001$ ). In the behaviour intervention group, the knowledge of safety belt ( $\chi^2 = 13.1680$ ,  $P = 0.0003$ ), safety airbag ( $\chi^2 = 51.0545$ ,  $P = 0.0000$ ), and CSS legislation ( $\chi^2 = 10.0838$ ,  $P = 0.0015$ ) increased statistically after the intervention; and the drivers wearing safety belt increased from 90% to 100% ( $\chi^2 = 5.2525$ ,  $P = 0.0219$ ); answering phone without device reduced from 29% to 4% ( $\chi^2 = 11.8837$ ,  $P = 0.0006$ ). In the education group, the knowledge of safety airbag ( $\chi^2 = 5.8667$ ,  $P = 0.0154$ ), and CSS ( $\chi^2 = 5.4363$ ,  $P = 0.0197$ ) increased statistically after the intervention; and the drivers wearing safety belt increased from 66% to 86% ( $\chi^2 = 5.0661$ ,  $P = 0.0244$ ). In the control group, except the statistically significant increase on the knowledge of CSS ( $\chi^2 = 4.4308$ ,  $P = 0.0353$ ), there was no statistically changes in other study measures; and the drivers wearing safety belt increased from 75% to 95% ( $\chi^2 = 6.400$ ,  $P = 0.0114$ ).

**Conclusion** Lack of knowledge and poor perception contributed to low use of CSS. Interventions that combine a free CSS with child passenger safety education were effective in improving newborn parents' knowledge and use of CSS. The results of this study will be useful in development of effective interventions promoting child passenger safety.

## 523 TRAFFIC-RELATED INJURIES AMONG THE YOUTH IN THE UNITED ARAB EMIRATES: A PROSPECTIVE TRAUMA REGISTRY-BASED STUDY

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10.1136/injuryprev-2016-042156.523