

## **The development of an intelligence-based deployment model to enhance Road Policing service delivery: A case study**

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### **Abstract**

New Zealand Police's Southern District (SD) has been facing increasing and competing demands for Road Policing service delivery. Road Policing (RP) was conducted in silos and it was unclear if activities and deployments reflected risk. An intelligence risk assessment was developed that identified the safety risks and priorities across the district, which was compared with current practice. A deployment model was developed to align with risks, allocate staff and resources based on demand and the integration of RP with other workgroups. This model is put forward as an evidence-based means to aligning deployment and resources to risk and shifting demands.

### **Background**

Geographically, SD is New Zealand's largest district and has a widely dispersed rural population. This being a popular region for tourism means visiting drivers also create substantial seasonal increases in traffic volume. RP staff were split between multiple teams and had four separate reporting lines. RP teams decided where to deploy (often based on 'gut feel' and experience) and did so independently of other groups, which led to parts of the network being saturated and others under-patrolled. This also created shortfalls in equipment and vehicles. Lack of a coordinated approach to deployment meant it was unclear if temporal and spatial risks were being appropriately prioritised, and RP was not aligned well with other work groups.

### **Intervention**

1. Intelligence district road risk profile (DRRP) created to identify risks and priorities.

An intelligence product was developed to identify priorities and top risks in SD, including: long and short term trends, hotspots, top risk factors and key journey routes (Figure 1). This product presented a complete picture by combining data from a wide array of sources, including: traffic crash reports, motor vehicle injury claims data, offence data, behavioural and attitudinal data, GIS crash maps, police reported traffic incidents and vehicle stops, community complaints, hospitalisation data, and the community risk register.

2. Compare and contrast with current practice to seek opportunities to address the risks.

The findings of DRRP were compared against: current practice and activities undertaken, staff allocated to role types, rosters, deployments and taskings across the district, and equipment resourcing.

3. Realignment of staff and resources to address the demand/risk and integrate this with other parts of the business as part of the wider deployment plan.

Mismatch was revealed between what the DRRP identified as risks, and where, how and when staff were being deployed. Non-RP groups were introduced to the findings and included in the development of a deployment model.

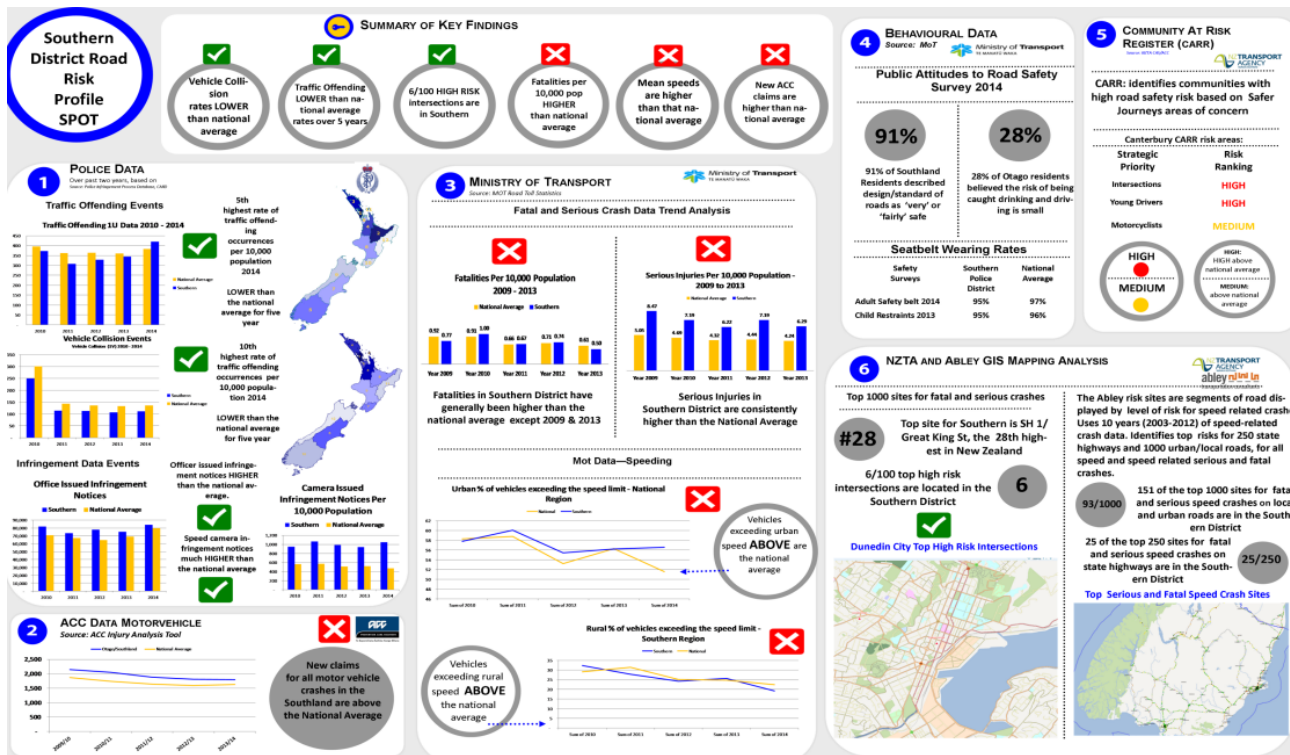


Figure 1. Sample summary page of DRRP intelligence report.

4. Equipment access and type assessed and reallocated

Vehicles and tactical equipment was no longer assigned to areas, workgroups and individuals, but assigned based on shift tasking requirements. This provided staff with access to equipment when and where it was needed to carry out duties and also freed up seven patrol vehicles.

5. Create a deployment model to align with risk and demand

SD RP was restructured so that staff from the all areas reported to the district Road Policing Manager. This allowed for staff to be rostered on for shifts that matched local risk profiles, which varied by type (urban/rural/highway), day of week and time of day. Specific changes made include:

- Shift rosters altered and staff relocated to provide optimum coverage.
- Staff rotated through areas to compensate for moving risk patterns.
- Activities undertaken and role types aligned to local risk profiles.
- RP deployment integrated into other workgroups' deployment.
- Enhanced performance monitoring and reporting across RP and non-RP workgroups.

6. Monitoring, evaluation and adjustment

The structure changes and deployment model were successfully implemented in January 2016. An adjustment period of four months was allowed for where issues and risks are identified and corrected and changes are progressively implemented. The outcomes of the deployment model will be evaluated in 2017 once the final structure has been operating for 12 months. The evaluation will make comparisons against control periods to assess: alignment of officer deployment and activity with the top risks; output levels; traffic offending; crashes and hospitalisations.

Conclusion

This case study provides a practical model of how intelligence and demand data can be used to perform a robust assessment of the current state of practice and deployment against evidence-based

priorities and risks. The SD RP deployment model provides a platform for staff and resources to be allocated to best address risk and shifting demands, producing efficiencies and more effective service delivery. The evaluation of the intervention will assess the key outcomes and identify opportunities for improvement, providing a platform for other Police districts to optimise their Road Policing