

The Effectiveness of Police Intelligence Management: A New Zealand Case Study

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Intelligence-driven policing strategies are coming to the fore in many countries around the world. This is evidenced by the espousal of the term in the mission statements of police services in Australia and New Zealand, the recent adoption of the National Criminal Intelligence Sharing Plan by the US government, and most notably by the legal commitment to the National Intelligence Model in the UK through the Police Reform Act of 2002. This paper considers intelligence-driven crime reduction as a three-stage process, requiring that: law enforcement interpret the criminal environment, influence decision-makers, and finally that decision-makers impact on the criminal environment. This 3i model (interpret, influence, impact) is used as the framework for an evaluation of the intelligence process in three New Zealand police districts. The results of interviews with 50 decision-makers and intelligence staff suggest that there are difficulties identifying a clear decision-making structure and that there is perceived to be a lack of understanding of intelligence-led policing at the leadership levels of the organization. Furthermore, issues with training, and data quality and availability hamper the ability of intelligence analysts to contribute to the crime reduction effort. This lack of clarity in intelligence use and application may have a negative effect on the ability of the organization to positively impact on the criminal environment.

Keywords: Intelligence-Led Policing; Crime Reduction; Organizational Management; Crime Analysis; New Zealand

Introduction

At the Philadelphia meeting of the International Association of Chiefs of Police in October 2003, Tom Ridge, Secretary of the US Department of Homeland Security, recognized the work of the Global Intelligence Working Group, and their development

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of the National Criminal Intelligence Sharing Plan (Ridge, 2003). A key component of the plan is extensive support for intelligence-led policing (GIWG, 2003). In England and Wales, the British government has gone a stage further by implementing legislation that requires every police service to adopt the National Intelligence Model. In Australia every police service mentions the term 'intelligence-led' or 'intelligence-driven' in at least one part of their corporate websites (Ratcliffe, 2003), and the strategic plan of the New Zealand Police (NZP) identifies the NZP as a service moving towards intelligence-based policing (New Zealand Police, 2002). On this evidence, it would certainly appear that intelligence-led policing has the potential to become a significant paradigm in modern law enforcement.

The difficulty with current models of intelligence-led policing is that, with the exception of the UK National Intelligence Model, few are documented. Like the meanings of zero-tolerance policing and community policing, many in law enforcement seem to assume that they know what intelligence-led policing entails, often resulting in the same policing style as before, operated as business as usual but under a new name. This lack of real engagement with a potentially valuable idea can lead to confusion when agencies try to communicate ideas and innovation from one to another, and it can also cause problems internally within police services as they try to explain new ideas to the workforce. Given the relative novelty of intelligence-led policing, it is not surprising that there is evidence that police officers do not understand the role of analysts in an intelligence-led environment (Cope, 2004).

This paper will explore the difficulties of converting intelligence-led rhetoric into intelligence-led practice by documenting a qualitative research study conducted in New Zealand. The paper introduces an idealized model of intelligence-led policing, and then employs this model as a theoretical framework with which to evaluate the intelligence management mechanism in three districts of the NZP. The case study highlights issues in the management and use of intelligence for crime reduction purposes that go far beyond the New Zealand environment.

Intelligence-Led Policing

With the growth of the information age, policing has evolved to play a central and pivotal role in the management of information in regard to public safety. In this new 'risk society' the police now act as the central store of crime-related knowledge for a wider group of users than ever before, indeed 'the primary locus of police activity is the risk communication systems shaped by external institutions' (Ericson & Haggerty, 1997, p. 5). The move towards intelligence-driven policing began prior to the 1990s but was crystallized, in the UK at least, with the publication of *Helping with enquiries: Tackling crime effectively* (Audit Commission, 1993), which drew attention to the inability of traditional methods of law enforcement to combat a growing level of criminality, and sought for the first time to influence operational policing (Heaton, 2000). The forces for change in the UK, such as globalization, a perceived growth in organized crime, and an increase in the ability of police to employ information technology systems for information management, were also influential in the move toward intelligence-led

policing strategies in other countries, such as Canada (Sheptycki, 2003), the USA (Gill, 1998, 2000; Smith, 1994), and Australia (Ratcliffe, 2002).

The ability to employ new methods of information management to better understand and respond to the criminal environment is not the sole domain of intelligence-led policing. There is overlap with the way that crime analysis is used within problemoriented policing (Scott, 2000; Tilley, 2003), both for problem definition and evaluation analysis. High volume crime analysis, including the use of mapping, has become a core activity of crime analysts (Cope, 2003) and is central to CompStat. CompStat is an operational management process and is much more than just maps of crime, however, the mapping of volume crime patterns does form an integral part of the overall strategy (McGuire, 2000). CompStat combines computer technology, operational strategy, and managerial accountability, and is inherently data-driven (Walsh, 2001).

Where intelligence-led policing differs from other strategies is in the focus on recidivist offenders, and the encouragement given to surveillance and the use of informants to gather intelligence that might not otherwise come to the attention of police, both techniques where concerns have been raised regarding their widespread use (see, e.g., Cooper & Murphy, 1997; Dunnighan & Norris, 1999; James, 2003). Where intelligence-led policing shares similarities with other applications of intelligence and crime analysis is in the need to convince police officers that an intelligence-driven approach to crime control, based on crime analysis, will be effective (Christopher, 2004; Cope, 2004; Nicholl, 2004; Quarmby, 2004). A move toward intelligence or data-driven strategies often appears to encounter a recurring problem of resistance to change, either through a fear of the impact of new technology on the working conditions of officers (Ericson & Haggerty, 1997) or as a feature of the general inflexibility of 'police culture' (Chan, 1997, 1999). Even when there is a willingness to adopt new ideas, there is often a lack of clarity in regard to both organizational definitions of those ideas or clear mechanisms to convert new information into crime reduction.

Defining Intelligence

Nowhere is intelligence work more integral to policing on a grand scale than in the UK. The British adoption of the National Intelligence Model (NIM) is based on the recognition that modern law enforcement needs more robust systems to interpret a complex criminal environment and to manage risk as effectively as possible. The NIM is a doctrine that describes methods for identifying priorities, methods for managerial decision-making at all levels of the police organization, standards in intelligence activity, and even describes a range of products (Flood, 2004). The implementation of the NIM into the business planning of every police service in England and Wales has become mandatory, due to the Police Reform Act 2002. Evaluations of intelligence work and the introduction of intelligence-led policing by Her Majesty's Inspectorate of Constabulary in the UK have however found different management structures for the intelligence unit in every basic command unit in one force (HMIC, 2002), and one force lacked any intelligence strategy (HMIC, 2001). The NIM functions as a business model, but it is a model imposed onto different systems of varying quality. Implementation and

coordination problems have been reported (Christopher, 2004). As yet there is a lack of evidence that the model enhances the broader policing function and subsequently reduces criminality, though hopes run high and many are cautiously optimistic that the NIM will improve the quality of policing and reduce crime (Heaton, 2000; Maguire, 2000).

While the NIM sees intelligence as a model with inputs and outcomes (NCIS, 2000), other agencies view intelligence as a product and the intelligence system is the support mechanism for the creation of intelligence products (ACS, 2000). A broader view of an intelligence system sees intelligence as a product, a process, and a structure (Ratcliffe, 2003). As decision-makers in the criminal justice system are likely to be removed from the intelligence practitioners, either physically or organizationally, there is a need to create an intelligence product that can be delivered to a client. This is the end stage for the British NIM and the successful completion of the model is achieved through delivery of one of its four formal intelligence products: strategic assessments, tactical assessments, target profiles, and problem profiles (NCIS, 2000). These products do not magically appear, but are created within an organizational structure that has mechanisms to allow the tasking of analysts, the collection of information, the analytical undertaking of converting information into useful intelligence, and the dissemination of the final product. Usually, within law enforcement, this structure is formal and hierarchical and provides the structure necessary to complete the intelligence function. However, it is often supported by informal networks that allow for communication both within and without an agency. The NIM provides a generic structure for the creation of products, as well as some suggestions for analytical tools that can be used within the NIM framework.

The NIM is aligned with broader interpretations of the term 'intelligence.' The key point relevant to this paper is that while the NIM provides for the structure, process, and product, it does not explicitly examine the strategies chosen to manage criminality and disorder. The NIM could therefore be hypothetically evaluated as successful if intelligence products are flowing to operational commanders: the outcome of reduced crime is assumed. Unfortunately, the model does not examine if operational commanders are able to understand and apply the intelligence products, or if they use them to create effective and evidentially sound crime reduction strategies.

The NIM is designed to support intelligence-led policing, one definition of which is 'the use of criminal intelligence analysis as an objective decision-making tool in order to facilitate crime reduction and prevention through effective policing strategies and external partnership projects drawn from an evidential base' (Ratcliffe, 2003, p. 3). This definition rather extends the NIM view of intelligence-led policing by explicitly including crime reduction and prevention. The criterion for success is therefore clearer and more closely tied to the policing function. The mechanism, to use a term from Pawson and Tilley (1997) in a rather broad sense, that this version of intelligence-led policing is trying to influence is more effective policing aligned to objective strategies that are targeted to problems. This can be seen in the model shown in Figure 1 (from Ratcliffe, 2003) where the intelligence unit actively interprets the criminal environment (hence the arrow flows to the criminal environment) and uses this intelligence to influence

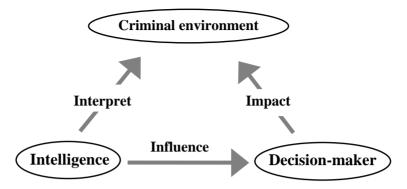


Figure 1 3i Model (Interpret, Influence, Impact) of the Intelligence-Led Policing Process (Source: Ratcliffe, 2003).

decision-makers, who in turn use the intelligence product to design strategies that have an impact on the criminal environment.

The UK National Intelligence Model targets specific areas of criminal behavior, aiming for increased community safety, reduced crime, controlled criminality, and reduced disorder (NCIS, 1999) and both the 3i model (interpret, influence, impact) and the NIM can be used to focus attention on a broad range of criminal activities. The additional component of the 3i model is the inclusion of the requirement to demonstrate the ability of decision-makers to formulate effective crime reduction strategies. Arguably this makes implementation of the 3i model harder, because it shifts the focus at the final stage of the process away from the intelligence or crime analysis cell and on to the leadership ranks of the police. These decision-makers are not left to this task alone, but can draw on crime analysis, intelligence, and a body of knowledge on police effectiveness before deciding on a suitable strategy. Indeed there have even been calls for analysts to take on a greater responsibility in knowing 'what works' in policing (Clarke & Eck, 2003).

In recent years, considerable effort has gone into the evaluation of police crime reduction strategies, and there is a growing body of literature that can be used to anticipate if a crime reduction strategy will have a chance of success (e.g., www.popcenter.org). The adoption of practical research into the policing domain may be increasing, though there is some evidence that many intelligence products go unused (Cope, 2004). If Gloria Laycock is right then the combined drivers of measurable outcomes, public suspicion with the effectiveness of traditional policing, and a more problem-oriented focus will require the police to more fully integrate research findings into daily strategies (Laycock, 2001). An intelligence-driven strategy clearly requires close communication between intelligence workers and decision-makers in terms of both intelligence findings and potential strategies that might be employed.

Defining a Successful Intelligence System

If the 3i model is used as the basis for an evaluation of a police service's adoption of intelligence-led policing, then caution should be exercised in its use, as all three stages

(interpret, influence, impact) have to be present for true intelligence-led policing. For example, if the 'impact' component is the only aspect of the model that is examined, then it may be possible to find that decision-makers are employing effective strategies. However, the choice and application of tactics may be conducted without the aid of effective intelligence, either by luck or word of mouth. This could be due to a lack of viable intelligence or worse, that intelligence is available but analysts are not able to convey the information in a timely manner in terms that have meaning and value to the decision-makers in the organization. For example, 'intelligence-speak' may aid communication between analysts, but this does not translate well to a practitioner market who still need to be convinced of the value of intelligence in the decisionmaking process (Nicholl, 2004). This application of strategy without intelligence may still be of benefit to the community and their notions of public safety, however, the long-term lack of criminal intelligence and crime analysis will limit the ability of decision-makers to evaluate crime reduction strategies, identify emerging crime trends, and recognize changing conditions in the criminal environment. In the end, without ongoing timely and accurate intelligence, police may struggle to correctly identify crime problem areas or emerging criminal groups. For example, there is evidence that police knowledge of the location of crime hot spot areas is not strong for certain offense types (Ratcliffe & McCullagh, 2001).

It is also possible for an intelligence cell to be able to influence decision-makers without the benefit of quality intelligence products that are derived from objective analysis of the criminal environment. Under these circumstances, they may be able to provide advice but it is not based on a thorough and objective understanding of the criminal environment. Assessment of risk in different areas of criminality may be flawed and the decision-makers are unlikely to have access to the 'big picture.'

Finally it is possible that an intelligence cell effectively analyze the criminal environment, but fail to convey the intelligence they glean to the rest of the organization. This is sometimes the argument of front-line police officers who complain that the intelligence unit is a 'black hole' where, like light sucked into a black hole, information goes in but nothing ever emerges (Sheptycki & Ratcliffe, 2004, p. 195). However, caution is required when relying on the client view of intelligence products. Many street officers complain that they get little from strategic intelligence analysts, but the strategic clients are often the top-level executives of an organization. While a strategic product can sometimes be of use to street-level officers, the main clients are usually middle and senior managers concerned with establishing resource priorities for the next year or two. What should be of more concern is when local operational commanders complain that they get no operational intelligence to assist with effective resource allocation.

A successful intelligence system is therefore one that is able to interpret the criminal environment, convey that intelligence to decision-makers, and influence their thinking so that decision-makers in turn design creative crime reduction policies that have an impact on the criminal environment. For evaluative purposes it is possible to examine an intelligence system component by component, and in doing so, sketch out an image of the functionality of the intelligence system as a whole.

Case Study: Evaluating Intelligence in Regional New Zealand

The remainder of this paper describes an evaluation of the criminal intelligence system in three districts of the New Zealand Police Service. For policing purposes, New Zealand is split into 12 districts geographically, each under a district commander. Each district is further subdivided into areas, usually under the command of an area controller. During February 2003, interviews were conducted with 50 sworn and unsworn members of the national police in three districts. The majority of these interviews were one-to-one in-depth interviews in a semi-structured format in order to investigate the effectiveness of the intelligence process in the three districts under review. The majority of the individuals interviewed were district and area intelligence staff, but the interviews also included district commanders and area controllers. The main focus of the study was to explore the relationship between the intelligence network and the primary decision-makers.

Semi-structured interviews were conducted. This interview style was used to direct the discussion to particular areas of investigation, so that it was possible to investigate the same issues with a number of different people. A 'decision-maker' format was used to direct conversation with command figures, and an 'intelligence staff' format was used to lead the conversations with intelligence practitioners. In this manner, there was some overlap of features, but the evaluation process was also able to explore different facets of the intelligence process as perceived by individuals at different levels in the organization. The advantages of a semi-structured format for this type of study are numerous. The interviewer is in a position to seek both clarification and elaboration on any matters raised. Furthermore, the technique sits between focused and unstructured interview methods and draws on both styles. This allows a thematic guide to initiate discussion and maintain focus, but also permits interviewees to respond with an answer that they have more control over (May, 2001). This is important as it enables the interviewee to explain the context of their answers. The interview findings were supported with content analysis of a number of internal documents provided by the NZP, including the most recent copies of the force internal audit process and performance review. These were used to correlate the perceived organizational objectives with documented performance evaluation criteria.

In order to summarize the findings of the study, the following sections deal with the three 'i' components of the 3i model, and explore the ability of the intelligence system in the three districts to interpret the criminal environment, influence decision-makers, and impact on the criminal environment. We begin with the issue of interpreting the criminal environment.

Interpretation of the Criminal Environment

This part of the study focused on two aspects of intelligence in the study area: the structure of intelligence units, and their ability to interpret the criminal environment. There was little discernable pattern in the composition of intelligence units across the region. In two of the three districts, emphasis was on a central district intelligence capacity with limited support to areas, while in the third there was little centralization and the intelligence capability was focused at the area level. The lack of similarity between units was immediately noticeable. For example, one area intelligence office had three analysts and two field officers, and no data entry personnel. The field officers were tasked to actively gather intelligence from surveillance, informants, or by interviewing arrested suspects. A neighboring district intelligence office had one supervisor, two traffic analysts, two serious crime analysts, a burglary analyst, a performance analyst, and six data entry personnel, but no field officers. The lack of guidance as to the appropriate structure or manning level for an intelligence unit meant that some units were well resourced and supported while others were barely able to perform basic intelligence functions. An area controller pointed out that if his analyst left to take on another role, the lack of uniformity would hamper the ability of the next analyst to take over: 'they would be basically floundering.'

It was also noted that there was little in the way of cooperation or intelligence sharing between intelligence units, either from district to district, or even within each district. An intelligence officer at an area station complained: 'my biggest problem is direction—I get none from [the] intel [office] at District HQ. No new ideas. It feels isolated here.' Where any arrangements existed they were strictly ad hoc and not formalized in any way. This lack of structure meant that some intelligence units seemed in a continuous state of confusion, a situation contributing to low morale. This was mentioned as a problem on more than one occasion. An area controller said: 'one of the problems with policing is that we are very slow to recognize that things we are doing aren't helping ... that's the case with some intel practices.'

Interpretation of the criminal environment does not just require a suitable intelligence structure; it also requires appropriate data sources and analytical tools. One district commander mentioned that his officers had 'done an internal audit and found a 50 percent error rate in data recording.' Clearly any intelligence is only as good as the data it originates from, and a 50% error rate is a serious cause for concern. For example, computer simulation of crime mapping scenarios suggests that 85% is a minimum acceptable geocoding rate for basic crime mapping (Ratcliffe, 2004), placing significant doubts about a 50% error rate in basic recording. The practice of entering paper records onto the local computer system was not only error-prone, it was also time-consuming and limited to two offense categories: burglary and vehicle crime. There was no time to record other offense categories.

As there is no requirement of patrol officers to enter data onto a computer, considerable time was spent on data entry in order to digitally transcribe paper records. At least one person in every intelligence office mentioned, during interviews, problems with data entry. The main issues were the lack of personnel, and the content of data entry training that had been available to those analysts who had received training. These individuals complained that the training had not covered hard skills such as those required to operate the various mapping and record management platforms operated by the NZP. As a result, data entry was slow and hindered the ability of the organization to identify timely intelligence. An Inspector in charge of a district-level intelligence office pointed out that in an internal study it had been shown to take 16

minutes to enter the details of a burglary on to the records management system, and that while they record data on modus operandi and the property stolen, 'nobody has time to analyze the stuff.'

Analytical training also was perceived to be a problem, though it was recognized that a new head of intelligence training had recently been appointed at the national level. Many of the intelligence analysts were essentially self-taught and this resulted in a wide range of abilities. As one analyst noted: 'I've had no training and have had to train myself. [If I left] it would take a month to get someone up to speed.' Those that had been trained had found limited value in the skills they received, typified by the comment of one analyst working in a busy district intelligence office: 'the previous analysts course was not relevant to high volume tactical analysis at the district level.' The NZP did not at the time have an intelligence directorate focused on local tactical and operational intelligence needs who could identify products and training needs, so local district officers made their own arrangements and tried to run in-house training for new staff where possible. Given that the quality of trainers varied, the quality of student learning was also perceived by analysts to be variable. Some intelligence analysts working alone at a station had never received any training at all.

Influencing Decision-Makers

There are two main components with regard to the ability of an intelligence system to influence decision-makers. First, it is important that the intelligence units are able to actually identify the influential decision-makers in the criminal justice system. Secondly, it is useful to examine the relationship between decision-makers and their intelligence staff. This helps to indicate the perceived value of intelligence to management, as well as indicate the formality of any information transfer systems from the intelligence cell to the decision-makers. The NIM, for example, formalizes this through the Tasking and Coordinating Process (NCIS, 2000). With regard to the first point, tactically focused intelligence officers and crime analysts in the NZP usually identified street-level officers as their main clients. The majority of all staff interviewed (intelligence and command staff) identified the street-level constables as the primary client for intelligence products.

At one district, the intelligence office was right next to the muster room so was well positioned to provide intelligence to patrol officers, but was located seven floors away from the District Commander, hindering information transfer to the higher echelons. At some stations, intelligence staff conducted the briefings of uniform officers prior to deployment to the streets. As one local intelligence manager noted, 'Line-ups [for uniform officers] take place in the intelligence office. We do the section briefs. It works well.' The difficulty with focusing on front-line staff as the primary decision-making client is that front-line officers are often employed on a range of duties, and when their main function is to respond to calls for service, the amount of time they have for proactive work can be limited. As a result, any proactive action is often a discretionary activity that uniform officers are able to engage with, or not, as they deem fit. This was recognized by one analyst who said, in relation to intelligence being acted on by front-line

officers: 'Service from the troops is slowly improving but still poor. [There is a] lack of responsibility. It is better to go through the supervisor to get *accountability*' (emphasis added). Accountability was seen as one way to ensure that something was done, or at least attempted, with intelligence that was provided by the intelligence staff, though only one analyst identified accountability as a lever to greater application of intelligence.

As identified by the analyst in the preceding quote, one way to achieve some accountability is to go through a higher rank. In the NZP, the District Commander is the highest rank at the local level. In this study none of the people interviewed, including District Commanders, identified the District Commander as either a significant decision-maker or the primary focus for intelligence products. Most officers never mentioned the District Commander in discussions of the intelligence system. At one district, the intelligence office was located in a different building some miles from the office of the District Commander. The most commonly identified individuals as decision-makers were the front-line officers, the section commanders, or the area controllers. The detective branch and the District Commanders were rarely mentioned, and never identified as the most significant clients of intelligence products. The manager at one district intelligence office said of the relationship with the District Commander: 'There isn't one. There is no consultation, he is too [non-crime] performance focused.'

Intelligence staff who worked in environments with definite leadership, clear areas of responsibility and accountability, and a structured command and control environment expressed confidence as to who they thought could impact on crime reduction strategies. In other areas, the identification of decision-makers was less clear, and when pressed on specifics the decision-makers were identified as 'whoever reads the bulletins' or 'the officers on the line-up.'

One way to assess the value of intelligence to decision-makers is to examine how often decision-makers task intelligence practitioners. The process of formally requesting and defining an intelligence tasking is the first stage in the intelligence cycle (Andrews & Peterson, 1990; McDowell, 1998; SCOCCI, 1997) and is client-driven. It therefore requires someone to request intelligence from an intelligence cell. When one analyst in the study was asked who tasked him, he responded 'I make my own decisions. I target the worst offenders.' He did not know the crime reduction priorities at the local and force level, and had no formal contact with the intelligence office that had oversight of the district. It was clear that at this location, intelligence was not highly regarded by the management and as a result had little or no influence over the decisions made to try and reduce crime. Commenting in regard to his level of contact with senior management, another intelligence manager commented: 'I've been set a performance management plan. It is updated yearly.' A strategic analyst recognized the lack of connectivity between intelligence and management, saying: 'I want to attend management meetings, be consulted more, be trusted more, be more involved.'

Impact on the Criminal Environment

Many intelligence purists consider that the intelligence function ends at the delivery of a product to the client. It is up to the client to understand and use the intelligence

provided. This may be the case in a military environment where military planners are trained and familiar with the use of intelligence to guide battlefield decisions, but in a law enforcement scenario the situation is different. Intelligence is a much newer concept within law enforcement and police management are often far less comfortable with the value of intelligence as an aid to operational planning. Here we explore the perceived value of intelligence, as well as the relative priority of crime reduction within the thinking of police in the study area.

Within the region, there were issues of behavioral and organizational change restricting the use of intelligence and its ability to make a valuable contribution to the work practices of many officers in the organization. These issues existed not just with front-line officers: there were also problems convincing front-line supervisors. As one middle-level commander commented, 'My intelligence officer often gets frustrated with shift commanders. He is powerless without my support.' An intelligence analyst noted, 'We have a real blockage with some leaders, such as the Sergeants in the teams and sections' (referring to her desire to promote more action-oriented intelligence use). There could be many reasons for this. It is possible that the quality of intelligence was perceived to be so low that there was little value in paying attention to any products. It is also possible that other products were not targeted to the areas perceived to be important: 'I'm getting mixed signals from our district and strategic analyst about what the problems are' (Area Controller). The same area controller went on to say, 'the intelligence people are working on Methamphetamines but this isn't our area or district priority.' In some areas, there was a clear decision-making chain in the form of a top down decision-making process. This one-way movement of information (downwards) received a mixed reaction. As an area controller said, 'At this District, the District [executive] are making more decisions ... which is good, but their influence is not evidence-based, which is bad ...' He concluded by stating, 'It is interference, not influence.'

In the areas studied, there appeared to be a considerable performance culture, which was distracting many officers and analysts from the crime reduction role. One intelligence analyst was disappointed by the lack of commitment to criminal intelligence analysis, commenting, 'Here there is a risk and performance manager, and a performance analyst. We haven't done tactical intelligence; we have done performance appraisal work.' Meetings in many places tended to focus on performance evaluation and concentrated on those aspects of law enforcement that could be easily measured. One middle-level commander said, 'The monthly district performance forum is not like a discussion. It's more focusing on the numbers and it is not a helpful review. There is no opportunity for managers to be a management team.' Although some intelligence analysts did get to conduct meetings with senior management, they were often asked to prepare reports that were not related to criminal intelligence. One commented, 'Intel meet the commanders at a monthly performance meeting. Intel produce performance stats ... including speed banding, traffic and leave balances. In many cases the tasking requirements asked of analysts drew the criminal intelligence function away from analyzing the criminal environment. The analysts ended up performing tasks unrelated to crime reduction, essentially becoming gatherers of administrative statistics.

Discussion

The problems with variation in the structure of intelligence units are numerous. In the short term, the lack of uniformity means that there is no ability for units in different districts to compare working practices and identify any sort of best practice. In the study, it was found that the structures were so different from unit to unit that any innovation in one area was rarely translatable to other locations. Some local flexibility of arrangements is often necessary, but the inconsistency of approach to unit structure meant that innovation in one area could often not be translated to the broader intelligence community in the three districts and beyond. In the longer term the range of unit structures may hamper efforts by the national police to train staff and identify suitable software and support packages, and may also hinder attempts to develop a uniform training program tailored toward a crime reduction strategy. Furthermore, the lack of uniformity in structure, intelligence products, and practices hinders any capability to ease the transfer of staff from one office to another, either permanently or even on a temporary basis to assist in times of staff shortages.

The ability to interpret the criminal environment was severely hampered by lack of tools, databases of variable quality, lack of information on emerging criminal areas, training deficiencies, and intelligence structures that did not streamline the communication of information around the system. One key area was the lack of data collection outside of vehicle crime and burglary, and in some areas, drug offenses. The implication of this limited data coverage is that it is difficult for the police to anticipate or recognize changes in the criminal environment. Existing priorities will remain local priorities, because the intelligence system is unable to monitor other offense categories, in essence creating a 'self-fulfilling prophecy' for local crime priorities (Sheptycki & Ratcliffe, 2004). By only having access to information regarding burglary and vehicle crime, these areas remain the focus of attention. In an organizational philosophy that is fixated with performance indicators, what can be measured ends up being what is considered important. This leaves the potential for new crime threats to emerge unnoticed. One district intelligence manager noted that taskings were based around an annual business plan, as well as, 'what we've always done.'

One noticeable theme that ran through many of the interviews was a perceived lack of understanding of the role and place of intelligence within the organization both locally and at the executive decision-making level. Leadership at the top of the organization sets the agenda for much that takes place at lower levels. A focus on performance management objectives that are not directly crime related can indicate to lower echelons that monitoring overtime management, monitoring sickness and patrol car mileage are of equivalent importance as the burglary and vehicle theft rate. This was repeatedly mentioned by intelligence personnel and decision-makers, and was reiterated through the pages of the performance management audits. While discussing problem-oriented policing, Tilley is scathing of these types of management methods, noting that 'the presently modish target setting, monitoring, and comparative performance indicators are anathema because their tendency is to steer the police toward centrally specified activity and objectives rather than problems as they emerge' (2004, p. 170).

Within an organizational framework that mixes criminal intelligence analysis and performance management, it is often difficult for decision-makers to employ intelligence staff effectively, having a knock-on effect with analyst morale. It also raises the issue of prioritization within policing. Are the aims of police commanders to reduce spending or to reduce crime? The probable answer is they need to do both; however, careful management is required to achieve a delicate balance of prudent fiscal management while still maintaining a crime reduction focus. Without a clear indication from management that crime management is the highest priority, it can send confusing signals to line officers cautious of not incurring the wrath of those who write their performance appraisals and who recommend (or not) middle management for promotion.

If the focus is allowed to wander from core police activity, then this has implications for the intelligence system. First, there does exist the potential for some benefit. In a leadership culture that is resistant to the benefits of criminal intelligence, performing management statistics may be a way for intelligence analysts to increase their influence with the executive. This could be of value if it engenders a more receptive audience when criminal intelligence is presented. While there is less time for criminal intelligence analysis, the analyst may find the trade-off is worth it if a greater amount of analysis is actioned. The evidence from New Zealand however, is that this trade-off does not benefit the crime reduction effort, and analysts become trapped into becoming management statisticians. The implications are generally therefore negative. Conducting less intelligence work will influence the way that analysts are tasked. In a regime that is not crime focused, tasking of analysts will move away from activities that feed into crime reduction, and toward activities that, while they may provide useful support for management, ultimately do not help reduce crime in any proximate fashion. Secondly, the lack of relationship of a crime analysis unit to crime reduction will erode support for an intelligence or analysis unit. If the units are not perceived to be symbiotically associated with the drive for crime reduction, then requests for improved personnel or resources in the intelligence cell will not be perceived to be a high priority. Thirdly, if the intelligence output is from an analysis department not inherently associated with the core mission of the police service in the area of crime reduction, then the intelligence product may not be used by the decision-makers in any attempt to influence the criminal environment. It may easily be ignored as the product of a management statistics department.

The final concern that emerges from this case study is the lack of clarity in regard to the identification of the key crime reduction decision-makers. The District Commanders were seen by lower ranks as divorced from the crime reduction strategies of the districts and relegated to administrative roles. In some circumstances, the District Commander and their intelligence staff identified different people as the decisionmakers who could drive crime reduction. It is telling that not one single intelligence officer identified the District Commander as a decision-maker or client for intelligence products.

At these sites, no one individual was considered accountable to deal with the intelligence provided, and this appeared to have an impact on the value of the intelligence. There was almost a Sisyphean air in some intelligence offices: intelligence products were produced, but rarely read and even more scarcely acted upon. After a while these products were superseded by newer analysis that received a similar fate. It could be the case that managers and front-line commanders were unable to incorporate the intelligence product into their operational thinking and planning. It is also possible that intelligence was perceived to be an attempt to direct resources and undermine the autonomy of the operational commander. In response to this lack of influence, many of the New Zealand intelligence staff poured their energies into the provision of tactical intelligence for uniform officers.

Unless specifically tasked, uniform officers in the NZP (as in most places) retain a high degree of autonomy as regards their patrol strategies. Under this type of system, as can be found in most policing environments, it may be that front-line officers are not the best decision-makers to attempt to influence. Even if they decide to act on intelligence, the intelligence provided usually has to be simple to comprehend, not timeconsuming to act upon, tactical in nature, and arrest focused. In a hierarchical system, sergeants, commanders, and senior executives with the ability to direct a broader array of resources and dictate the priorities at a regional level may be a more appropriate level to target. Consider that one street officer may be able to patrol a crime hot spot area, but effective policing of the area would probably rely on the officer not being drawn away for refreshments, reactive policing duties, or work outside of the hot spot. Conversely a higher ranked officer, once influenced by the intelligence cell into believing that the area has a significant crime problem, may be able to allocate a number of officers to the problem in a range of uniform and unmarked roles. The higher ranked officer may also be able to protect the operation to some degree, for example, by preventing reactive calls for service from interfering with the proactive activity by rotating officers through the operation or by drawing on other resources for reactive activities. Most importantly, the higher ranking officer can hold their subordinate staff accountable.

It is a reality that blame is now a part of the police culture, or more accurately, the avoidance of blame. If crime is not perceived to be under control, then it will be common for blame to be distributed around with some rapidity. It may often be easy to target the intelligence unit, with the common criticism that the unit is an information 'black hole.' If the unit is routinely directed to perform activities that have no relationship to crime control then this criticism will be justified—they probably do not have the time to disseminate useful intelligence. However if intelligence units are continuously tasked with unrelated activities, then it is unfair to blame the intelligence system: the problem may lie with the executive and senior management's concept of intelligence-led policing and how to effect crime reduction.

One feature of new management systems across the policing domain is the concept of managerial accountability. It is a feature of the new public management (Crawford, 1997) that is implicit in intelligence-led policing, and explicit in CompStat (McDonald, 2002; Walsh, 2001). Converting intelligence into evidence-based crime reduction tactics requires training in areas such as problem-oriented policing, training that at the time of the survey was not available in New Zealand. As said by one District Commander (who had a problem-oriented focus) in relation to his junior command

staff: 'We have people in leadership and management positions who were never expected to do the job I'm asking them to do.' Requiring accountability of management is a little harsh under these circumstances, but may become necessary over time. Although the street officer may be the easiest target for intelligence products, this may not be the best service to the public. When disseminating intelligence, the path of least resistance is not necessarily the best route to achieve concrete crime reduction.

Conclusion

In conclusion, it is important to state from the outset that intelligence-led policing and crime reduction are fairly new concepts for police services, not just in the antipodes but also across the world. Indeed, issues with the implementation of intelligence-led policing and intelligence models have been reported outside New Zealand (Christopher, 2004). This study should more realistically be considered an early qualitative benchmark of the state of intelligence services in the study area, rather than any indictment of the intelligence system in New Zealand. Indeed, this study was initiated by the NZP is response to a recognized problem in the management of intelligence in the study area.

Challenges identified here include the lack of training, data entry problems, lack of continuity in the structure of intelligence units, opaque chains of command for intelligence dissemination, a lack of clarity as to the principles of intelligence-led crime reduction, and a performance measurement culture rather than a crime reduction culture. This paper might leave the reader with the impression that the future would appear to be quite bleak. Not so. However, it is important to identify when systems are not functioning effectively in order to identify routes for improvement. The NZP is moving toward a more considered adoption of intelligence-led crime reduction, which may incorporate aspects of problem-oriented policing as well as a local variation of the UK National Intelligence Model. These mechanisms provide for a more objective understanding of the criminal environment and the ways to tackle it, and the intelligence and crime analyst should play a pivotal role at the hub of this process. The model that NZP are moving towards would appear to blend a problem-oriented focus with more effective intelligence use. Anecdotal evidence from a visit in 2004 suggests that significant advances have been made in the training of not only intelligence staff, but also local area commanders. These local command staff now receive training in both intelligence management and crime reduction principles, and have received instruction from a range of international experts.

It remains to be seen if police agencies, such as the one studied here, are able to move to a truly intelligence-led paradigm where all levels of the agency are able to both articulate the real purpose and objectives of intelligence-led policing as well as demonstrate support and commitment to this potentially powerful policing strategy.

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Note

[1] Speed banding reports show how many speeding tickets have been issued in targeted vehicle accident areas, broken down into different 'bands' above the speed limit (e.g., 10–15 kilometers per hour, 15–20 kilometers per hour, and so on).

References

- ACS. (2000). Intelligence doctrine. Canberra: Australian Customs Service.
- Andrews, P. P., & Peterson, M. B. (1990). *Criminal intelligence analysis*. Loomis, CA: Palmer Enterprises.
- Audit Commission. (1993). Helping with enquiries: Tackling crime effectively (Management Handbook). London: HMSO.
- Chan, J. B. L. (1997). Changing police culture. Cambridge: Cambridge University Press.
- Chan, J. B. L. (1999). Police culture. In D. Dixon (Ed.), *A culture of corruption* (pp. 98–137). Sydney: Hawkins Press.
- Christopher, S. (2004). A practitioner's perspective of UK strategic intelligence. In J. H. Ratcliffe (Ed.), *Strategic thinking in criminal intelligence*. Sydney: Federation Press.
- Clarke, R. V., & Eck, J. (2003). Becoming a problems solving crime analyst. London: Jill Dando Institute.
- Cooper, P., & Murphy, J. (1997). Ethical approaches for police officers when working with informants in the development of criminal intelligence in the United Kingdom. *Journal of Social Policy*, 26(1), 1–20.
- Cope, N. (2003). Crime analysis: Principles and practice. In T. Newburn (Ed.), Handbook of policing (pp. 340–362). Cullompton, Devon: Willan.
- Cope, N. (2004). Intelligence led policing or policing led intelligence?: Integrating volume crime analysis into policing. *British Journal of Criminology*, 44(2), 188–203.
- Crawford, A. (1997). The local governance of crime: Appeals to community and partnerships. Oxford: Clarendon Press.
- Dunnighan, C., & Norris, C. (1999). The detective, the snout, and the Audit Commission: The real costs in using informants. *Howard Journal of Criminal Justice*, 38(1), 67–86.
- Ericson, R. V., & Haggerty, K. D. (1997). Policing the risk society. Oxford: Clarendon Press.
- Flood, B. (2004). Strategic aspects of the UK National Intelligence Model. In J. H. Ratcliffe (Ed.), *Strategic thinking in criminal intelligence*. Sydney: Federation Press.
- Gill, P. (1998). Making sense of police intelligence? The use of a cybernetic model in analysing information and power in police intelligence processes. *Policing and Society*, 8(3), 289–314.
- Gill, P. (2000). Rounding up the usual suspects? Developments in contemporary law enforcement intelligence. Aldershot: Ashgate.
- GIWG. (2003). *The National Criminal Intelligence Sharing Plan.* Washington, DC: Department of Justice (Global Intelligence Working Group).
- Heaton, R. (2000). The prospects for intelligence-led policing: Some historical and quantitative considerations. *Policing and Society*, 9(4), 337–356.
- HMIC. (2001). *Northamptonshire Police: Intelligence led policing and proactive investigation of crime* (Best Value Review Inspection Report). London: Her Majesty's Inspectorate of Constabulary.
- HMIC. (2002). *Bedfordshire Police: Crime intelligence* (Best Value Review Inspection Report). London: Her Majesty's Inspectorate of Constabulary.
- James, A. (2003). The advance of intelligence-led policing strategies: The emperor's new clothes? *The Police Journal*, *76*(1), 45–59.
- Laycock, G. (2001). Research for police: Who needs it? *Trends and Issues in Crime and Criminal Justice*, No. 211, 6.
- Maguire, M. (2000). Policing by risks and targets: Some dimensions and implications of intelligence-led crime control. *Policing and Society*, 9(4), 315–336.

- May, T. (2001). Social research: Issues, methods and practice (3rd ed.). Philadelphia, PA: Open University Press.
- McDonald, P. P. (2002). Managing police operations: Implementing the New York crime control model—CompStat. Belmont, CA: Wadsworth.
- McDowell, D. (1998). Strategic intelligence: A handbook for practitioners, managers and users. Cooma, NSW: Istana Enterprises.
- McGuire, P. G. (2000). The New York Police Department COMPSTAT process. In V. Goldsmith, P. G. McGuire, J. H. Mollenkopf, & T. A. Ross (Eds.), Analyzing crime patterns: Frontiers of practice (pp. 11-22). Thousand Oaks, CA: Sage.
- NCIS. (1999). NCIS and the National Intelligence Model. London: National Criminal Intelligence
- NCIS. (2000). The National Intelligence Model. London: National Criminal Intelligence Service.
- New Zealand Police. (2002). Police strategic plan to 2006. Wellington: New Zealand Police.
- Nicholl, J. (2004). Task definition. In J. H. Ratcliffe (Ed.), Strategic thinking in criminal intelligence (pp. 53–69). Sydney: Federation Press.
- Pawson, R., & Tilley, N. (1997). Realistic evaluation. London: Sage.
- Quarmby, N. (2004). Futures work in strategic criminal intelligence. In J. H. Ratcliffe (Ed.), Strategic thinking in criminal intelligence (pp. 129-147). Sydney: Federation Press.
- Ratcliffe, J. H. (2002). Intelligence-led policing and the problems of turning rhetoric into practice. *Policing and Society*, 12(1), 53–66.
- Ratcliffe, J. H. (2003). Intelligence-led policing. Trends and Issues in Crime and Criminal Justice, 248,
- Ratcliffe, J. H. (2004). Geocoding crime and a first estimate of an acceptable minimum hit rate. *International Journal of Geographical Information Science*, 18(1), 61–73.
- Ratcliffe, J. H., & McCullagh, M. J. (2001). Chasing ghosts? Police perception of high crime areas. British Journal of Criminology, 41(2), 330–341.
- Ridge, T. (2003, October 23). Remarks by Secretary Tom Ridge to the International Association of Chiefs of Police Annual Conference.
- SCOCCI. (1997). Guiding principles for law enforcement intelligence. Sydney: Standing Advisory Committee on Organised Crime and Criminal Intelligence.
- Scott, M. S. (2000). Problem-oriented policing: Reflections on the first 20 years. Washington, DC: COPS Office.
- Sheptycki, J. (2003). The governance of organised crime in Canada. Canadian Journal of Sociology— Cahiers Canadiens de Sociologie, 28(4), 489-516.
- Sheptycki, J., & Ratcliffe, J. H. (2004). Setting the strategic agenda. In J. H. Ratcliffe (Ed.), Strategic thinking in criminal intelligence (pp. 194–216). Sydney: Federation Press.
- Smith, A. (Ed.). (1994). Intelligence led policing: International perspective on policing in the 21st century. Lawrenceville, NJ: IALEIA (International Association of Law Enforcement Intelligence Analysts).
- Tilley, N. (2003). Community policing, problem-oriented policing and intelligence-led policing. In T. Newburn (Ed.), Handbook of policing (pp. 311–339). Cullompton, Devon: Willan.
- Tilley, N. (2004). Community policing and problem solving. In W. G. Skogan (Ed.), Community policing (can it work?) (pp. 165–184). Belmont, CA: Wadsworth.
- Walsh, W. F. (2001). Compstat: An analysis of an emerging police managerial paradigm. *Policing: An* International Journal of Police Strategies & Management, 24(3), 347–362.