

# "How can Police Embed CPTED into an Evidence-Based Crime Reduction Culture?"

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## Abstract of paper:

*In recognition of the limitations of the reactive, offender focused strategies traditionally employed by law enforcement agencies, the New Zealand Police is exploring ways to proactively use crime science based approaches to prevent crime. This is a significant change in focus and requires an equally significant change in police culture. In order to facilitate these changes, the New Zealand Police are currently tackling five key challenges. The first is to assess the success of traditional approaches and consider new approaches that might be more successful e.g. CPTED. The second is to build a desire for change. The third is to become knowledgeable about the how to change. The fourth is to implement the new approaches. The last is to reinforce and sustain the change. In attempting to meet these challenges, a number of issues have been identified as potentially important in terms of the strategic dynamics of the change process. Specifically, in the case of CPTED, the experiences of the New Zealand police beg the question of whether the development of a crime-reduction culture is essential to embedding CPTED as a law enforcement practice or whether CPTED may itself be used to help to embed a crime reduction culture.*

## Introduction

The Bay of Plenty Police are on a journey to embed CPTED into an evidence-based crime reduction culture. This ideal requires significant changes in focus, operating style and culture in order to be successful.

## Change Model

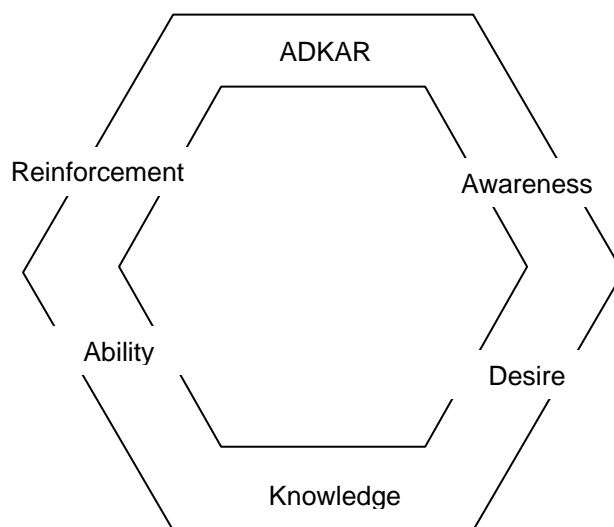


Figure 1.

The ADKAR change model (see Figure 1) provides a useful roadmap to describe Bay of Plenty Police's journey. This model was developed by Prosci (2000) after research into more than 700 companies undergoing major change projects. They found that failure normally happens when employees do not experience one of these change processes successfully:

- Awareness of the need to change.
- Desire to participate and support the change.
- Knowledge of how to change
- Ability to implement the change on a day-to-day basis; and
- Reinforcement to keep the change in place.

### ADKAR Model: People + Business Dimensions of Change

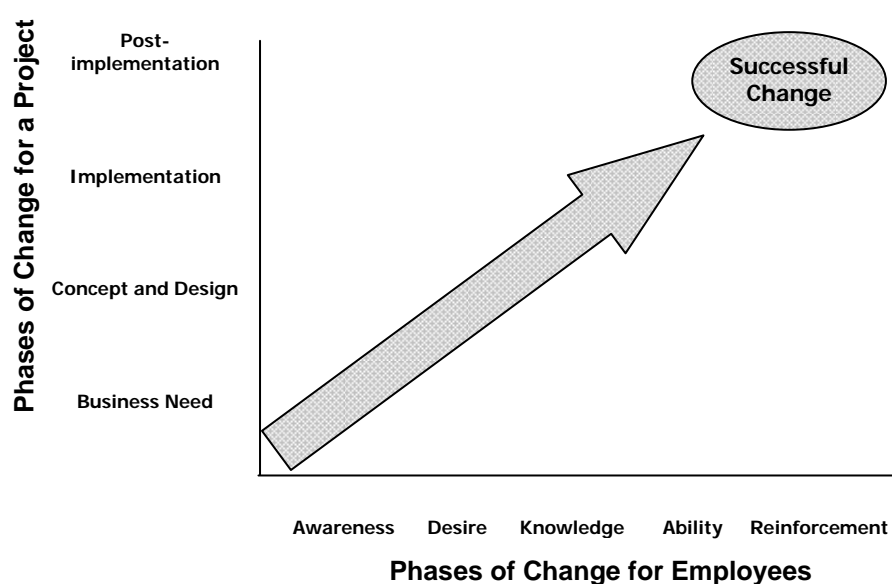


Figure 2.

Figure 2 shows that change also happens on a business dimension. This includes the typical project elements which managers are comfortable at managing:

- Identify a business need / opportunity.
- Define a project scope and objectives.
- Design a business solution.
- Develop new processes and systems.
- Implement the new solution throughout the organization.

While successful change happens when both dimensions of change occur simultaneously, this paper focuses on the more problematic people dimension of change. The Bay of Plenty Police have not traditionally had an evidence-based crime reduction focus, and this change brings with it some serious challenges to traditional police culture.

### Questions to Consider When Changing Direction

Within each of the phases, Bay of Plenty Police have an embedded belief, practice or operating style that needs to be replaced, shifted or bowed in order to embed our change

successfully. The Bay of Plenty is some way down the track with all of these changes, but not at the finish line with any one of them. Questions to consider when changing direction include:

- Awareness comes from comparing your results with your purpose. If your results are not aligned with your purpose, then you will be aware that something needs to change.
- Desire comes from seeing a better / easier way to achieve what you want. Seeing others be successful with it, wanting it because it looks good somewhere else and deciding that it's a good fit for you; that it will meet your needs.
- Knowledge is understanding what will make you successful and what success would look like.
- Ability is being able to implement the change. The test of ability is whether the decisions are followed by the practitioners.
- Reinforcement is achieved when you value (or measure) the results which align with the purpose.

There are logical reasons why CPTED can help us to embed each of the necessary culture changes.

### **Awareness of the Need for Change**

Traditionally when the New Zealand government has held Police accountable for their performance they have asked “What did you do?” and “How much did it cost?” Each year the New Zealand government gives the Police (almost) NZ\$1 billion. Now like governments across the world, the New Zealand government is also asking “What did you achieve with the money we gave you?” or in lieu of that “Why do you think that your actions (or outputs) contributed to that result (or outcome)?” These are perfectly reasonable questions – the first two are about financial accountability. The last two are about accountability for performance. If any business was investing such a large sum of money in a subsidiary, they would want to know about their return on investment. Creating an evidence-based crime reduction culture and embedding interventions like CPTED help us to know what works so that we can inform government about their investment decisions.

### *Purpose of the New Zealand Police*

Police are interested in the answer to this question for their own purposes. The NZ public and the NZ government want a safer community and that means less crime. The role of the NZ Police is to reduce crime. The only way that we can reduce crime is to prevent it and that means doing something proactive. There is very little that Police can do to prevent a crime from occurring once it has happened. The victim would much prefer that the crime had never occurred in the first place. There is also very little that Police can do to minimise the harm to the victim by reacting urgently. Yet the distinction between importance and urgency has become blurred in Police culture. The definition of important has become “urgent”. A more important activity is to prevent the crime from occurring in the first place. In this way, the victim doesn't incur any of the associated cost, inconvenience or emotional distress. Police don't have to respond to and investigate the crime, complete the paper work and if they are successful in identifying the offender, spend time in Court waiting for the hearing to begin. So interventions like CPTED are more important than reacting urgently. We haven't always thought this way – and there are flow-on effects from this change in focus.

### **Measuring Success: A Cost of Crime Reduction Model for Burglary**

One of these flow-on effects is measuring success.<sup>1</sup>

### National Weekly Burglary Trend 1994/1995 - 2001/2002 (incl.)

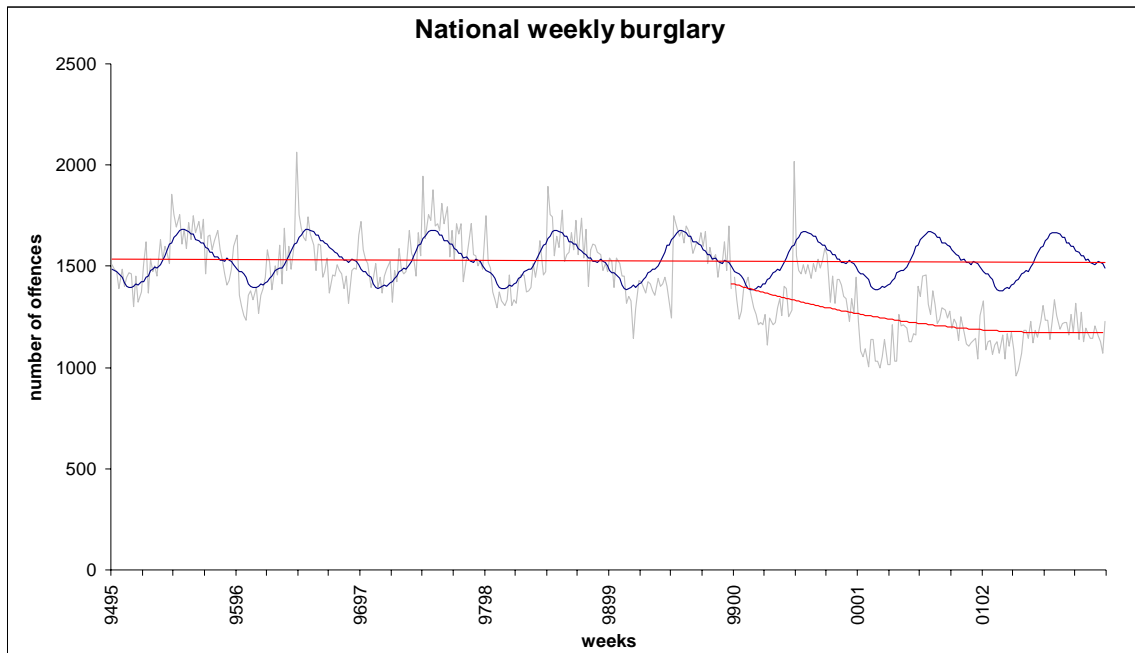


Figure 3.

Figure 3 is a graph of the weekly burglary trend from 1994/1995 up to 2002/2003. The pale line is the weekly result. The straight line is the (virtually level) linear trend line covering the same period and projected forward. The dark line shows a seasonal trend from till 1999/2000 and projected forward. The seasonal trend is as regular as a heart beat – until 1999/2000.

In 1998/1999 the New Zealand Police wrote a burglary strategy and set burglary as a major priority. Then burglaries began to drop away quite dramatically compared to their previously steady level. If we measure the distance between the projected trend line, and the later actual trend line you can see the difference between what would have occurred if we had carried on the way that we were, and what did occur. If we measure the difference between these two lines, we can calculate the number of burglaries that have been prevented. The difference between these two lines was 41,204 crimes. As at the end of 2003/2004, the figure now stands at 77,838.

We haven't been able to find a definitive cost of crime model, and we may never do so.<sup>2</sup> So we've used a very simple model using burglary to illustrate our point. The model only looks at two things: the estimated cost to the victim and the cost to Police in money (or time) to respond to and investigate the burglary. It doesn't include costs to the Department for Courts or Corrections. It is a very conservative underestimate.

<sup>1</sup> See also Reinforcement.

<sup>2</sup> "No study—in Australia or elsewhere—has ever fully assessed the myriad costs involved [in crime]. Rather, the main focus has been on what countries spend on their criminal justice systems (usually a matter of public record), and on some of the direct consequences of crime—though their full extent remains uncharted." (Mayhew 2003, p.7)

### *Fiscal Cost to the Victim*

Mayhew (2003, p. 37) estimated the cost of burglary to a victim at AU\$2,400. From analysis over this period, there was a drop of 77,838 burglaries since July 1999. This represented a saving to the New Zealand public of an estimate NZ\$37.4 million a year.

### *Police Time*

The average time that it takes police to respond to and investigate burglary is 16 hours. (This does not include, time spent in court for defended hearings). The New Zealand Police cost their time out at \$72.00 an hour (fully funded). So the cost to Police in money terms is \$1,152.00 per burglary. For planning purposes, the New Zealand Police estimate that a sworn General Duties Branch member has an effective work output of 1,530 hours. (This is minus leave, sick leave and training.<sup>3</sup> The saving in this period is equivalent to 162 Full Time Equivalent (FTE) staff, or 13.5 staff per District per year. This does not mean that Police get an extra 162 staff, but that their effective work output is not taken up with reactive response. It is then available to do proactive policing – and further reduce crime.

### **Building Desire for Change**

Crime reduction in police can be compared to a game where the objective is to score points in the opposition's half, but the traditional tactics are not working. In the Bay of Plenty we use a rugby football game for a number of reasons. It is the national sport and it is a common part of police social culture. While New Zealanders expect that the All Blacks will win and many young New Zealanders aspire to wear the famous black jersey, the All Blacks haven't won the Rugby World Cup since the first tournament in 1987. But New Zealanders dream of glory. We understand the agony of defeat and yearn for victory. After the All Blacks have failed (and the All Blacks coach is fired), there is much gnashing of teeth on talkback radio about the poor result. Recently talkback radio has inclined toward the opinion that the team needs to start the game with a superior strategy, but if it's clearly not working to abandon it mid-game and find something that does work.

### *Scoring the Game*

Estimates of the reported and recorded rates of crime vary depending on the study, but one estimate from the Australian Institute of Criminology is that for every thousand crimes that occur, 400 are reported to Police and 320 are recorded.<sup>4</sup> Regardless of the source, it is important to know that when we are talking of recorded crime, that we are not talking about reported crime or total crime – only a proportion of what actually occurred.

### *Objective of the Game*

We know that 1,000 crimes have occurred at our end of the field, and the aim of our game is to score points by preventing crimes at the other end of the field. Using the simple and conservative burglary cost of crime model, the cost of these 1,000 crimes to the victims is NZ\$2.4 million and to the Police is 10.4 staff. While there is initial pain for Police in adding proactive effort to a reactive workload, the trick is to get to the tipping point, where the benefits from reduced reactive work outweigh the efforts required to prevent the crime. How many crimes can we prevent for every crime that occurs?

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<sup>3</sup> The output for a road policing staff member is slightly higher as a significant proportion of their training is done on the road.

<sup>4</sup> The National Survey of Crime Victims in New Zealand indicates that the recorded number is even lower again – at around 150.

### *Crime Sciences Strategies*

Cohen and Felson's Crime Science Triangle tells us that three things have to coincide to create a criminal opportunity: An unguarded victim / target, a motivated offender and a suitable time and location. In order to prevent crime, we need to take out one or more of the legs of the stool. It can also give us some ideas about how we could get down the field. We could look at locations, offenders or victims.

### *Traditional Offender-Focused Strategy*

What we have traditionally done in the Bay of Plenty Police is focus on offenders and not use the 'other two-thirds of the field'. And for the traditional offender path, the Australian Institute of Criminology tells us that of the 1,000 crimes that occur 64 or 6.4% are resolved, 43 are convicted and 1 person goes to jail. When you look at the numbers in this way – you can see that we're not doing particularly well at the game. We may think that we have a high resolution rate, but it is not high when compared to total crime. Even if we performed the impossible task of resolving every offence that we record, this would still not even equate to a third of the total offences. Apparently the most rewarding sound that a police officer can hear is the sound of the cell door clanging shut as they lock up the responsible offender. But this sound – as satisfying as it is, doesn't reinforce an activity which assists us much with preventing crime.

(Spier 2002 a) found that the average custodial sentence in 2001 was 14.2 months. Currently people sentenced to prison in New Zealand serve a third of their sentences. On average, convicted offenders are going to jail for 4 months and 3 weeks. The median number of prior convictions for every offender receiving a custodial sentence between 1995 and 1998 was 20. If during their 4 months and 3 weeks in prison we estimated that they would have committed 15 crimes if they had not been in custody (an average of 0.75 crimes per week), then we could estimate that we had saved 15 people from being victimised and saved the effective work output of 0.16 staff.

This is of course, pure speculation. We don't have a good system in place to measure the frequency at which offenders are committing crimes. We would need to both know the number of offences that they had actually committed and the period of time over which they committed these offences. Offenders are naturally reluctant to voluntarily confess all of their offences to Police. Although the Bay of Plenty has some good custody clearance procedures (interviewing offenders at various stages in their path through the criminal justice system and gaining multiple clearances), we are not yet in a position where we are "held in such awe that every [offender] comes to surrender."

The other concern about this approach is the length of time that this preventative effect lasts for. Spier (2002 b)'s study on the prior and post conviction histories of the (22,340) inmates who were released from prison between 1995 and 1998 showed that:

*“Over a third (37%) of inmates were reconvicted of some offence within six months of release, over half (58%) were reconvicted within a year, three-quarters (73%) were reconvicted within two years of their release, and most inmates (86%) were reconvicted within five years.”*

Young offenders, offenders with 20 or more previous convictions and offenders serving short prison sentences were at the greatest risk of being reconvicted and reimprisoned.

What this tells us is that focusing solely on offenders and relying on the criminal justice system to reduce crime is unsuccessful. All this tells us that there must be a better way.

### *Location Strategy*

If we look at the Crime Science Triangle, our next most logical step is to look at locations. A small number of addresses tend to generate a large amount of crime. Sherman (1989) found that as much as 50 percent of all crime occurs at about 3 percent of addresses. At any given time in New Zealand there are 4 million potential victims or offenders, but not 4 million places in which crimes recur. While not all of the population congregates in the Bay of Plenty, it has sometimes seemed like that when disorder at our New Year holiday hotspots such as Mount Maunganui have got out of control. It makes sense for Police to focus their limited resources on locations to prevent crime regardless of the number of likely targets and motivated offenders passing through them. The other useful feature about locations is that we usually know where (if not when) a crime has happened, when the crime is reported to us. Instead of police spending their time trying to figure out what we are dealing with (i.e. who the offender is), we can spend our time and effort identifying locations suitable for re-design and applying CPTED principles. If we were to redesign 15 locations better, we might prevent an average of 10 offences from occurring in each of those locations both now and in the future. This would give us a cumulative saving of 150 crimes.

### *Victim Strategy*

We could also expect to get better results from focusing on victims, than offenders. For a start victims are more likely to notify us of their involvement in an offence than offenders are. And a very small proportion of victims account for a disproportionate amount of crime. The National Survey of Crime Victims in New Zealand estimated that 4% of victims experienced 40% of crime.<sup>5</sup> If we were to focus on the fifteen most frequent repeat victims, we might prevent an average of 10 crimes from happening to each of those victims both now and in the future. This would also give us a cumulative saving of 150 crimes.

### *Integrated Crime Science Strategy*

The other thing mistake that we make is to think that we can only run one strategy at a time. But we can change the rules of the game to suit ourselves; we can be operating in three parts of the field all at the same time.

### *Final Score*

If we look at the final scores, by following the traditional approach we prevent 15 burglaries and save the effective work output of 0.16 staff. Using an integrated crime science approach we would do 20 times better to focus on locations and victims as well, then just offenders. To begin with there is pain associated with doing proactive AND reactive work, because we'll never be able to give our reactive role away. The benefits come in the next round of the game, where instead of having to respond to and investigate 985 crimes (following the traditional plan) we only have to deal with 685 crimes – which means that we only need to deploy 7.2 staff to react to and investigate the crimes. It is then that we start to win.

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<sup>5</sup> Kershaw (2000) found similar results in the British Crime Survey 2000.

### *Team Members*

Police have traditionally thought that they are the only players on the team, but there are a myriad of organisations that we can work together with to tackle offenders, locations and victims.

### **Knowledge**

In New Zealand Police and the Bay of Plenty in particular, we are voracious consumers of research on what works. We want to know what to do and what it would look like to be successful. We have Rick Draper conducting CPTED training and send as many of our staff along as possible.

### *Communicating Successes*

While we are keen to get our hands on whatever knowledge we can, we are always conscious of the need to make this relevant to front-line practitioners. Cops love telling stories. It's the informal way that successes are communicated throughout the organisation. Because of the requirement to present oral evidence in court, we give great weight to the anecdotes that our colleagues tell. Usually for an idea to be considered successful by all, an officer need merely state that it was; that it achieved 'this' level of crime reduction. We are also keen to address situations immediately – the faster that we can attend to a problem the better – remember - urgent is important. So we are loathe to wait around and collect evidence about the success of an initiative before rushing off to tackle the next problem. There is nothing wrong with urgency, but we don't apply the same standards of diligence to collecting evidence about what works to reduce crime as we do to collecting evidence about who committed the crime.

The other thing is that the original circumstances of the crime reduction success, needs to be comparable to the circumstances that we face. Nay-sayers will look for any excuse to discount the evidence (applying the critical eye again). Best of all is when officers experience the successful initiative themselves and collect evidence so that we can tell the informal stories, but most importantly have the evidence to back it up. CPTED is a great way to start get this discipline worked through Police. It is logical, there is a discipline behind it, it's tangible, we get to work with our partners, everyone can see the value in it.

### **Ability**

Once the coach has examined all the evidence and set the game plan, the hard work begins. It is going to require a whole-of-policing team and that means that everyone on the team is going to have to follow their prescribed part in the game plan. This style of operating represents the most serious challenge to traditional police culture. One of the first things that police officers are taught when they go through their initial training is that they have discretion when arresting – they “may arrest”. They and they alone are responsible for their decisions. In police culture, we have taken discretion to apply to everything. Each individual believes that they can set their own priorities.

Evidence-based crime reduction requires a more co-ordinated approach than this. Individual constables are seldom if ever in the position to co-ordinate the variety of workgroups that this takes to be successful. In addition, individual officers are constantly being pulled off one task to respond urgently to another. To be able to embed CPTED and an evidence-based crime-reduction culture, someone must maintain a high-level perspective and balance tasks that are urgent with important ones.

## Reinforcement

It makes perfect sense to prevent crime and this is not a new idea. In 1829, Sir Richard Mayne, the Commissioner of the Metropolitan Police said “The primary object of an efficient Police is the prevention of crime: the next that of detection and punishment of offenders if crime is committed. To these ends all the efforts of police must be directed.” So what happened to this ideal in the intervening 175 years?

The Metropolitan Police stopped emphasising crime prevention at least partly because, they couldn’t measure it’s value. A common question from front-line staff is “If it didn’t occur, how could you tell that it was going to happen?” Measuring what didn’t happen is an interesting concept for police who have a strong evidence-based culture. Police are trained to put a cynical eye over information. The litmus test is “Would I be able to prove this in a court of law?” Instead the Met focused on what they could measure – the proportion of recorded crime that they resolved.

This had an important impact on the culture, because in the police what you measure get’s done. “If you count it, they’ll do it.” Awaiting the crime and reacting to it once it had occurred became well-entrenched. The story goes that old CIB practitioners would induct new detectives with the advice "Don't look out of the window in the morning, because, there'll be nothing to do in the afternoon." We have moved on from this in our journey, but in order to reinforce crime prevention we need to apply good evaluation disciplines to crime reduction.

## Conclusion

To successfully embed an evidence-based crime reduction culture, the Bay of Plenty Police must change the culture with every ADKAR change step (see Figure 5.)

<b>ADKAR Step</b>	<b>Questions</b>	<b>Before</b>	<b>After</b>
<b>Aware</b>	purpose	reaction	reduction
<b>Desire</b>	focus	offender	opportunity
<b>Knowledge</b>	success	anecdote	evidence
<b>Ability</b>	decisions	discretion	direction
<b>Reinforcement</b>	value	detection	prevention

Figure 5.

In awareness we have to shift our purpose from reacting to crime to reducing and preventing crime. In desire we have to expand beyond the limited offender focus to a holistic opportunity focus encompassing locations, victims and commodities as well. In knowledge, we have to bend the organisation’s informal communication style to our own purpose, so that we back our anecdotes up with home-grown evidence of success. In ability we have to shift the responsibility for making decisions from individual constables up to managers; from discretion to direction. In reinforcement – we have to learn to value not only detection, but prevention as well, and we need a good cost of crime model. Embedding CPTED is a very sensible way to achieve this change.

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