


Process Evolution

Change without rushing into the unknown...




**Optimised Resource Deployment:
Evidence for Cashable Savings**

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ASSOCIATION OF
CHIEF POLICE OFFICERS
Excellence in Policing Conference




Context

- HMIC report 'Adapting to Austerity' estimates £1.6bn of £1.9bn of required cuts will be through workforce reduction
 - HMIC believes that there is a £0.5bn spread across 26 forces that do not have completely costed plans
 - Believes that there will be increasing pressure on 'front line' resources post 2011-12 as there is a limit to back office cuts that can be achieved
 - This pressure is at odds with stated goals of reducing crime
- Three approaches cited by CFO John Bonney in a recent talk:
 - Ostrich
 - Accountant
 - Professional
- As the HMIC report states, efficiency of the frontline will be critical if 'more is to be delivered with less'
- HMIC also recommends sharing of information about the benefits from some of the options available
 - This is the goal of this presentation which will also seek to share some lessons learned
 - The focus is on effective deployment of resources in order to manage demand



Agenda

- The challenge and why it's difficult
- Overview of our evidence based approach
- Myths, mistakes and lessons learned
- A client perspective
- Summary – the evidence for cashable savings



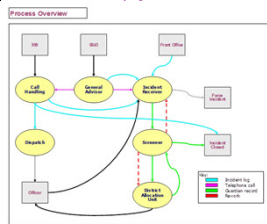
The challenge

- To reorganise the way in which policing is delivered in order to achieve the same or better outcomes with less resource
- Four main ways that we have observed forces grappling with:
 - Replace geographically based organisations with functional ones
 - Territorial policing replicates hierarchies of supervision and management across functions; in particular:
 - Response
 - Neighbourhood
 - Investigation
 - A 6-BCU force could replace 6 hierarchies with 3 for example
 - Supervisory ratios could become more cost effective
 - Encouraging cross boundary working
 - Gain an economy of scale
 - Changing shift patterns
 - Match resource availability more closely to demand
 - Considering shift patterns with fewer teams
 - Dealing with demand in a different way



Why is it difficult?

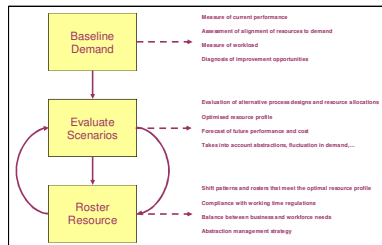
- There are 43 forces and 43 different ways of doing it
 - And if each force has 4 BCUs on average, nearer 172 ways!
- Demand is 24/7 and volatile in terms of occurrence, urgency and work content
 - Our capacity is also subject to random (and foreseeable) abstraction
- Processes aren't simple:
 - Consider trying to assess workload associated with crime investigation:



- Some crimes are visited prior to report
- Some crime related incidents may not be crimes
- Crime related incidents may only account for 30% of incidents
- There are 116 classifications under HO rules
- And within these, no two are the same!
- If we investigated a particular crime type in a different way, how much work is involved?



Evidence based approach



- Each stage is underpinned by advanced analytical software
- The visual, interactive and transparent nature of the software enables effective stakeholder engagement throughout
- The result is *practical and actionable recommendations for change that work* Chief Constable, Gwent Police



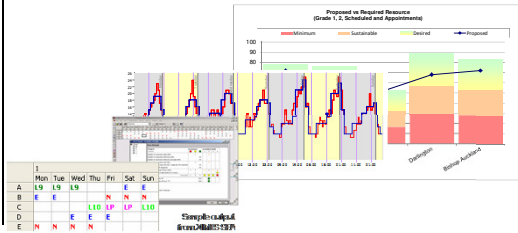
Resource Allocation Model

- Part of a structured methodology for accurately determining resource needs
- Primarily used for response policing, neighbourhood policing and volume crime investigation
- But principles extend to other areas of policing which can also be built in to the model
- Top down but built on detailed data available from operational systems
 - Uses 'workload triggers' for which data can be extracted from operational systems
- Enables viability of alternative options to be rapidly tested and 'pinch-points' established



Detailed modelling

- Static tools can only go so far
 - Simulation is needed to cope with the randomness and variability of real policing processes
 - Used in conjunction with XIMES we can roster officers where and when they are required
- The benefit is reduced waste and greater capacity when needed



So what have we learned..?

- Some common mistakes / pitfalls to avoid
- 4-team vs 5-team
- Other ideas

Pitfalls to avoid

- Setting hours of cover in stone without some maths first...
 - Rape investigation team to maintain cover of 1 person in each of 3 BCUs 16/7 and 1 person forcewide 8/7
 - Proposed team size of 12 (4 per BCU) in line with investigative workload
 - In theory, a 4-team pattern in each BCU might suffice:

Group	1	2	3	4	5	6	7
A	E	E	L	L	L	L	L
B	L	L	E	E	E	E	E
C	L	L	R	R	R	R	R
D	R	R	R	R			

- Some simple maths and it looks feasible:
 - 16 hour * 7 days * 3 BCUs = 336 hours
 - 8 hours * 7 days * 1 Force = 56 hours
 - TOTAL: 392 hours = 9.8 officers
- However:
 - 12 officers less 33% abstraction = 8 officers!!
- Options are overtime, lack resilience or change the policy



Common mistakes

- Calculating abstraction rates
 - Part of the problem is forgetting that the relief shift person is also absent 33% of the time
 - A typical mistake is to add a 33% allowance
 - E.g. if I need 67 officers on shift, then adding 33% means I need 89
 - In reality of course, 33% subtracted from 100 leaves 67, so 100 officers are required to provide 67 on shift
- Whilst on abstraction...
 - Remember to be consistent about what is counted where
 - We normally count abstraction for events that take a resource away for a whole shift, e.g
 - Leave
 - Training
 - Court
 - Sickiness
 - Breaks, admin and meetings are examples of what we would call 'other tasks'
 - Oh and don't divide leave shifts into 365!!
 - Shifts are of different length so use hours
 - Most people don't have 365 work days per year!!




Pitfalls to avoid

- Not seeing the project through
 - The job is not done when the shift pattern is designed!
- Consultation needs to be managed
 - Centrally funded project
- Implementation needs to be managed
 - Scottish Force
- Monitor the benefits and get to the root cause of variance
 - 'Response can pick that up...'
- Don't allow the rationale for change to be forgotten




4-team vs 5-team shift patterns

- 4-team shift pattern myths
 - Can reduce supervisory costs
 - But what are the ratios of sergeants to PCs?
 - Tend to give flat profiles
 - But can use split teams to overcome this
 - Result in greater visibility!?!?
 - The idea is that 3 out of 4 teams are rostered (75%) rather than 3 out of 5 teams (60%) on any day
- Brigading
- Diary cars
- Crewing





Other ideas to consider


- Brigading
 - Cross border support works well especially when travel times are within target response times
- Diary cars
 - Can guarantee single crewed attendance
 - Are liked by the public
 - Give high resource utilisation
 - The scale is not however 'we have a diary car operating on B Division'
 - Projects we examined looked at several diary cars operating 16/7
- Crewing policy
 - We often see considerable variance in the use of single / double crewed vehicles, even between BCUs in the same forces
 - In one force a district within a city achieved a 7% improvement against response standards for Grade 2s enabling it to achieve comparable performance to other districts with a much higher productivity




A client perspective



Summary – the evidence for cashable savings 

- We are a consulting led company with the infrastructure to support our clients to use our software tools
 - The software has to work or we don't get paid for our consulting work!
 - We specialise in helping the emergency service to meet the challenges posed by time dependent, volatile demand
- Our evidence based approach is proven across the police, ambulance and fire & rescue services
 - We have several fire and rescue services that are realising £m's of savings through their work with us
 - Several ambulance services have made step changes in response performance
 - We have numerous policing case studies
 - We've helped forces to avoid costly mistakes
 - We've achieved quantifiable cashable savings
 - We've underpinned major change projects that are yielding significant savings
 - You won't need an inquest into why so much money was spent! 

 **EIP**

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Thank you!

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