

# CREATING AN INNOVATION-CENTRIC POLICE DEPARTMENT: GUIDELINES FOR KNOWLEDGE MANAGEMENT IN POLICING

By  
**Michael R. Pendleton Ph.D. and T. Dave Chávez, Jr.**

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It is surprising, in an era of unprecedented innovation, that it is suggested that American police departments are showing signs of resisting innovation and change (Weisburd, 2001). While this view may seem to support conventional views of the police profession as intransigent and monolithic, it is inconsistent with the recent history of policing. Since 1990, the police profession has been immersed in innovation. Defined as a “philosophical revolution” (Malcolm, 1989) and the “most significant redefinition of police work in the past half century” (Wilson and Kelling, 1989) Community Oriented Policing and Problem Oriented Policing have become the dominant approaches to policing. Fueled by a crisis in policing these philosophical innovations along with management innovations such as COMSTAT and technological innovations such as crime mapping, have vaulted the police profession to the “cutting edge of criminal justice innovation” (Weisburd, 2001, pp 22). How then, could such a transformation be reversed?

David Weisburd (2001) has argued that such a reversal may be the result of declining crime rates and research evidence indicating police success in addressing crime and disorder. This view suggests that the crime and disorder problem is no longer the problem it once was to police. In effect, there is no longer a need to innovate. While aggregate measures of crime might suggest the police have mastered their craft, the relentless occurrence of high profile events sustains quite an opposite view. The 9-11 (2001) World Trade Center catastrophes, the Washington D.C. sniper, WTO riots and other high profile events are but a few of the on-going reminders that policing is an ever

changing environment requiring a constant commitment to innovation. An alternative view of why police might appear less committed to innovation may be found not in what causes an organization to be innovative, but in the distinction between adopting innovation and implementing innovation.

Over the last fifty years, the interest in innovation has exploded to make this area of research one of the most comprehensive fields of behavioral science study in history (Rogers, 1995 pp. xv). One outcome of thousands of studies has been the clear finding that innovation occurs as a process with distinct stages or phases. The innovation process in an organization is a five-stage process that is broadly segmented into two areas that focus upon initiation and implementation. This process begins and is subsequently advanced by the acquisition and use of knowledge and is formally known as the Knowledge Stage (Rogers, 1995). Discovery of innovations require organizations to constantly scan their environment to create *awareness knowledge* as the first step in the organizational innovation process. Implementation of an innovation requires “*how to*” *knowledge* especially in the case of complex innovations. While most organizations focus upon developing awareness knowledge, “*how to*” knowledge is essential to effective implementation of innovation (Rogers, 1995, pp 166).

Absent organizational structures and processes that facilitate innovation, organizations can operate in ways that defeat innovation, often at the implementation stage (Van de Ven and Rogers 1988)). Such may be the case with recent police innovations such as Community Oriented Policing and COMSTAT type accountability programs where there are indications that these innovations struggle to move beyond rhetoric (decision to adopt) to reality (meaningful implementation) (Pendleton 2002, Weisburd et.a.l, 2001, Pendleton, 1999, Taylor, Fritsch and Caeti 1998). In effect, police resistance to innovation may be more the result of inattention to building organizational policy and processes that effectively link the initiation and implementation process of innovation. If the police profession is to remain relevant to the challenges of the future, a more *innovation-centric* approach to organizational design and process may be required.

The purpose of this paper is to offer one approach and supporting guidelines for designing an innovative police organization. Specifically, this paper advances twelve guidelines for adopting and implementing Knowledge Management as an organizational development and management strategy for innovation in a police organization. These guidelines are based upon an extensive body of research of innovation and recent research on the nature of Knowledge Management and its potential application in the police profession (Rogers, 1995; Pendleton, 2002; Pendleton and Bueermann, 2003).

#### **INNOVATION AND KNOWLEDGE MANAGEMENT: BUILDING AN INNOVATIVE POLICE DEPARTMENT**

Arguably, the most neglected topic in the recent era of police innovation has been the central role of “knowledge”. This omission is significant for at least two reasons. First, knowledge and its management, is consistently viewed as a “bed rock necessity” for innovation in police problem solving (Geller and Swanger, 1995 pp 154). Herman Goldstein, in his seminal work on Problem Oriented Policing (POP) consistently emphasized the critical role of knowledge to the problem solving approach. Goldstein (1990) noted the difficulties of tapping implicit knowledge “stored in the minds of rank and file police officers” to analyze problems (pp 93), the importance of sharing knowledge with citizens as one aspect of solving problems (pp 114), the lack of a “tradition of proceeding logically from knowledge gained...to the fashioning of an appropriate response” (pp 15), and the importance of creating new knowledge through self critique (pp15) cross system knowledge sharing (pp 168-171) and research (pp 171-172). Quite simply, the management of knowledge is at the heart of Problem Oriented Policing.

Second, the recent adoption of innovations in policing, have followed rapidly growing trends that are knowledge-centric. Such trends include the expansions in computer based technology that facilitates processing and accessing vast amount of information to facilitate “data driven” decision making (Anselin et.al., 2000). Tactical

innovations have been implemented based upon the growth of knowledge about “what works” in addressing crime and disorder (Braga, 2001, Sherman, et.al., 1998), and the trend of research based knowledge dissemination which has been a central factor in the diffusion of police innovations (Weisburd, 2001).

The *knowledge-centric* nature of recent police innovations, clearly establishes the need for Knowledge Management as an innovation in and of its self. While Knowledge Management (KM) has been recognized as an innovation in the private sector (Hansen, et. al. 1999, Gore and Gore, 1999, Hickins, 1999), it is only now emerging in the police profession. Pendleton (2002,) in his study of knowledge management in policing has developed a model that identifies and links the initiation and implementation phases of innovation through the management of knowledge. Police knowledge management is a loosely bundled but interconnected set of management activities designed to capitalize on the intellectual assets of the police workforce (Pendleton, 2002). Knowledge management in this model is defined as a five part *purposeful organizational strategy* that is designed to:

- 1) Create an Innovation Environment
- 2) Capture Knowledge
- 3) Package-Share Knowledge
- 4) Apply Knowledge
- 5) Create Knowledge

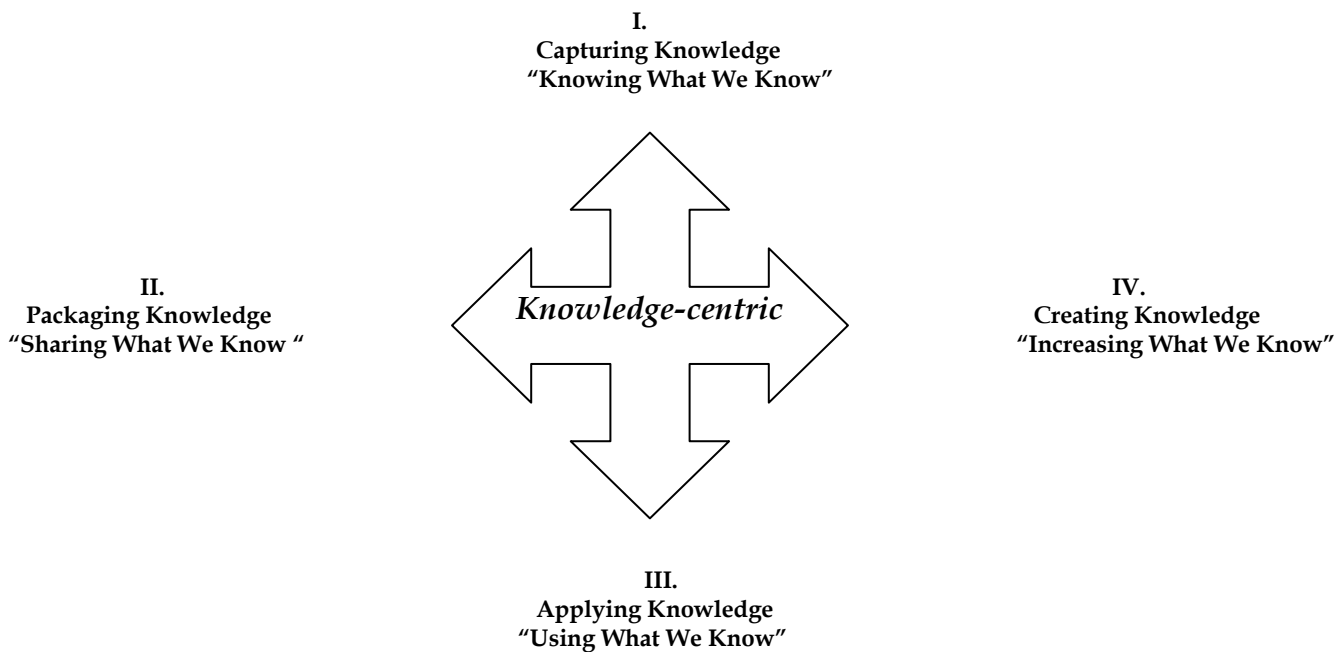
Knowledge Management is not a passive activity, but is a set of organizational design features and processes that are integrally related to organizational activities. This model recognizes that police departments contain vast amounts of untapped, often specialized, knowledge and routinely create knowledge through organizational action that is vital to successfully addressing contemporary public safety challenges. *Knowledge management is all about having the ability to share that specialized knowledge when another member of the organization needs it.* Quite simply, knowledge is viewed as an asset. One of the fundamental tasks of this model is to transform tacit knowledge, obscured within or around the organization, to explicit knowledge available for use and application.

*Tacit knowledge* has “an important cognitive dimension. It consists of mental models, beliefs, and perspectives so ingrained we take them for granted, and, therefore, cannot easily articulate. These implicit models shape how we perceive the world around us.” (Nonaka, 1999) *Tacit knowledge* has tremendous value for others in an organization because it represents expertise. When less experienced, skilled and knowledgeable employees have access to the *tacit knowledge* of experts and experienced specialists, they can perform at the level of those experts more often and more effectively (Bukowitz and Williams, 1999). *Tacit knowledge* can be shared either by being converted into *explicit knowledge* (e.g., a set of policies and procedures, or a set of documented facts) and documented, or through transfer as *tacit knowledge*, for example through a mentor, on the job training, or apprenticeships.

Known as an innovation cluster (Rogers, 1995), the four-part police knowledge management model provides a useful framework for understanding how knowledge can be purposefully managed to promote innovation in public safety organizations (see Figure 1 below).

**Figure 1.**

**POLICE KNOWLEDGE MANAGEMENT MODEL**



## I. GUIDELINES FOR CREATING THE ENVIRONMENT FOR ORGANIZATIONAL INNOVATION

Organizational innovation occurs for two reasons, crisis and/or a natural interest in being innovative Rogers (1995). In a crisis situation, such as that facing the police in the 1980's, organizations *need* to be innovative at least until the problems are solved. In this case, innovation is viewed more as an outcome or product. While police departments may have adopted recent innovations because they *need* to, the relative rapidity of the adoption of recent innovations (Weisburd, 2001, Weisburd et.al. 2001) and emergence of intrinsically innovative police organizations (Pendleton, 2002) also suggest a growing natural interest in innovation. Some police departments now *want* to be innovative because of their natural interest and view innovation as an on-going process that is reflected in organizational values, leadership, and structure. In this respect, the organizational environment is specifically designed to provide an established context for innovation. In effect, the organization becomes an innovation environment.

### GUIDELINE ONE: FORMALLY ADOPT AND PROMOTE AN ORGANIZATIONAL MISSION AND VALUES THAT FACILITATE KNOWLEDGE MANAGEMENT.

The literature and research data clearly establish the fundamental role of organizational values that facilitate rather than impede knowledge management. By formally adopting organizational values and beliefs that support Knowledge Management, there becomes a clear "expectation to be innovative."

**THE "COLLABORATION VALUE".** The most important value in the mission of an innovative police department is collaboration. Collaboration is the core element in capturing, sharing, applying and creating knowledge. Collaboration leads to key partnerships within and outside the police organization that includes individuals, groups and other organizational entities. Joint efforts, access to decision making and meaningful participation and exchange are evidence of collaboration. *Collaboration leverages existing expertise, locates best practices, and eliminates redundancy.* Both internal

and external collaboration transcends the limitations of technology and other unilateral approaches to knowing.

**THE “OPENNESS VALUE”.** Although police departments have traditionally been viewed as closed organizational environments, there is clear evidence that this is changing. Organizational openness is evident in the increasing access given to citizens (e.g., ride-a-longs and other avenues of participation) and to researchers from universities and other agencies. An organizational environment that is open to meaningful interaction with others facilitates collaboration. One of the most difficult barriers to accessing and sharing knowledge are the internal organizational boundaries within organizations. Often called the “silo effect”, the inability of organizations to defeat the physical boundaries (separate office buildings, precinct stations etc.) and the cultural boundaries (knowledge hoarding and inter-agency competitiveness) that prevent sharing and collaboration must be overcome. Creating an organizational value of openness clearly establishes the expectation that police departments will not only be open to others, but will in-turn reach out and become involved with others. The *connectivity* that results from pro-active openness is the key component of awareness knowledge that is essential for organizational innovativeness.

**THE KNOWLEDGE CONTEXT FOR POLICE SERVICES.** One of the most important features of the recent era of police innovation has been the simple fact that all the innovations are based in knowledge gained from research. The data driven nature of policing has been established and will continue to provide a knowledge-centric approach to policing. It is important to recognize that a knowledge based approach to delivering police services is not static but is being refined to the next generation of the models that were first introduced. A “knowledge management” based police department must adopt a service delivery philosophy that is data driven. An example of such an approach is the Risk Focused Policing Model. Risk Focused Policing is defined as “data and results-driven, community oriented policing and problem solving strategy which focuses on those factors in a community which places its youth and families most at risk for criminal and other problem behaviors” (Bueerman, 2000, pp26). This approach relies

on the extensive research on adolescent behavior and the application of assessment and intervention techniques that address the risk factors that underlie most youth problem behaviors. Models like this provide a “knowledge context” within which all organizational activities can be organized.

**GUIDELINE TWO: PRACTICE AND PROMOTE INNOVATION LEADERSHIP THAT IS CENTERED ON KNOWLEDGE MANAGEMENT.**

For knowledge management to become a core management activity in a police department, it must be adopted and implemented as a purposeful leadership innovation. Specific leadership behaviors are required to adopt and implement knowledge management.

**THE COSMOPOLITAN LEADER.** Because knowledge and its management are key ingredients to innovation, it is critical that the innovative police department establish and empower leaders who are cosmopolitan in their leadership style. Specifically, this requires police leaders to become firmly oriented and affiliated with a meaningful “outside” or external network. This network is most vibrant when it is not confined to the criminal justice system but extends to other sectors in the larger social system to include the private sector. The cosmopolitan police leader is on the “front line” of innovation through attendance to key conferences, special publications, regular interaction with the research community, and other connections often requiring extensive travel and interaction. In effect, the cosmopolitan leader is positioned to develop “awareness knowledge” as a key component in the management of knowledge.

**THE INNOVATION CHAMPION.** If Knowledge management as an innovation is to succeed within an organization, it, along with any other police innovation, requires an innovation champion. Without a knowledge management champion the innovation will die. A Knowledge Management champion is a charismatic individual who throws his/her weight behind the innovation to overcome resistance to become an effective organizational sponsor for adoption of the idea. The Knowledge Management Champion may or may not be the person who first encounters the innovation. The

selection of a Knowledge Management Champion should be purposeful to reflect the demands of both the initiation phase (decision to adopt) and the implementation phase. It is important that police organizations recognize and empower innovation champions within the organization, as they are often the risk takers who are most willing to initiate new ideas.

#### **THE 'AUTHORITY DECISION' TO ADOPT-'COLLECTIVE DESIGN' OF IMPLEMENTATION.**

The organizational innovation process is most accurately viewed as a five stage process spanning two distinct decision phases known as the initiation and implementation phases. Findings from innovation research have revealed that often the very organizational processes that facilitate the adoption of an innovation during the initiation phase, can work against efforts during the implementation phase of the innovation process. Several styles of decision making are available to organizations for the adoption and implementation of Knowledge Management. These approaches need to be tailored to reflect both the nature of the organization and the goal to both adopt and implement Knowledge Management. While police organizations have embraced contemporary management approaches that are based upon collaboration, they are still a paramilitary system that is based upon power, status and technical expertise. Police departments are not democratic organizations. Yet, it is critical to recognize that the police Knowledge Management innovation is an *innovation cluster* comprised of many distinct activities that are loosely bundled where the boundaries are not necessarily clear cut but are interconnected. Accordingly, the decision to adopt the Knowledge Management innovation should be what is known as an authority decision made by the Chief of Police and his/her command staff. However, the implementation process and subsequent decisions should be based in collaboration and freedom to adjust and mold the Knowledge Management initiative to fit the specific needs of the organization. Known as a collective decision making, this process should feature consensus and participation among the relevant members of the police department.

**GUIDELINE THREE: RE-STRUCTURE THE POLICE DEPARTMENT TO FACILITATE KNOWLEDGE MANAGEMENT.**

The adoption and implementation of the Knowledge Management innovation is both determined by and subsequently can affect the structure of the police department and its processes. While police departments have adopted new innovations, they have been reluctant to alter their basic structures to implement these innovations; if the Knowledge Management innovation is effectively adopted and implemented it will be important to remain open to altering existing organizational structures and/or creating new approaches.

**RESEARCH AND DEVELOPMENT AS AN EXECUTIVE FUNCTION.** One such structural change is the clear need to create research and development units within police departments that report directly to the Chief of Police. Typically, police research units are viewed as grant making machines focused upon bringing money into the police department. While grant making is a part of a Research and Development function, in a KM approach, the primary focus is the development of knowledge. These units can be structured to include crime analysis units as well as proactive research projects and serve both a tactical, as well as a policy function.

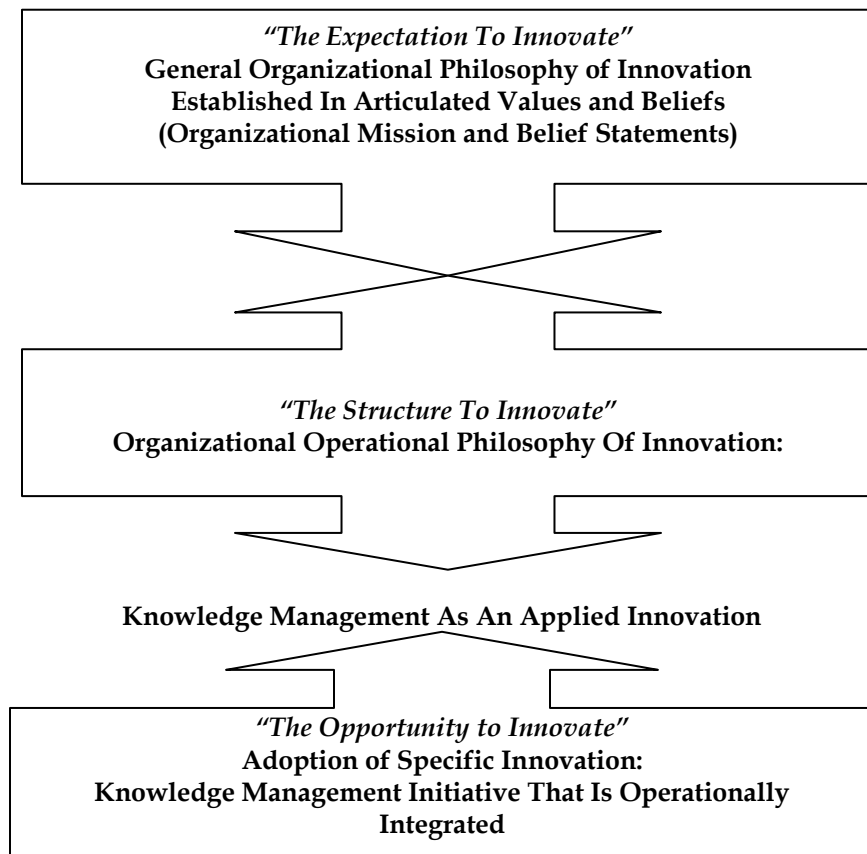
**EXTERNAL RE-STRUCTURING.** One of the most innovative police departments in the country has recently assumed responsibility for the parks, recreation and public housing functions of the city. This consolidation under the directorship of the Chief of Police was done to advance a more integrated approach to the implementation of Community Oriented Policing. In an era of scarce resources where innovation is clearly linked to both efficiency and effectiveness, bold new approaches that are consistent with the “community integration” movement can be a part of a KM restructuring strategy.

**THE ORGANIZATIONAL ENGINEERING APPROACH.** A fundamental feature of Knowledge Management is the recognition that employees’ expertise is organizational capital. Accordingly, the recruitment, retention and development of police personnel should be a strategic effort that is designed to enhance the knowledge base of the

organization. Such an effort requires a knowledge profile of the police department that reflects strengths, weaknesses and gaps in the organizational knowledge profile. Based upon the knowledge profile the police department can implement an organizational engineering strategy that includes targeted hiring and targeted training for personnel to fit the needs of the organization as a whole.

As a social system, organizations provide the context within which organizational innovation occurs. This context for the Knowledge Management innovation can be viewed as a three-part system that progresses from a general to specific orientation to innovation see figure 2 below. The organizational context for innovation is fundamentally established as a general philosophy that is articulated in the written value and belief statements. A second *tier of context* is innovation leadership that scans and champions KM within the police department. Finally, Knowledge Management initiated within a purposeful structure defines the operational implementation of KM.

**Figure 2**  
**ORGANIZATIONAL CONTEXT OF INNOVATION**



## II. GUIDELINES FOR CAPTURING KNOWLEDGE: KNOWING WHAT WE KNOW

The starting point for a Knowledge Management Initiative, is making knowledge that exists within and around the organization both known and available. This fundamental task is built on assessment and collaboration that transcends a knowledge continuum (Pendleton 2002) ranging from individual knowledge to organizational knowledge and finally community or social system based knowledge. Establishing a knowledge network as the focus of the “opportunistic surveillance” that is required for innovation is an important beginning of the Knowledge Management Innovation. Knowing what others know is at the heart of this first step in the Knowledge Management Model.

### **GUIDELINE FOUR: CONDUCT A KNOWLEDGE INVENTORY AND ESTABLISH A KNOWLEDGE REPOSITORY.**

The literature on Knowledge Management reveals the simple realization that organizations contain and have access to knowledge that is largely unavailable. In part, the lack of availability stemmed from the simple fact that there was little understanding of what knowledge actually exists within and around organizations. In effect, many organizations don’t know what they know (O’Dell and Jackson, 1998). To address this need it is important to conduct strategic knowledge inventories that encompass the both the internal and external police department environment. This assessment should document and then link “*know who*” knowledge with “*know how*” knowledge in four key knowledge areas: professional expertise, tactics, administrative process, and political-community understanding. The goal is to transform the implicit knowledge of the police in these areas to explicit knowledge that is available.

**INDIVIDUAL KNOWLEDGE INVENTORIES.** Much of the early efforts in KM have been focused upon what has been termed the “yellow paging” or cataloging of organizational knowledge and experiences that reside at the individual level. The purpose of this effort was to identify which individuals within the organization had what type of knowledge and to make that known and available throughout the

organization. A process approach such as this, known as “Yellow Paging,” provides the first rudimentary step in allowing members of an organization to know whom to contact to access knowledge on specific topics. In policing, yellow-paged knowledge can refer to specific skills or expertise and/or specific case or problem specific knowledge. The knowledge assessment can be conducted by supervisors who use software solutions and other technology based programs to establish searchable *expertise data banks*.

**CREATING KNOWLEDGE CAPACITY WITHIN THE POLICE DEPARTMENT.** It is well known that police departments have more data and knowledge stored than is ever harnessed for the delivery of police service. The underutilization of data is common in the policing profession and in many departments has rendered existing data banks as dust bins of data far removed from daily problem solving. The crime analysis unit of the police department can reverse this professional phenomenon by making both the unit and existing data banks accessible. One innovative application of police department data centers on knowing who in the department has had contact with specific individuals and/or places of interest in the delivery of police services. All reports and calls for service are stored in data banks as “event fields” that correspond to numerous characteristics of the case or event. This standard data acquisition and storage protocol can be harnessed by officers who want to know who in their department knows the people related to the case. In some instances, investigators can actually identify in chronological sequence which of their colleagues has had contact with an individual of interest and then convene this group of officers for a discussion concerning the case. The searching of the department data banks and creation of knowledge teams about cases is but one of several applications of the ability to identify and link police personnel to a wide range of case characteristics.

Technology for e-mail mapping known as Knowledge Mail, is now available to allow the use of keywords or phrases in employee e-mail to track expertise. When the user seeks colleagues who are knowledgeable about a topic, the system connects the employees by e-mail creating a knowledge community within the organization. Similar

technology known as Process Book is available to establish a knowledge bank of organizational processes. This system can be applied to both physical process, such as plant systems, or administrative activities such as budget or personnel processes. This software allows any employee to contribute their experiences, work processes, job procedures, task instructions for specific projects, and allow on-line access to background information. In effect, this system can document all relevant organizational processes and make them available throughout the organization.

**CREATING KNOWLEDGE CAPACITY FROM OUTSIDE THE POLICE DEPARTMENT.** One of the most important changes in the police culture during the recent period of innovation has been an assertive willingness to expand the police social system to include the surrounding community and organizational environments. Implicit in this expanded police community is the potential availability of a vast array of data and knowledge within various sectors of this external environment. Increasingly, it is possible and important to gain access to these knowledge repositories. The COMPASS project, recently funded by the National Institute of Justice is an example of access data from outside a police department. The very first phase of this project focused on identifying a diverse number of community agencies and organizations and forming a knowledge consortium that include the sharing of each others data to establish a comprehensive data infrastructure. This data warehouse includes data collected from a variety of sources (criminal justice, demographic, social and health, schools, hospitals, physical infrastructure, business data, etc.). In effect, the first step was creating a data center that held vast amounts of data from diverse settings that, when taken together, provides a comprehensive understanding of all the possible factors related to crime and disorder.

**APPROPRIATING KNOWLEDGE BANKS.** One of the more important developments in policing over the last 20 years has been the growing participation of the police profession in university-based research. During this period an extensive knowledge base has developed and is currently available in abstract form through a CD ROM subscription service that is also linked to a standard quarterly hard copy journal. This and other electronic knowledge banks are now available for search and review.

Literature searches and reviews of this vast reservoir of knowledge about policing are essential elements in capturing what we know.

**GUIDELINE FIVE: UNDERSTAND, PROMOTE AND ACCOMMODATE THE PROTOCOLS FOR ACCESSING DATA AND KNOWLEDGE.**

While knowing what we know is important, getting what we know we know is the ultimate objective of the first phase in the Knowledge Management innovation. It is critical to understand that gaining access to data and knowledge is often constrained by legal, cultural and practical barriers. Knowledge ownership, privacy protections, legal limitations, and the cost of retrieval and delivery must be accommodated in both formal and informal agreements to capture knowledge.

**CARE THE MOST ABOUT PRIVACY AND OTHER LEGAL CONSTRAINTS.** In an age of computer automation and technological advance, the ability to access knowledge has far out distanced protocols to protect privacy of individual. While criminal justice data is often constrained by law, even the best intentioned user can easily be in possession of data that is in violation of the law. Legal research and the use of an Institutional Review Board type process to address both privacy protocols and address legal issues is an established process for guaranteeing appropriate possession and use of knowledge. A genuine interest in this important social issue should begin with the police department.

**ACCOMMODATE CULTURAL CHARACTERISTICS.** Yet another reason that Knowledge Management efforts to capture police knowledge may be slowly adopted is that police culture is based in face-to-face situational interactions. Hansen and his colleagues (1999) identified two strategies for KM that are linked to the nature of the adopting organization. One, known as the *codification strategy* relies on documenting and storing knowledge for reuse by others. The other strategy is tied to person to person sharing and known as the *personalization strategy*. The long standing history of passing along the police culture via word of mouth and situational story telling when combined with the police aversion to 'paper work' suggests that a codification approach would not be quickly adopted in the police profession. Such a view is consistent with the data from this study where there was little enthusiasm for police problem solving "beat books"

and other programs requiring the documentation of problem solving outcomes and approaches as a KM effort (Pendleton, 2002).

**QUID PRO QUO.** It is important to realize that the process of an KM inventory and accessing data demands resources and has associated costs. Both individuals and organizations may be reluctant or limited in their willingness to provide data and knowledge without either compensation, or a return on their effort. Ultimately, the true value of KM is in its application. It is important that individual, organizational and community participants understand how they will be able to use Knowledge Management to further their interests. Often, the giving of knowledge is contingent on the receiving of knowledge.

### **III. GUIDELINES FOR PACKAGING KNOWLEDGE: SHARING WHAT WE KNOW**

Obstacles to effective knowledge management are common in closed organizational cultures where information 'hoarding' and 'command and control' management methods are practiced (Botkin, 1999). While police departments are increasingly opening up to new knowledge and the sharing of information, this represents a cultural change that is only emerging. For KM to be effective it is important to package knowledge in meaningful ways that naturally promote sharing. In this respect, sharing knowledge requires both Knowledge Management structure and process to facilitate application and access.

#### **GUIDELINE SIX: STRUCTURE POLICE KNOWLEDGE INTO POLICY, ORGANIZATIONAL AND TACTICAL PACKAGES TO PROMOTE MEANING AND USE.**

Police knowledge can be usefully categorized into Policy Knowledge, Organizational Knowledge and Tactical Knowledge and police KM needs to address these various types. Police KM systems need to be designed to process information and transform it into knowledge packages in preparation for application to selected problems. The packaging of these data will logically lead to an increased interest in sharing of this knowledge.

**THE POLICY KNOWLEDGE COMMONS.** It is both possible and important to package data within a broad community based program or process such as COMPASS, which is led by a multi agency and community based leadership team. Data from across the institutional spectrum can be placed in a data warehouse that is accessible in a variety of formats blending inter and intra net access with web-based software using G.I.S. mapping capability and analysis. The data can be pre-packed by blending key variables in a map format creating and promoting knowledge of those factors related to crime and disorder. The packaging of this knowledge can easily inform policy debates, problem selection and implementation of multi-modal solutions. In effect, this approach “democratizes knowledge” allowing access and linkages with the larger community and policy makers. While police departments are currently placing data about crime on websites, only through more comprehensive KM projects is that data being combined with a wide range of other data to create knowledge about the causes and potential solutions to crime.

**THE ORGANIZATIONAL KNOWLEDGE PACKAGE.** Crime and disorder data can be usefully packaged to inform organizational policy issues. The most well known packaging of knowledge is the COMSTAT program that uses crime mapping as a means to understand crime trends and but was specifically designed to hold police leaders accountable for addressing these trends. The packaging of organizational data, however, is in its infancy. Other more specific knowledge packaging is possible to focus on use of force, officer safety, budget and fiscal issues, training and education etc.

**THE TACTICAL KNOWLEDGE PACKAGE.** While crime mapping has been adopted by most police organizations as a means to display and understand crime and disorder, there are much more that can be done to package crime and disorder data to inform tactical strategy. KM for detectives should start with a specific understanding of the crime dynamic of the specific unit. Exhaustive literature reviews should be conducted to create crime types/profiles and associated dynamics as an organizing framework within which all situational case knowledge is understood. All unit data should be arranged to create a knowledge base what is available to analysis using place (mapping)

and crime dynamic analysis (movement and interaction). Data base downloads along with department wide “yellow page” scanning can create knowledge teams that are best suited for addressing specific cases (see figure 3). Patrol KM should focus on packaging data for use in real time mapping and crime dynamic analysis in preparation for each daily patrol briefing.

**Figure 3.**  
**A POLICE UNIT BASED KNOWLEDGE MANAGEMENT PROBLEM SOLVING MODEL**

<b>KNOWLEDGE MANAGEMENT PROCESS</b>	<b>DEPARTMENT UNITS</b> Auto theft, Burglary, Assault, Sex Crimes, Domestic Violence, Narcotics, Homicide, etc.
<b>1. LITERATURE REVIEW</b>	Establish an understanding of knowledge within existing research and professional literature. Informs data base and analysis process. Each unit in the department builds starts their crime analysis model based on literature.
<b>2. DATA BASE-DOWNLOADS FROM RMS AND DEPARTMENT “YELLOW PAGING”</b>	Establish a crime specific data bank download from RMS and other department data. This data will be specific to crime. Informed by literature and knowledge.
<b>3. STEPWISE GIS AND OTHER CRIME-PLACE BASED ANALYSIS</b>	Establish a stepwise crime analysis process that includes the all the crime dynamic variables and is plotted in a GIS format. Analysis used to plot past, current and projected crime activities. May purchase or develop analytical software.
<b>4. INTEGRATED INTERVENTION PLAN</b>	Craft an intervention strategy that has both long term and tactical elements. Plan blends a wide range of interventions from policy to tactical responses

**GUIDELINE SEVEN: CREATE ROUTINE KNOWLEDGE SHARING PROCESS NOT EVENTS.**

An essential feature of Knowledge Management is the sharing of knowledge with others as the means to desired outcomes and the successful application of all aspects of KM. Recent research clearly shows that when Knowledge Management is treated primarily as an “event” it acts to defeat establishing knowledge sharing as a

normal organizational routine. Knowledge sharing is most effective when incorporated as ongoing routines that have specific processes designed to facilitate sharing.

**THE KNOWLEDGE MANAGEMENT VEHICLE.** A fundamental feature of police Knowledge Management process is the creation of knowledge management process within programs or projects. Several examples, such as COMPASS, COMSTAT, and After Action Reviews, have specific process that defines the program, leading to specific application. In the case of COMPASS, there are processes for all of the components of the Knowledge Management model, while others, like After Action Reviews focus on only one part of the KM model. For sharing to occur the process should include multi-discipline participants and specifically require sharing and discussion of knowledge. Professional facilitation of the specific knowledge sharing process is important.

**THE KNOWLEDGE MANAGEMENT PLACE.** Recent research suggests that Knowledge Management sharing is not just a process, but is also a place. The police department library, the Research, Grants & Corporate Support Unit, and the Crime Analysis Unit (CAU) are examples of where knowledge “happens”. The observed linkage of a department library with the conference room is an interesting example of both the static feel of a repository of documented organizational knowledge, but also a dynamic quality where decisions are made by putting knowledge into action. In the case of the CAU, its central function, combined with its potential location in pathways, facilitates the “place” nature of knowledge. Unlike the conference room, where one must “belong” in meetings, CAU can be a completely open place where anyone can go during all hours of operation.

#### **IV. APPLYING KNOWLEDGE: USING WHAT WE KNOW**

The ultimate purpose of Knowledge Management is not simply to make knowledge available, but to apply it to reach organizational objectives (Williams, 2001). The application of knowledge can be focused on both external public safety problems, as well as internal organizational issues. Finally, police KM can be used to both select potential applications but also to select subsequent interventions or course of action.

**GUIDELINE EIGHT: USE KNOWLEDGE MANAGEMENT PACKAGES AND PROCESSES TO SELECT APPLICATIONS.**

The selection of applications should follow Knowledge Management process designed to identify and prioritize crime and disorder problems and organizational issues.

**COMMUNITY PROCESS.** Many knowledge management processes include a role for community participation and input. Leadership teams that guide a COMPASS selection process include community members. Other Community Policing forums provide specific processes that engage the community in identifying specific problems. Other key government process that inform political decision making and policy development are predominate ways to select KM applications.

**ORGANIZATIONAL PROCESS.** While police departments rarely engage in long range planning, those that do engage in a process to establish long term goals and objectives. KM process can both inform and follow from these long range planning processes.

**CRIME ANALYSIS PROCESS.** Most police departments utilize sophisticated crime analysis methods such as hotspot mapping to identify and select key problems for KM application.

**GUIDELINE NINE: AVOID USING KNOWLEDGE MANAGEMENT TO POLICE THE POLICE.** Throughout the Knowledge Management literature it is clear that if KM is used to police employees, then adoption will be unlikely (Lim, et.al., 1999). There is a long tradition in the police culture, to resist efforts to monitor police behavior. This cultural tradition would suggest a less than an enthusiastic approach to KM strategies that propose to monitor, even map inter-officer communication (Skolnick and Fyfe, 1993). It is not surprising that data on accountability efforts like COMSTAT show limited success, suggesting that other KM efforts like e-mail mapping would need to be carefully crafted. Failure to address this key issue is likely to result in the failure of any KM effort.

**GUIDELINE TEN: USE KNOWLEDGE MANAGEMENT TO SELECT AND DESIGN INTERVENTIONS AND SOLUTIONS.**

There is long standing evidence that Knowledge Management techniques are used in *routine* police activities to address crime and disorder problems. More recently, KM processes have been utilized to address police organizational issues. The use of comprehensive KM processes will allow for multi-modal interventions that will not only inform reactive strategies, but will facilitate preventive more proactive approaches.

**CRIME AND DISORDER APPLICATIONS.** The more visible and growing use of Knowledge Management techniques are in the area of *targeted* crimes. The use of crime mapping has evolved rapidly and is now used in front line police operations (crime and hotspot analysis) and investigations by officers (Groff and LaVigne, 1998). There is specific case study data that demonstrates the successful use of this Knowledge Management technique to address a wide range of issues from auto theft, burglary, rape, homicide, traffic accidents, and gang activity (LaVigne and Wartell, 1998; LaVigne and Wartell, 2000). As efforts to create mapping models that predict the location of crime (Weisburd and McEwen, 1997) become viable, it is likely that more departments will integrate this knowledge into the routine briefing and deployment strategies. It will be critical to make these applications time sensitive (real time data), effective (place officers at the predicted location to greet the offender) and process efficient (analytical up-front work that reflects the crime dynamic).

**ADMINISTRATIVE AND ORGANIZATIONAL APPLICATIONS.** Less apparent, but emerging is the application of Knowledge Management in the administration and operation of the police organization. Applications of KM like COMSTAT have met with limited success, primarily because of a focus on “policing the police” and their “event” process. Many other applications are possible ranging from Yellow paging for training purposes, to resource allocation decisions, to implementation of specific policing models such as the Risk Focused Policing approach (Pendleton and Bueermann, 2002).

## V. CREATING KNOWLEDGE: INCREASING WHAT WE KNOW

The creation of knowledge is clearly identified as a 'core' feature of Knowledge Management. The Knowledge Management challenge encompasses both how to learn from organizational experience and how to create knowledge through original research and development activities.

### **GUIDELINE ELEVEN: ESTABLISH SPECIFIC PROGRAMS AND PROTOCOLS FOR LEARNING FROM ORGANIZATIONAL EXPERIENCE.**

There has been a long-standing police tradition of valuing experience. This tradition has been focused upon individuals and the experience they gain throughout their careers. More recently, there has been a recognition that organizations can also learn from experience if they have a commitment to continuous improvement. Learning from experience can include both the experiences from within the organization and experiences that others outside the organization have also encountered.

**AFTER ACTION REVIEWS.** After Action Reviews or Critical Incident Reviews occur after police events or situations. These events can be large in nature or when officers are involved in incidents of a serious nature. A review process is created to include a synopsis of the event to include descriptive information (time, location etc.). Key questions guide the process such as, What did we do right? What could we do better next time? How do we share this learning? One of the constraints on this process is the legal liability, and related personnel actions often accompany reviews of difficult actions. These constraints often impede a complete and full understanding of an event (Pendleton, 2002) because of legal and personnel exposure. It is important to develop protocols to neutralize factors that impede full and complete participation and disclosure.

**LESSONS LEARNED.** A "Lessons Learned" program and is designed to use after incident reports to create and share knowledge from police related events. The reporting system is web based and is accessible by anyone. Those wishing to report on

an event, fill out a web-based form that includes identifying/contact information and then a response to the following questions:

- ❖ What was the most notable success at the incident that others may learn from?
- ❖ What were some of the most difficult challenges faced and how were they overcome?
- ❖ What changes, additions or deletions are recommended to various training curriculums?
- ❖ What issues were not resolved to your satisfaction and need further review? Based on what was learned what is your recommendation for resolution?

**PLACED BASED AFTER ACTION REVIEW.** A version of “after action” learning, focuses on the location or place of critical events. This learning exercise requires travel to the actual locations of critical incidents to learn from the events in their location. This learning technique features not simply the event, but the geographic location and dynamics of the event. This case study approach is highly structured with numerous learning objectives that feature the interaction between the geography and the case dynamics (Robertson, 1987).

**INTEGRATED AFTER ACTION REVIEW.** This technique uses a stepwise process to identify and map chronic and critical problems such as homicides to locate the ‘target place’ within the city. Then an after action review is conducted of all the recent homicides within the target place. All the key participants, both within the community and within the police department, are invited to meetings where a facilitated process is used to analyze the recent homicide cases in the target area. The process is guided by the following questions:

1. Do you know anything about this case?
2. What do you know about the victim?
3. What do you know about associates of the victim?
4. Was the victim part of a group of active offenders?
5. What do you know about the suspect(s) /offenders?

6. What do you know about the associates of suspects/offenders?
7. What do you know about the relationship between the victim and suspect?
8. What do you know about the location of the event?
9. What do you know about the motive in this case?
10. Was the incident drug related? How?
11. What do you think was behind the event (final summary)?

Following the after action review session, a place based analysis including site visits are conducted to understand fully the nature of the location of each of the homicides. This place analysis includes the location of the homicide and visits to the homes of relatives and other key participants within the geographic space surrounding the location.

Based upon this process the *crime dynamic* of homicide in this area is developed that included a focus on motive, relational dynamics and the characteristic of the places in which these homicides occurred. Based upon this analysis, interventions are crafted to address three distinct types of homicides that occur in the target area.

**THE INNOVATION EXCHANGE.** This is a collaborative program involving multiple law enforcement agencies. The purpose of the program is to allow employees from each of the participating departments to conduct a site visit to any department for 5-6 hours to observe how other departments operate and/or provide law enforcement services in areas that have been problematic in the employees department. The intent is to maintain “a competitive edge” by discovering how “our colleagues” are doing things better than “we are”. Employees are specifically instructed to abandon the mind set that “I know we do this better than they do” but to focus how “they do things better than we do”. The program material provides a guide of potential areas for examination to help employees focus on specific areas during the observation.

## **GUIDELINE TWELVE: ESTABLISH A SPECIFIC RESEARCH AND DEVELOPMENT PROGRAM.**

While initially the *subjects of research*, the police have evolved into *research partners* sharing the responsibility for selecting topics, managing the process, and disseminating the results. The next logical step in the creation of police knowledge is for the police to take the lead role in the creation of knowledge. The typical organizational model for this role is found in classic research and development units or departments. Police research must go beyond simply providing a statistical description of the department to actually employing trained researchers to both conduct research and liaison with Universities to do the same.

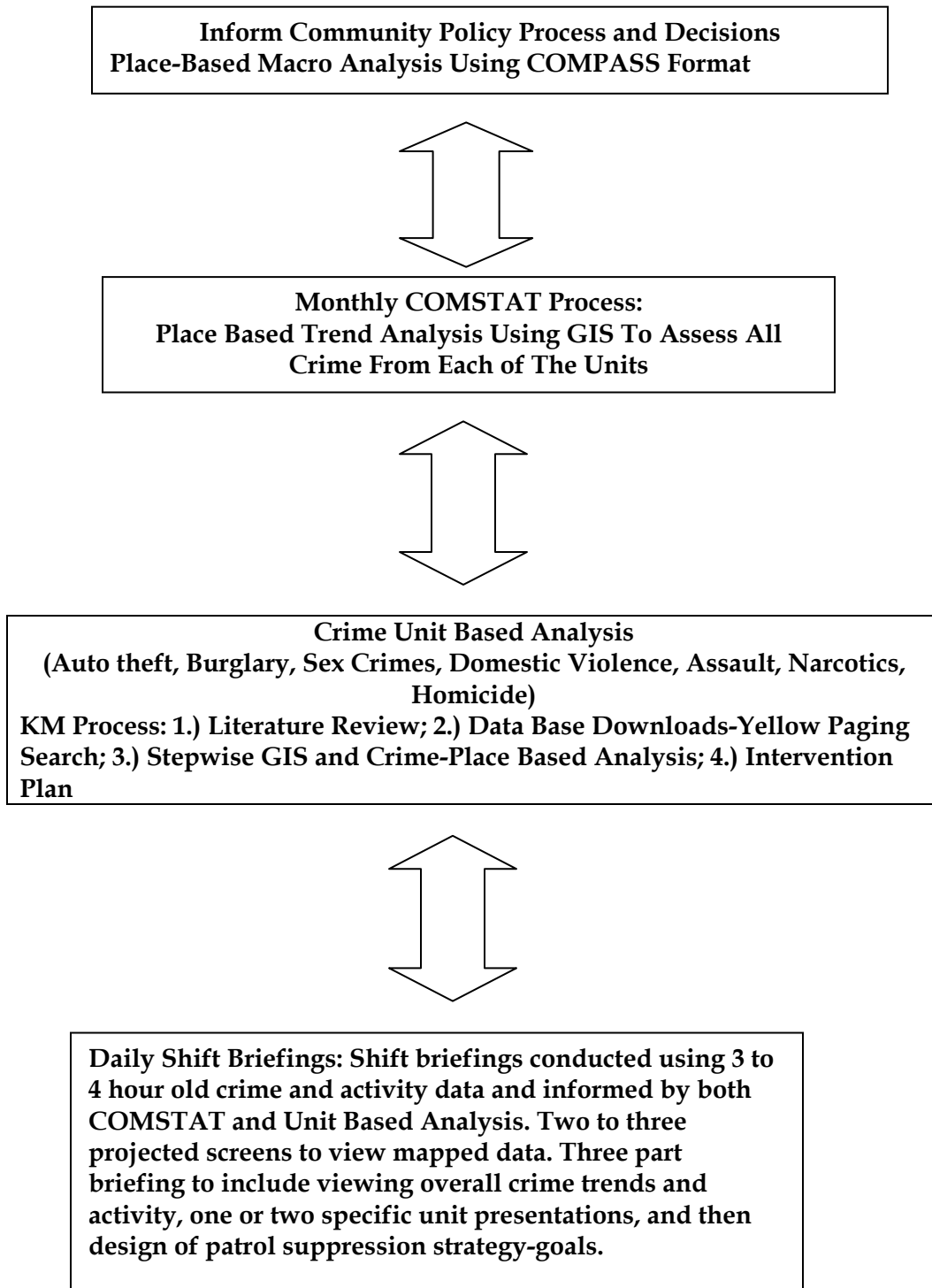
## **CONCLUSION**

There is little evidence that the police profession is aware of Knowledge Management as an overall management strategy, but is involved in KM activities in an incremental way. Knowledge Management, as a purposeful organizational strategy, is more than an innovation in itself, but is a fundamental part of the innovation process that is essential to sustaining an organizational culture that is based in innovation. If the police profession is to sustain its position on the “cutting edge” of innovation, there is a need to integrate the various KM techniques into an interrelated system (see figure 4). Such a system would link very specific crime type analysis with daily patrol strategies, monthly COMSTAT process and the larger COMPASS process that extends beyond the boundaries of the police department.

While police departments may have adopted recent innovations because they *need* to, the relative rapidity of the adoption of recent innovations (Weisburd, 2001, Weisburd, et.al. 2001) and the emergence of intrinsically innovative police departments (Pendleton, 2002) suggest a growing natural interest in innovation. When police departments *want* to be innovative, they will re-craft their organizational structure, policy and practice. In effect innovation will become an intrinsic value.

Figure 4.

**A KNOWLEDGE MANAGEMENT INTEGRATED INTERVENTION MODEL**



## References

Anselin, L., Cohen, J., Cook, D., Gorr, W., and Tita, G. (2000). In David Duffee, David McDowall, Brian Ostrom, Robert Crutchfield, Stephen Mastrofski, and Lorraine Green Mazerolle, eds. *Measurement and Analysis of Crime and Justice*, Washington D.C.: National Institute of Justice.

Atkinson, P. and Hamersley, M. (1994) 'Ethnography and participant observation. In *Handbook of Qualitative Research*, eds. Norman Denzin and Yvonna Lincoln, pp 248-261. Thousand Oaks, CA: Sage.

Botkin, J. (1999) *Smart Business: How Knowledge Communities Can Revolutionize Your Company*. New York: The Free Press.

Braga, A. (2001). "The Effects of Hot Spots Policing on Crime", *ANNALS* 578: 104-125.

Bueermann, J. (2000) 'Neighborhood Safety with Risk Focused Policing', *The Neighborhood Works Journal*. 18 (2): 25-31.

Bukowitz, Wendi R. and Ruth Williams. (1999) The Knowledge Management Fieldbook. London: Financial Times/Prentice Hall

Geller, W. and Swanger, G. (1995) *Managing Innovation In Policing: The Untapped Potential of the Middle Manager*, Washington, D.C.: Police Executive Research Forum.

Goldstein, H. (1990). *Problem Oriented Policing*. New York: McGraw-Hill Publishing Company.

Gore, C. and Gore, E. (1999) 'Knowledge Management: the way forward' *Total Quality Management* July, 554-560.

Groff, E. and LaVigne, N. (1998) 'The Use of Geographic Information Systems (G.I.S.) For State and Local Crime Analysis' Presented at the Conference of European Statisticians, Ottawa, Canada, October, 5-7, 1998.

Hansen, M., Nohria, N., Tierney, T. (1999) 'What's Your Strategy For Managing Knowledge?' *Harvard Business Review* 77 (2): 106-112.

Hickins, M. (1999) 'Xerox Shares Its KNOWLEDGE', *Management Review*, September: 40-45.

LaVigne, N. and Wartell, J. (1998) *Crime Mapping Case Studies: Successes In The Field*, Washington D.C.: Police Executive Research Forum.

- LaVigne, N. and Wartell, J. (2000) *Crime Mapping Case Studies: Successes In The Field Volume 2*, Washington D.C.: Police Executive Research Forum.
- Lim, K.; Ahmed, P. and Zairi, M. (1999) 'Managing for Quality Through Knowledge Management', *Total Quality Management*. July: 615-617.
- Malcolm, A. (1989) 'Cities try out new approach to police work', *New York Times*, March 29.
- Nonaka, Ikujiro. (1999) "The Knowledge Creating Company." Harvard Business Review on Knowledge Management, Harvard Business School Press.
- O'Dell, C. and Jackson, G. (1998) *If Only We Knew What We Know: The Transfer of Internal Knowledge and Best Practice*. New York: The Free Press.
- Pendleton, M. (1999) "Understanding Organizational Change: The Achilles Heel of the Contemporary Executive". Presented at an Executive Leadership Seminar for the Washington State Criminal Justice Training Commission, April 22nd, 1999
- Pendleton, M (2001). 'Charting a Course: Innovation Amidst the Perfect Storm'. Presented at the Annual Conference on Criminal Justice Research and Evaluation: Enhancing Police and Practice. Washington D.C., July 22-25, 2001.
- Pendleton, M. (2002) 'On The Threshold Of An Innovation: Police And The Management Of Knowledge'. Article in progress.
- Pendleton, M. and Bueermann. (2003). "Anatomy of A Police Innovator: A Case Study of Knowledge Management In Policing. Final Draft.
- Rogers, E. (1993) 'Diffusion and the Re-invention of Project D.A.R.E.', in Thomas E. Backer and Everett M. Rogers (eds.), *Organizational Aspects of Health Communication Campaigns: What Works?* Newbury Park, CA, Sage, pp. 139-162.
- Rogers, E. (1995) *Diffusion of Innovations*, 4<sup>th</sup> edn. New York: The Free Press.
- Sherman, L., Gottfredson, D., MacKenzie, D., Eck, J., Reuter, P., and Bushway, S. (1998). "Preventing Crime: What Works, What Doesn't, What's Promising", *National Institute of Justice Research in Brief*. July, 1998.
- Skolnick, J. and Fyfe, J. (1993) *Above The Law: Police and the Excessive Use of Force*. New York: The Free Press.

Weisburd, D. (2001) 'Translating Research Into Practice: Reflections on the Diffusion of Crime Mapping Innovation'. Presented at the Fifth Annual International Crime Mapping Research Conference. National Institute of Justice.

Weisburd, D., Mastrofski, S., McNally, A., Greenspan, R.,(2001) *Compstat and Organizational Change: Findings from a National Survey*. Prepared for the U.S. Department of Justice, National Institute of Justice. Police Foundation: Washington D.C.

Williams, T. (2001). 'Knowledge Management Initiatives Gain Foothold in Government', *Post Newsweek* , 15, #23.

Wilson, J Q., and Kelling, G. 'Making neighborhoods safe". *The Atlantic Monthly*, 134: 46-52.