Review and Analysis of Quality Improvement (QI) Techniques in Police Departments

By William Riley, Ph.D.

Associate Dean of the School of Public Health, University of Minnesota

Susan Nwoke, MPH Candidate

University of Minnesota

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Executive Summary

The purpose of this study is to review and analyze Continuous Quality Improvement techniques in police departments as a background document for Robert Wood Johnson attendees to a Public Health CQI Conference, "Adapting Quality Improvement (QI) to Public Health". The aim of is to explore the use of QI techniques in police departments to better understand how public health agencies can incorporate QI methods as well as learn about the potential barriers to implementing QI projects that are inherent in government agencies.

Police departments and public health departments have many elements in common. Both are government agencies, serve the community, have enforcement power, operate in highly visible environments, and must manage a multiplicity of agendas flowing from various stakeholders, occasionally in a politicized setting. It is felt that exploring the experiences of police departments with QI would be relevant and timely for public health agencies.

This report is divided into three sections: Section 1 provides an overview and summary of findings and recommendations. Section 2 gives the background and literature review. Section 3 gives case studies and guidelines. There are also three appendices at the end of the document.

Section 1

Review and Analysis of Quality Improvement (QI)

Techniques in Police Departments and Law Enforcement

Summary of Findings

There are four main questions that we explore in this report. We summarize the results of each as follows:

1.What is the nature of QI diffusion into police departments?

Quality Improvement has diffused into police departments and law enforcement in a way quite different from the health care industry. The application of QI in health care can be characterized by this generalization: a) the focus tends to be on separate QI projects done on an individual basis, b) the efforts are episodic and sporadic, c) QI projects may have top level support, the drivers are usually middle level managers and clinicians, and d) the projects are not part of a comprehensive program to be results driven and data based.

The application of QI in the police departments we contacted in this study are characterized by: a) an integrated management approach; b) a comprehensive system for the entire agency; c) a top management focus on results; d) a continual and renewable focus on results; e) a focus on community measures; f) being intensely proactive. As described by one police chief of a major metropolitan city, the management system is based on four factors: 1) timely intelligence; 2) rapid response; 3) relentless follow-up; and 4) holding people accountable. All five police officials indicated that the goal is to change the organizational culture from the inside out. This is done with leadership principles, quality techniques and continual improvement. While policing is focused on individual, it is best performed with teams.

The informants in this study were quite impressive in their leadership style and management approach. They all seemed to possess a dynamic leadership style and were

consistent in using QI management principles to drive the operation of their police department. The entire decision support reporting system was dedicated to ensure outcomes in the service of continual improvement.

In contrast, health care management systems are established to have extensive financial controls. Managers are trained, evaluated, promoted, and recognized based on their ability to produce stable operations in their department. The financial system is set up for timely feedback on monthly basis with variance reports for management follow up. Although many health care organizations have balanced scorecards for quarterly and annual Board of Director Presentations, they often tend to be showcased rather than the central focus of the organization.

2. What factors seem to be barriers and enablers of QI diffusion into law enforcement? What are the results/outcomes (intended and unintended) from QI in these settings

Barriers of QI diffusion

All informants indicated that barriers existed and resistance emerged when the QI approach was initially instituted in their agency. A common theme was police unions and civil service. But these were presented as changes to be made rather than barriers to overcome. However, they also became learning organizations as they evolved the practice. Perceptions that QI was an academic concept were seen as common barriers, as well as disagreement over how to measure quality and predictable resistance to change. For example, one police chief remarks typefies initial resistance by people included, "I'm too busy" or "what do you want me to stop?" in order to participate in QI projects. Also cultural mindsets were sometimes hard to break. As one informant mentioned, "it was like a bus driver who passes bus stops to stay on schedule".

Enablers of QI diffusion

The enablers seemed to be political leadership that demanded performance coupled with top agency leadership that established a vision, provided clear direction, constantly

communicated the mission and expected vigilance in accountability. Most respondents indicated that the wider city environment and its political leadership was an important factor in initiation a QI management system. In one case, a court order to improve performance precipitated a process improvement management philosophy.

Unintended Outcomes

All informants were able to identify unintended outcomes. These include:

-A focus too much on internal systems during the initial years of QI

implementation and;

-When changing culture, someone must admit that prior leadership was wrong.

3. Degree of QI diffusion in law enforcement.

We created a model with three levels to classify and describe the degree to which QI improvement is used in police departments in this study. Surprisingly, respondents from the police departments reported a much higher degree of QI in their departments than what was reported by the academic informants.

The concept of continuous quality improvement (CQI) is one that has been applied in business for many years. In many businesses the CQI process and methods have evolved from a low level recognition of QI as a useful application to improve service, to a high level of implementation using control charts and advanced techniques. We describe three distinct levels of QI for this report.

Level one: involves an awareness of the importance of providing improved services to consumers, and an interest in how quality is to be measured. This level includes assigning teams to focus on ways to improve performance.

Level two: Teams learn how to use QI techniques such as process maps, root cause analysis, run charts, PDCA cycles and control charts to analyze and interpret and improve quality.

Level three: The organizations use a specific a model for improvement to manage overall performance, redesign or re engineer the process for quality, and continuously improve.

Based on the literature review and discussion with academicians in law enforcement, we did not expect to find sophisticated application of QI in police departments. We found just the opposite. Each of the five police officials interviewed described an agency that was progressive and advanced in applying QI into his/her department.

We did not expect to find that all the police departments interviewed would be currently using advanced QI management techniques. Rather, we expected that some police departments would have experimented with QI, and then discard it for various reasons (lack of effectiveness, barriers to change, or poor leadership commitment). If this study was expanded to more agencies, we would not expect to find comparable levels of commitment or such progressive QI management system in place. Likewise, we expect the size of the police department to be a factor in the extent of integration of QI methods. All the police departments in this study were very large or medium sized. Smaller police departments may not have the scale or expertise to implement QI management methods.

4. What measures and metrics to police departments develop for their CQI projects? What incentives are in place to justify the use of QI in the absence of a profit motive?

Metrics and Measurements

The police department operations are performance driven on measurable results. The metrics used are not financial or efficiency metrics, rather, the metrics are focused on community service, customer satisfaction, and crime control. The basic metric is crime: crime reduction is the outcome measure. Crime reduction is continuous, it is not a target. There are clear analogs or public health agencies: a focus on community health and a continuous focus on health measures rather than targets.

There are a number of process and outcome measures that have been used for and could be used for QI projects in police departments. An example is shown in table 1. The table shows 23 metrics used by the NYC police department to assess performance. It is noteworthy that the data are reported for multi-year trends and a field performance target is also included.

Table 1. Example of Metrics

Performance Statistics (data is preliminary)	A c t u a l				
	FY02	FY03	FY04	FY05	FY06
Major felony crime	156,559	147,669	143,268	136,491	130,093
- Murder and non-negligent manslaughter	607	599	566	537	564
- Forcible rape	1,288	1,431	1,348	1,243	1,115
- Robbery	26,783	26,979	25,107	24,243	24,077
- Felonious assault	21,562	19,689	18,324	17,728	17,167
- Burglary	32,310	29,447	28,596	25,221	23,704
- Grand larceny	45,362	44,813	47,479	48,360	46,684
- Grand larceny auto	28,647	24,711	21,848	19,159	16,782
Major felony crime in housing developments	5,636	5,565	5,367	5,112	5,005
Major felony crime in transit system	3,667	3,437	3,220	3,383	2,709
Crime related to domestic violence - Murder	73	66	72	57	67
- Rape	381	384	410	402	407
- Felonious assault	4,912	4,395	3,999	3,805	3,605
Narcotics arrests	99,970	103,356	96,965	87,927	92,374
- Felonies	27,745	27,725	26,161	27,265	28,262
- Misdemeanors	71,442	74,867	70,140	59,985	63,413
- Violations	783	764	664	677	699
Guns seized by arrest				3,968	3,849
Juvenile arrests for major felonies	4,198	4,286	4,330	4,352	4,842
School safety - Seven major crimes	1,343	1,214	1,365	1,314	1,187
- Other criminal categories	4,257	4,419	4,774	4,741	4,659
- Other incidents	10,390	9,247	10,377	10,038	9,288
Gang motivated incidents	902	923	611	520	554
Counterterrorism training (hrs) - Uniformed members	13,738	86,428	232,629	315,523	195,845
- Non-members	8,190	51,188	21,386	32,084	21,863

While this data is intended to show the type of metrics used by police departments, the manner in which data are presented is equally important. Figure 1 shows a trend chart, a more powerful

way to display data. This chart can be converted into a run chart or control chart, if desired, for more sophisticated analysis and interpretation.

Fig. 1. Trend Chart
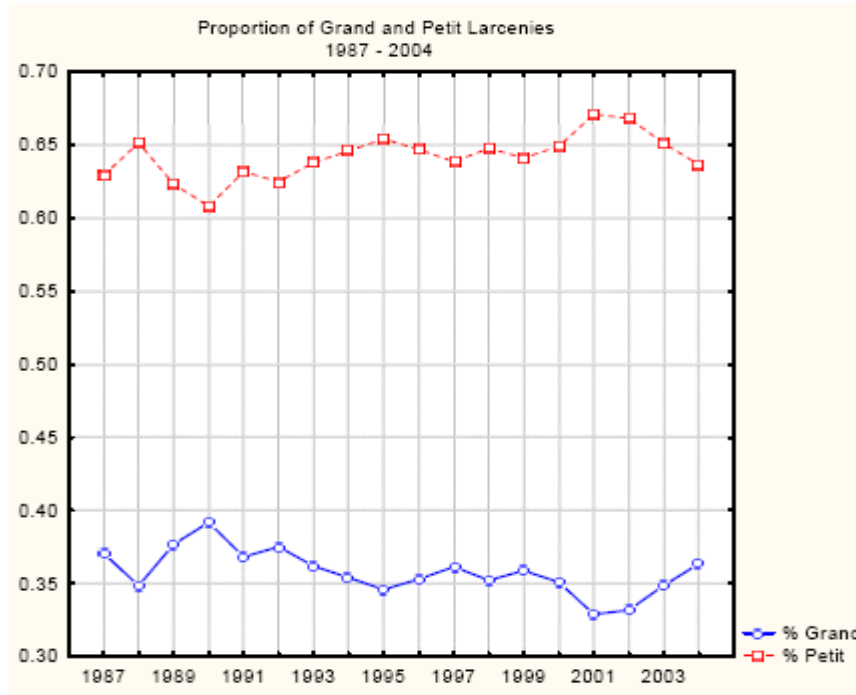
Source: Managing Crime Counts: An Assessment of the Quality Control of NYPD Crime Data.

Profit Motive and Academic Perspective

The informants from academic settings hedged their opinion that the lack of profit motive is a barrier to implementing QI in police departments. For example, informants mentioned if QI is "uncritically transferred to public agencies (from private sector), is would be problematic," and "it is one dimensional to drive down crime and distort the values. . . this leads to excessive use of force and poor service".

Profit Motive and Police Chiefs

In contrast, the respondents from police departments were unambiguously clear in the belief that the lack of profit motive is no hindrance whatever in implementing QI management techniques.   For example, "Law enforcement has expectations from the community to have

data, systems and outcomes. It must work better with fewer resources," and "Government dollars is a scarce resource too, and everyone is competing for it". Other comments from informants echo the same theme, " We are under more of a mandate (than for profit firms) to improve police response to citizens and that is even a higher moral and ethical responsibility because we are the government and we must provide service and ensure the public trust," and " the incentives are there. . . most people in police work have a commitment to serve the public, just like public health. . . there is a real desire to do a job in a way they can be proud of . . .it is a powerful motivator".

Caveat

While these findings are extremely heuristic, they should not be generalized beyond the agencies included in this study. It was beyond the scope of this study to examine agencies where QI is not so extensively diffused. We were unable to examine the management methods of those police departments that do not use QI by virtue of size, limited resources and lack of interest. Also, there is bias in this study. We selected agencies known to have used QI in the past.

Recommendations

There are many common elements of a police department and public health department. Both are government agencies, at the local level, have enforcement power, deal with communities, operate in highly visible environments, and occasionally must manage politicized issues.   They rely on evidence based methods, advanced data systems, and well-trained, committed individuals who are passionate about their mission. Successful performance is a dynamic non-event. When public health and police do their job well, it is not noticed. It is primarily when an incident occurs that media visibility and scrutiny occur.

There are obvious differences between law enforcement and public health. Police departments deal with violence, are reactive, and deal preponderantly with individual

interactions. Public health deals with prevention, is proactive, and has a focus on populations.

Police departments are based on a quasi-military model: command structure, ranks, weapons,

uniforms, and discipline. Public health departments are based on an epidemiologic and quasi-

medical model.

The results in this study provide useful lessons for public health agencies. We conclude

there is a significant amount of potential learning to transfer to public health from police

department practices. In this section we list and discuss eight recommendations.

Recommendation One: Consider implementing QI as a comprehensive management philosophy

rather than a project- by- project approach.

Discussion: QI is more effective as a holistic management practice rather sporadic, episodic

projects.   The police department officials in this study were elegant in their statements that QI is

a total management system directed to customer service, informed by data, and based on

accountability.

Recommendation Two: Top officials must set vision for agency and exhibit constant leadership.

Discussion: Implementing QI in public health agencies will work better and implemented faster

if it is embraced by the top leadership, communicated as a basic mission to serve the community

better, based on a vision of continual improvement, evidenced based, and incorporated into the

entire management structure of the agency. The police officials indicated there is a danger of

just going through the motions. If a leader decides to proceed with QI, do not overlay it onto the

organization, it works most effectively to integrate into the structure of the organization. One

police chief set a goal of achieving best practices. He indicated to his subordinates, "make sure

we are the best. . . I don't want to go to a conference and hear that another police department has

better results".

Recommendation Three: Use the lessons from police departments to overcome barriers.

Discussion: First, the lack of a profit motive is absolutely not a deterrent or obstacle to implement QI techniques and management practices in public health agencies. Next, several police officials mentioned that promotion process is set up to motivate officers to improve performance. One police chief remarked that "all precinct captains know that advancement depends on performance," and that, "the very effectiveness of serving citizens depends on quality improvement".

Recommendation Four: The focus on QI should not be a narrow and sole focus on numbers. The focus should be on mission and vision, continuously.

Discussion: The informants were quite emphatic in the proper use of numbers. While metrics are the main tool of QI, they are not the purpose of QI. The purpose is outcome improvement. It is not just to look at numbers for numbers sake.

Recommendation Five: Find creative ways to secure the resources necessary to implement QI in your agency.

Discussion: Having inadequate resources is an obstacle, but not insurmountable. Police departments have similar issues (the majority of police departments is under 10 officers). There are creative ways for small public health agencies to combine assets. While a small agency may not have the resources necessary to develop the data and systems, two or three agencies can do so together cooperatively. Also, there apparently is a trend in law enforcement that managers with extensive QI experience in large police departments often are appointed leaders in smaller police departments. If this model is transferable to public health agencies, it is a method over time that public health agencies can import expertise. The implementation of TQM and quality improvement techniques seems to be directly related to the size of the police department. The

preponderance of police departments in America is small, (under 10 officers). We were unable

to identify or locate any small police department that has formally implemented CQI approaches.

Recommendation Six: Selectively integrate proven methods from police departments and

medical care.

Discussion: Public health agencies should not indiscriminately import QI methods into its

management processes. Public health has a unique mission to improve the health of the

community, and requires specialized systems and skill sets.

Recommendation Seven: Build on the existing tools and capabilities currently available and

specifically developed for public health.

Discussion: There are extensive tools and methodologies available in public health which has

proven capability comparable to those developed in police work. These include Healthy People

2010, Assessment Protocol for Excellence in Public Health (APEXPH) developed by NACCHO

and CDC, the Community Health Improvement process developed by the IOM, HEDIS measures

from the NCAQ, the 10 Essential Public Health Services, the strategic planning process

Mobilizing Action through Planning and Partnerships (MAPP), sponsored by NACCHO, the

turning point model for performance management in Public Health, the National Public Health

Performance Standard by CDC and DHHS, and the Protocol for Assessing Community

Excellence in Environmental Health (PACE EH). Finally, an outstanding comprehensive service

of Continuous Quality Improvement in Public Health organizations was written by Glen Mays

and Paul Halverson which summarizes many of the tools and technology available in public

health for performance improvement. (Mays and Halverson, 2006)

Recommendation Eight: Conduct a self assessment for QI readiness in your agency.

Discussion: Implementing QI in your agency can be done if you want it to be done. It is your decision based on your assessment of the conditions and circumstances in your agency. A simple inventory is included in this document to help think through a plan for implementing QI in a specific agency.

Section 2

Background

This section provides a background of quality improvement for police departments by describing two common models for police management: "Problem-oriented Policing" and "CompStat". This is followed by a description of the scope of the project and data source.

Police departments have traditionally been responsible for crime control and prevention strategies. As crime problems have gotten more complex, traditional management approaches have become less adequate. There are at least two separate approaches to the management of police processes of conducting in-depth, systematic analysis and assessment of crime problems at the local level.

Problem Oriented Policing

Problem-oriented policing is the process of conducting in-depth, systematic analysis and assessment of crime problems at the local level (Goldstein, 1990). It is a method within the police agency in which formal criminal justice theory, research methods, and comprehensive data collection and analysis procedures are used in a systematic way to conduct in-depth examination of, develop informed responses to, and evaluate crime and disorder problems. The basic premise is that the acquisition of knowledge informs practice. Problem analysis represents a method of providing police agencies with the capability to conduct in-depth, practical research. It is essential that a police agency develop an internal capacity to use problem analysis to inform practice and examine crime (not the police agency itself). Thus, problem analysis is the process of acquiring knowledge through review of existing work and analysis of a variety of data to

examine the characteristics and causes of problems in the local context which in turn helps to

inform the crime control and prevention activities (Boba, 2003).

CompStat

CompStat is a management accountability process that was developed by the New York

City Police Department in 1994, under leadership of Police Commissioner, William Bratton. It

is short for COMPuter STATistics and uses geographic information systems to help map out

crime.   The CompStat is used regularly in major cities across the country, including Los

Angeles. The CompStat Unit was created to provide the NYPD with snapshots of preliminary

crime statistics which allow tactical planning and deployment of resources to fight crime. The

CompStat Unit provides critical information to the Police Commissioner and Chief of

Department compiling and analyzing preliminary crime, and homicide statistics, and

commanding officer profiles. It generates electronic pin maps of crime locations citywide;

analyzes geographical locations of shootings, homicides, and other major crimes; monitors

pattern crimes; develops advanced computerized crime tracking methods; and provides briefing

materials for the Police Commissioner. In addition the CompStat Unit gauges the crime-fighting

effectiveness of field commands by monitoring: arrest activity, responses to pattern crimes, bias

crimes, and the implementation of crime strategies. *Source NYPD Chief of Department webpage.*

http://www.nyc.gov/html/nypd/html/chfdept/chief-of-department.html

Scope of Project

The project is based on three sources of data: 1) key informant interviews with senior

officials from police departments (The chief of police or a senior executive) and academic

experts in law enforcement management, 2) a comprehensive literature review, and 3) CQI case

studies in law enforcement.

Key Informant Interviews

1. Subjects

Based on our literature review, we identified academic experts and researchers for initial contact. We focused on three objectives in these interviews: 1) To validate and verify the impressions from the literature review. 2) To gain information regarding their impression of how CQI is used in police departments and law enforcement, and 3) To identify experts in police agencies who they felt would be knowledgeable informants.

Next, based on a combination of the literature review and recommendations from academic informants, we identified 5 police departments for in depth interviews. All five police departments had received attention in the literature review for their efforts in progressive management techniques in policing and were recommended by two or more of the academic informants.   We endeavored to identify five police departments that represented geography, size, and region. The five departments were New York City, New York; Jacksonville Florida; Madison, Wisconsin; Ames, Iowa; and Los Angeles, California. These five departments are not representative or generalizable, but they do represent geographic distribution around the nation, an urban and rural mix, and large and small.   Overall, we contacted 4 informants in academic settings and 5 police officials (please see appendix A for a list of these 9 persons).

2. Data Collection

We developed and tested an interview guide to gather information from our informants (please see appendix B). The informants were contacted to explain the purpose of the interview and to schedule an appointment. All interviews were conducted telephonically by the principle investigator, usually with another researcher.   The interviews ranged in time from 35 minutes to 1 hour and 40 minutes. The average interview was 75 minutes time duration.   Notes from the interviews were transcribed and a content analysis was conducted to classify major themes and

categorize the frequency and nature of the responses. All interviews were conducted between January 6, 2007 and January 29, 2007.

<u>Literature Review</u>

While CQI techniques have been extensively applied in manufacturing, service industries and the health care sector, they have not diffused as rapidly in government agencies. There were two precursors to CQI in government agencies in the early 1990's. One of the first introduction of process improvement in government agencies was offered by an influential book <u>Reinventing Government</u> (Osborne and Gaebler, 1993), which introduced the then revolutionary idea that government does not have to be an inefficient bureaucracy. Rather, they describe a new model of "entrepreneurial government" that shifts limited funding from areas of less return to areas of high return in order to improve service to citizens. Second, at about the same time, the Government Performance and Results Act (GPRA) of 1993 required that federal agencies establish performance indicators to be used in measuring and assessing the outputs, service levels, and outcomes of each program activity (GAO, 1996). This legislation, mandated for implementation in 1999, was enacted because "waste and inefficiency in Federal programs …reduces the Federal Government's ability to address adequately vital public needs" (OMB, 2006).

The concepts of "re-inventing government" and "government performance and results" are very consistent with the goals of CQI and provide a solid foundation for introducing CQI techniques and methods into government agencies. While neither Osborne and Gaebler nor the GPRA legislation explicitly incorporate CQI techniques, they represent a useful tipping point because of the emphasis on entrepreneurial government with a search for more efficiency and effectiveness based on team principles.

Total Quality Management (TQM) and CQI are terms that are moving beyond being just buzz words to actual terms of practice. This can be seen in a number of organizations within the criminal justice departments. Corrections, Forensic Science, and Law Enforcement all utilize the techniques and methods in a variety of ways. However, the focus of each departments' services are still the same; to provide high quality and satisfaction to all the stakeholders involved.

Total Quality Management (TQM) refers to a "management process and set of disciplines that are coordinated to ensure that the organization consistently meets and exceeds customer requirements" (Hishmeh, 1998). This type of management process started out in the business sector and since the early 1990's, many government agencies including criminal justice and law enforcement have been implementing the techniques to measure the quality of services provided to the community and their customers. Both articles, "Total Quality Management" and "Quality Management and the Public Sector" outline and discuss steps for implementing TQM in the public sector and guidelines for implementation.

In corrections agencies TQM was also implemented and looked as a way to improve quality. Both "Total Quality Management: an Application in the Correctional Setting" and "Is Corrections Ready for TQM?" discuss ways that the corrections system started to implement the model. Simonson and Arnold discuss in their article critical applications into moving away from just talking about TQM to actually implementing TQM. This includes "identifying the corrections' client, developing methods to track performance, and ensuring that all team members seek continuous improvement in all operations". (Simonson, 1994) The article continues on with a discussion of each of these conditions that must occur to ensure success of TQM in corrections.

Juvenile corrections also looked at Quality Improvement/Quality Assurance techniques. Both Idaho's Department of Juvenile Corrections and Florida's Department of Juvenile Justice

are two areas where implementation has been very successful in "improving the level of practice and accountability of the system to its clients, stakeholders, and funding sources." (Wilder et al, 2004). In fact, "a sound quality assurance system can be effective in preventing the type of sensational headlines criminal justice agencies hope to avoid" (Criswall and Davis, 2004).

Corrections agencies took TQM a step further and looked at the approach as something that is continuous. In Stinchcomb's study on QI in corrections, the author looks at data from the National Institute of Corrections. The training academy of the National Institute of Corrections (NIC) began offering programs on TQM principles in 1993. One program entitled "Continuous Quality Improvement (CQI) in Corrections" attempted to enhance the capability of correctional administrators to put the management principles into practice in their agencies. Results from the study indicated that the training has been inspirational in beginning the evolution of organizational change. However, it is not clear whether advancing correctional management practices "is very meaningful without an accompanying transition of the public policy agenda, which places external requirements with continuous improvement" (Stinchcomb, 1998).

In the article, "CQI as a Management Concept for Death Investigation Systems", the authors states that "the medical examiners office is usually the endpoint for information from a system where information flows from various agencies where the end product is analyzed and distributed to a variety of consumers." (Dibdin, 2001) He continues to say that in order for the flow of information to proceed optimally in a language that the medical examiners office and all receiving agencies understand, the processes must be compatible in each area. The medical examiner's office is like any other business in which there are both internal customers and external customers. The author also adds that a mission statement helps outsiders understand the goals and the highly complex nature of the office an can communicate what the office is all about to those who utilize its services. The author also identifies six steps in establishing a

continuous quality improvement (CQI) program in death investigation systems which is very similar to the steps in corrections. These steps are as follows: identify internal and external customers, perform needs assessment, form teams and identify issues, develop solutions through teams, implement solutions, and monitor and analyze outcomes.

The book, *Fairness and Effectiveness in Policing: The Evidence,* identifies American policing as "highly diverse and decentralized as well as locally controlled and financed". (2) This can make a unified system for quality improvement difficult to measure and observe. However, the book does give recommendations on assessing the different styles of policing, which include problem-oriented policing versus community policing, to help improve the effectiveness and quality of policing in the organization. Stephen Mastrofski agrees and states that many factors influence policing in a way that drive effectiveness in a direction that stifles management directives, either through the use of CompStat, ineffective problem-oriented policing, or ineffective community policing (Mastrofski, 2007)

Quality policing involves not only defined leadership, but also effective management. S. J. Harrison mentions that Total Quality Leadership is essential in an organization. Total Quality Leadership (TQL) is similar to TQM in that it focuses on the customer or client and holds that customer satisfaction is the standard by which the organization must measure success. The author suggests that in TQL, the leader uses greater decentralization of authority, relying less on coercion and control and more on a democratic leadership style that emphasizes participatory decision-making. TQL is also similar to TQM in that if focuses on continuous improvement and requires top-level commitment to sustain the effort.

Section 3

<u>Case Studies</u>

1.) Law enforcement agencies also utilize TQM/CQI techniques. In 1991, Chief of Police David Couper and Sergeant of Police Sabine Lobitz from Madison Wisconsin developed a workbook for in coming police officers to educate them on quality improvement methods. This workbook, *The Quality Leadership Workbook*, was also available for use by other police agencies around the country and was written after the success of the guide *Quality Policing: The Madison Experience*. The Madison Experience is simply and account of how the members of the Madison Police Department worked as one to establish common management techniques. These management techniques were useful in establishing mission statements; actively neighborhood police districts, utilize community surveys, and set up advisory councils and committees. In this present workbook contains 9 parts: an overview of quality improvement, philosophies and values, a section on quality leadership, group and interpersonal skills, Tools for quality improvement, current policing methods, a section on the Madison experience and exercises that members can use.

The authors mention the old system of measuring quality by inspection, which was a linear process. The process involved methods and materials that were imputed into a process. The output was then inspected by leaders and those units could be mistakes, errors, defects, or scraps. The end of this process was then seen by the customers. The new process of measuring quality involved quality by continuous improvement. The main linear model was still in place; however the change came when the "voice of the employees" could improve ideas or the system at the outputs section. Another change was that the "voice of customers" could also improve the process by changing needs and expectations. Both of these changes can then be implemented at

the beginning of the process and is continually looked at.   This new workbook also gives a brief overview of the Kaizen theory of improvement and Deming's 14 principles of quality.   The quality improvement tools that the authors reference come directly from the Kaizen Method. These tools include pareto diagrams, cause and effect diagrams, histograms, control charts, scatter diagrams, graphs, check sheets, and flow charts. The main points they stress is that more data helps police agencies manage better, all data has variation and that variation is caused and this cause can be special cause or common cause. Knowing this difference is what the authors' state is essential for improving quality. Another main point that the authors point out is that "run charts are useful tools for distinguishing common cause and special cause variation—statistical control charts are even more powerful". (Couper and Lobitz 53)

2.) One other tool that has been helpful in law enforcement is benchmarking. The author gives a description of benchmarking methods, which are apart of a larger system of development known as Total Quality Management (TQM). William Gay explains the components of TQM and how benchmarking is "a continuous process and quest for best practices that lead to superior performance in law enforcement services through the implementation of innovations." (13) He also goes through the benchmarking process by identifying 10 steps: Identifying what to benchmark, identifying benchmark partners, collecting information, determining performance gaps, communicating findings, establishing improvement goals, developing action plans, monitoring implementation, evaluating results, and then recalibrating the benchmarks. All information that is shared in the benchmarking process should be shared with the stakeholders. The author describes the law enforcement stakeholders as starting from the police agency and then branching out to elected officials, citizens, employees, businesses, the justice system, and the city manager. By keeping these stakeholders involved, the author specifies that benchmarking would then be a "win-win" situation for everyone.

Quality Defined

It appears that police departments and law enforcement use the term Total Quality Management (TQM) to designate quality improvement activity. The term Total Quality Management is defined by the International Organization for Standardization (ISO) as "a management approach of an organization centered on quality, based on participation by all its members and aiming at long-term success through customer satisfaction and benefits to the members of the organization and to society" (Bensley, Wortman 1994, II-25).

From a public sector perspective, the Federal Quality Institute in the United States defines TQM as "a comprehensive customer-focused system … to improve the quality of products and services. It is a way of managing the organization at all levels, top management to front-line to achieve customer satisfaction by involving all employees and continuously improving the work processes of the organization" (Lewis 1991, 1).

Guidelines for Public Sector Quality Improvement

— Customer Satisfaction should be the primary goal and ultimate measure of service quality.

— Ensure the definition of "customer" includes both internal (employees in other departments); and, external dimensions (vendors, taxpayers, suppliers, service users etc.).

— Develop and communicate a common vision of the organization based on an extended view of the customer.

— Reward teamwork, encourage innovation, and work process improvement at all levels.

— Provide expanded training and self-improvement opportunities.

— Employee involvement at all levels is very important.

— Acknowledge and reward success at both individual and team levels.

— Eliminate fear in the work place and remove barriers to developing pride in service

    (empowerment).

— Make the necessary changes to successfully implement the preceding goals (Milakovich,

    1995).

Source: Robert W. Robertson and Paul Gill (ASQ, 2007).
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Appendices

Appendix A

Police Chief and Criminologist Contacts

1. Florida Department of Justice
   Bureau Chief and Assistant Bureau Chief
   John Chriswell and Eleese Davis
   (850) 921-6343

2. Michigan State University-School of Criminal Justice
   Director
   Edmond F. McGarrell, Ph.D
   (517) 355-2192

3. University of Minnesota –Duluth, Department of Sociology and Anthropology
   Professor of Criminology
   William A. Fleischman, Ph.D
   (218)726-7557

4. George Mason University
   Center for Justice, Leadership, and Management
   Stephen Mastrofski, Ph.D
   (703) 993-8313

5. Jacksonville Sheriff Department
   Jacksonville, FL
   Chief, CQI Division Head
   Justin Hill
   (904) 630-7847

6. Madison Police Department
   Madison, WI
   Police Chief
   Noble Wray
   (608) 266-4022

7. Los Angeles Police Department
   Los Angeles, CA
   Chief of Police
   William Bratton
   (213) 485-3202

8. New York Police Department
   New York, NY
   Deputy Commissioner for Strategic Initiatives
   Michael J. Farrell
   (646) 610-8534

9. Ames Police Department
   Ames, IA
   Manager of Support Services
   Chuck Cychosz
   (515) 239-5130

10. Tuscon Police Department
    Tuscon, AZ
    Chief of Staff
    George Rodriguez
    (520) 791-4852

11. Cheyenne Police Department
    Cheyenne, WY
    Deputy Chief
    Bill Stamford
    (307) 637-6521

Appendix B

Police Department and Criminologist Interview Question Topics

1. What type of CQI Projects do you have?   What was the CQI Project? What is the time frame?

2. What measures of services did you develop?

3. Who are the main supporters?

4. What are the main measures?

5. What process was improved?

6. Was there any resistance?

7. What other methods do you use?

8. Any unwanted outcomes?

9. What incentives in absence of Profit motive?

10. Any contacts that would supply additional information?

QI Self Assessment

PLEASE ANSWER THE FOLLOWING QUESTIONS BY CIRCLING YOUR RESPONSE.

1. Where do you think Public Health Agencies are in terms of Quality Improvement?
   a. NOT INTERESTED
   b. LEVEL 1
   c. LEVEL 2
   d. LEVEL 3
   e. DON'T KNOW

2. Where is your agency today?
   a. NOT INTERESTED
   b. LEVEL 1
   c. LEVEL 2
   d. LEVEL 3
   e. DON'T KNOW

3. Where do you want the agency in 1 year?
   a. NOT INTERESTED
   b. LEVEL 1
   c. LEVEL 2
   d. LEVEL 3
   e. DON'T KNOW

4. Where do you want your agency in 3 years?
   a. NOT INTERESTED
   b. LEVEL 1
   c. LEVEL 2
   d. LEVEL 3
   e. DON'T KNOW

5. If you want to move your agency to another generation, what are 3 things you need to do?

   1) _____
   2) _____
   3) _____

Thank you for your participation.