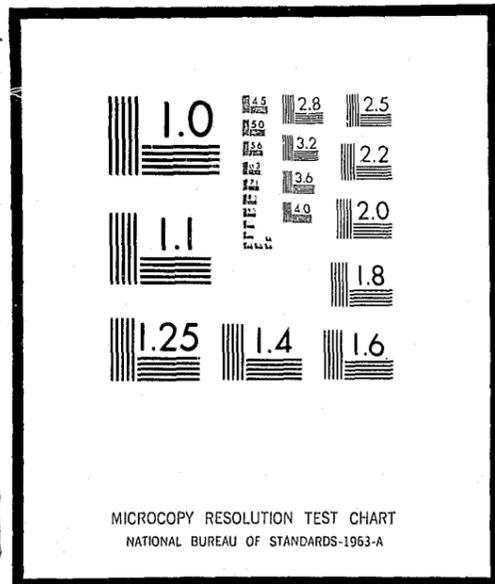


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NATIONAL CRIMINAL JUSTICE REFERENCE SERVICE
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LAW ENFORCEMENT ASSISTANCE ADMINISTRATION
POLICE TECHNICAL ASSISTANCE REPORT

SUBJECT: Suffolk County, ^(NY) ~~New York~~ Consolidation of Police Laboratory Services -

REPORT NUMBER: 76-44

FOR: Suffolk County, New York
 County Population: 1,300,000
 Police Strength: 3,000
 County Area: 1,000 square miles

NCJRS
JUL 23 1976
ACQUISITIONS

CONTRACTOR: Westinghouse Justice Institute
CONSULTANT: John P. Klosterman
CONTRACT NUMBER: J-LEAA-003-76
DATE: June 1976

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FOREWORD

This request for Technical Assistance was made by the County of Suffolk, New York. The requested assistance was concerned with studying the feasibility of merging the County's Police Department and the Medical Examiner's Laboratories.

Requesting Agency: Suffolk County Criminal Justice Coordinating Council, Mr. John Ligouri, Program Coordinator

State Planning Agency: New York State Division of Criminal Justice Services, Mr. John Bonner, Police Specialist

Approving Agency: LEAA Region II (New York), Mr. Jules Tesler, Administrator; Mr. Rene Cassagne, Police Specialist

1. INTRODUCTION

Suffolk County, New York, is basically a suburban residential county that encompasses approximately 1,000 square miles at the eastern end of Long Island. The County population is approximately 1.3 million; an additional 0.2 million people are summer residents.

For some time, Suffolk County officials have been considering consolidation of laboratory services within the County government. These ideas have ranged from total consolidation of all laboratory functions into one multi-purpose laboratory to combining the Medical Examiner's and Police Department Laboratories.

Certain problems that could result from consolidation were realized; and as a result, outside assistance was sought, particularly in regard to the criminal justice laboratory functions. The Consultant was requested to study the County's Medical Examiner's and Police Department Laboratories (hereafter referred to as the ME Lab and PD Lab, respectively) to determine the feasibility of merging them and to determine what effects a merger might have on their operation and the services they provide. Attendant personnel and budget problems were also to be considered.

Both laboratories serve the entire County. Within the County, there are 21 police agencies with approximately 3,000 personnel. The County Police Department serves over 90 percent of the population.

During the Consultant's onsite visit necessary to perform the requested technical assistance, the following persons were interviewed:

- Mr. John W. Ligouri, Program Coordinator, Criminal Justice Coordinating Council, Suffolk County Executive's Office.
- Dr. Leo A. Dal Cortivo, Chief Toxicologist, Suffolk County Medical Examiner's Office.
- D. Sgt. Richard Sperl, Deputy Director, Suffolk County Police Laboratory.

2. UNDERSTANDING OF THE PROBLEM

The basic problem to be addressed was "Is it feasible to combine the Medical Examiner's Laboratory and the County Police Department Laboratory?" However, this report goes beyond simply answering that question without changing the work plan. The stated question could be answered with a justifiable yes or no, but this would not provide the County officials with a sound base for their final decision. Therefore, the question will be answered and the answer justified; however, in addition, several problems that could arise will be pointed out so that steps may be taken to minimize these problems should they arise. Thus, the Consultant directed his attention toward the following:

- Is combining the ME Lab and PD Lab feasible?
- What would be the advantages of, and the problems encountered, as a result of such a combination?

In attempting to respond to the aforementioned questions, the Consultant had to consider both internal and external influences.

- Internal
 - Budget.
 - Personnel.
 - Equipment.
 - Space.
- External
 - Relationships with using agencies.
 - Relationships with the judicial system.

3. ANALYSIS OF THE PROBLEM

3.1 Method of Addressing the Problem

During this study, the Consultant was to determine the feasibility of combining the ME and PD Laboratories and not devise a detailed implementation plan. However, he felt it was necessary to explore the available methods of combination along with the possible results of each of these methods.

A study was made of each laboratory, which included its services, personnel, space, and equipment. Technical and administrative procedures and competence were not examined.

From this, an answer to the feasibility question was reached and a basic action plan was devised. Along with this, potential problems with such a plan were discussed.

3.2 Responsibilities

3.2.1 Medical Examiner's Laboratory

The major responsibility of the ME Lab is to provide analytical information to assist the medical examiner in determining cause of death. Additional responsibilities include the analysis of samples from comatose patients to determine the possible presence of poisons; and the analysis of samples, primarily urine, from individuals either on probation or methadone maintenance to determine possible drug misuse. The ME Lab currently also has certain responsibilities for the Public Health Lab because a fire destroyed that lab's facility.

3.2.2 Police Department Laboratory

The responsibilities of the PD Lab include the typical crime lab services: Analysis of dosage drug samples; examination, analysis, and evaluation of various types of physical evidence. Excluded are latent prints and polygraph.

4. FINDINGS AND CONCLUSIONS

4.1 General Observations

Because of the Consultant's limited time on site, no detailed evaluation of the lab's operations were made; however, the Consultant did make several general observations.

4.1.1 Management Information

Both the ME and PD Laboratories appeared to lack statistical information that accurately reflects the workload, not just the number of cases and items. Moreover, the lack of this information results in the inability to quantify changing work patterns that are not reflected in the above tabulations. For example, members of both laboratories mentioned an increasing complexity in the cases worked. This leads to a very significant increase in workload, but it is doubtful that the statistics now kept by either lab would reflect this.

4.1.2 Space

The PD Lab is crowded into a space not designed for a laboratory, which leads to inefficient use of space. It was noted, however, that the crowding in the PD Lab is not as severe as that of the ME Lab. The ME Lab is crowded to the point of causing an inefficient work situation.

4.1.3 Equipment

In the ME Lab, the primary problem with the equipment is its age and condition. Much of the equipment is in need of service and some items are in need of replacement. The replacement situation is such that a program must begin immediately or else within the next few years, much of the Lab's work could come to a standstill because of unusable equipment. The PD Lab has excellent basic equipment and for the most part it is in good condition.

Anticipated equipment needs are discussed in Section 5.

4.1.4 Training

The amount of outside training is minimal in both laboratories. A certain amount of training and professional contact through attendance at scientific meetings is just as important to proper functioning as any other operational item in the budget.

4.2 Observations on Merger Proposal

4.2.1 General

Based on what the Consultant learned during his onsite visit and since that time, there appears to be general agreement that a merger is imminent. Thus, the major remaining objectives are to be sure that the problems are not too great (feasibility) and, subsequently, to determine the method of merger considering the existing situations of the two laboratories.

4.2.2 New Laboratory

If no laboratory presently existed and scientific law enforcement services (i.e., typical criminalistics, toxicology, and related areas) were to be established for a county such as Suffolk, it would be most practical to establish one laboratory to provide these services. The facilities, equipment, and expertise required to perform these services have sufficient overlap that duplications would be avoided both in capital and operating expense.

With a few exceptions, the major equipment in a typical crime lab or toxicology lab is not in use 100 percent of the time. The number of exceptions depends largely upon the type and amount of the workload. Even where duplication of equipment is necessary, operating as one lab provides back-up in case of equipment breakdown.

The mission of both types of laboratories is basically similar. That is, the examination, analysis, and evaluation of evidential materials related to a criminal or potential criminal offense. Based on the above, the principle of a combined laboratory should be considered both practical and economical.

4.2.3 Existing Laboratories

Even though the theory of a combined laboratory has merit, other factors must be examined when considering existing laboratories to weigh the problems against the advantages. In addition, there are several alternatives for structuring such a merger. These must be studied to provide the most workable method.

All of the problems that might arise and/or their possible solutions were not identified in this study. Attempt has been made to identify the major potential problems so that steps might be taken to avoid or minimize them. Where appropriate, possible solutions have been indicated.

4.2.3.1 Advantages

Short-term advantages would be related mostly to space and capital investment in equipment. Only in the long term might savings be realized in the area of operating expense.

- Space -- Since space reallocations appear imminent, the time to decide upon a merger is short. In either a toxicology or a criminalistics laboratory, not all space is in use 100 percent of the time. However, certain areas are in use all of the time; some areas are so specialized that over-lapping usage is not practical. There is, however, sufficient cross-usage possible that a combined laboratory would require less space than two independent ones. Both the ME and PD Labs are currently crowded to the point that a combined operation would require more total space than is now used, but not as much as if both were to be expanded independently.
- Capital Equipment -- Needed capital investment in equipment would be reduced since certain items would not have to be duplicated. This would be particularly true of expensive major equipment. Certain items in the low to medium range (up to about \$15,000) are used extensively and would require duplication because of workload.
- Operational Costs -- Dollar savings in operating expense would be minimal, particularly in the early stages. Because of the trained and experienced personnel working in the PD Lab, immediate replacement with civilian personnel would be impractical. In addition, replacement of police personnel with civilians (even at lower salary ranges) might not result in a dollar savings to the County. Only if the Police Department were able to avoid increasing commissioned personnel by utilizing current laboratory personnel in other positions would there be an actual dollar savings to the County. Even if there were a dollar savings, an instant changeover would not be in the best interest of the services provided. There is a somewhat intangible confidence factor involved. The use of a crime lab (not the need for, but the actual use of) is determined largely by the investigator at the point of evidence collection. He must have confidence in the lab he uses or potentially useful evidence will be by-passed. A sudden turnover in personnel could seriously affect this confidence factor.

5.3 Specific Recommendations

5.3.1 Services

Services provided by the Forensic Laboratory could be divided into three sections: Criminalistics, Toxicology, and Pathology. The work areas that would be grouped under each of these are:

- Criminalistics
 - Serology.
 - Firearms.
 - Documents.
 - Trace evidence.
 - Alcohol testing.
- Toxicology
 - Drug analysis.
 - Blood, urine, etc. analysis.
 - Methadone testing.
 - Parole violation testing.
 - Poison control.
- Pathology
 - Hystology.

5.3.2 Administration

To be effective, the Forensic Laboratory would definitely have to be placed under a single department for administrative control and budgeting. This would require the reassignment of personnel (some on a special duty basis) and budget adjustments so that all operating expenses (other than some personnel costs) would be handled through one administrative department.

It is recommended that the Forensic Laboratory be under the administrative control of the Medical Examiner. There should be a laboratory director who would exercise administrative control over the laboratory.

Three section heads would be under him (i.e., Criminalistics, Toxicology, and Pathology). One of these section heads should also double as the assistant director. The clerical personnel should also be under the lab director. A centralized clerical service would be more efficient than one subdivided by section. Crossover of personnel within their capabilities to accommodate varying workloads, vacations, and so on, would be primarily the responsibility of the laboratory director.

5.3.3 Budget

To provide for an efficient and effective laboratory, it should be given a specific budget by the County legislative body. If this is not feasible, line items specified for the Forensic Laboratory within the host department's budget would accomplish the same purpose. Funds for police personnel assigned to the laboratory would remain a part of the Police Department's budget.

5.3.4 Personnel

- Current -- Initial Forensic Laboratory personnel should consist of those currently in the PD and ME Labs who provide the listed services. Police personnel would remain as commissioned personnel, but would be assigned to the Medical Examiner's office.
- Additional -- Any added personnel should become civilian employees of the Medical Examiner's office. As practical by attrition and budgeting, current police personnel should be replaced by civilian personnel. If existing classifications do not provide for competitive hiring and career development, consideration should be given to establishing a series adequate to encourage a stable work force.

5.3.5 Space

Specific space recommendations would require a detailed workload and staffing analysis, both on a current and projected basis. During the Consultant's onsite visit, it was noted that the PD Lab could use more and better designed space. It was also noted that the ME Lab is grossly overcrowded to the point of hampering efficiency. Therefore, a combined laboratory would require a larger space than the total now occupied by the separate labs and should include areas for evidence receiving and storage, as well as clerical work.

5.3.6 Equipment

Basically, the equipment in the PD Lab is in better condition than that in the ME Lab. An inventory of electronic equipment including a condition check was compiled for both laboratories. This inventory showed the need to recondition, replace, and add items.

- Reconditioning -- In the ME Lab, an immediate program to recondition the equipment must be undertaken. If not, the Lab's work will be seriously hampered by inoperative equipment.
- Replacement -- In general, electronic equipment has a useful life of from 5 to 15 years, depending upon the type of equipment and its amount of usage. After this time period, the equipment needs to be rebuilt, updated, or replaced. The option that is most practical depends upon the equipment's cost and the length of extended useful life.
- Additional -- The addition of two major items of equipment should be considered: One item would be x-ray dispersion equipment for elemental analysis, which should be evaluated against currently available equipment such as the emission spectrograph; the other item would be a gas chromatograph-mass spectrometer combination for organic analysis. The cost of these items would be dependent upon specific requirements and uses, but the basic cost of either item would be over \$50,000.
- Current -- The following equipment is currently contained in the ME and PD Labs. In addition, general recommendations regarding the needs of the new Forensic Laboratory are provided.
 - Ultraviolet Spectrophotometer -- The ME Lab has two: One is old but still an operable basic unit; the other is a more sophisticated unit, which is also old, but has excessive down time. The PD Lab also has two: One is an old, inoperable, sophisticated unit; the other is a relatively new basic unit. The Forensic Lab would immediately need to obtain a modern, sophisticated ultraviolet spectrophotometer. This, plus the two basic models on hand, should handle the workload for the next 5 years.
 - Infrared Spectrophotometer -- Both the ME and PD Labs have basic model IR's; the one in the PD Lab is relatively new. Other than accessories, current equipment should suffice for the next 5 years.
 - Spectrofluorometer -- The Forensic Lab would have three from the current ME and PD Labs; however, all of the units are over 8 years old. Therefore, a new unit would be needed within the next 5 years.

- Gas Chromatograph -- The Forensic Lab would have available five operable and three inoperable instruments. Other than accessories, the only requirement might be the acquisition inexpensive dedicated units for high volume work.
- Emission Spectrograph -- Both labs have similar units, but the one in the ME Lab is inoperable. By combining and reconditioning, one unit could suffice. The remaining components might have some trade-in value, possibly against the reconditioning.
- Atomic Absorption -- The one unit now in the ME Lab would suffice, although major accessories would make it more useful.
- Electrophoresis -- One unit is now in the PD Lab. The addition of accessories to enable use of cellulose acetate would greatly speed up the analysis for certain enzyme systems.
- EMIT -- The unit in the ME Lab apparently operates well and would need little, if any, improvement.
- CO-oximeter -- The unit presently available is about 9 years old, but it could be updated for less than the price of a new instrument.

5.4 Action Plan

- Merger Decision -- The first item must be to respond to the basic question of whether or not to merge the two laboratories. If the decision is made to go ahead with the merger, the exact services to be provided by the newly created lab must be decided upon. An early, firm decision is recommended highly since the current uncertainty creates a difficult situation for both laboratories.
- Establishment of a Budget -- If the decision is made to merge, the next step must be to determine how the laboratory is to be funded. There would appear to be a high probability that LEAA funds would be available to upgrade some of the equipment. LEAA should also be explored as a funding source for developing space, training, and reconditioning equipment. Adequate funding would be required on a continuing basis, especially in two currently neglected areas: Training and equipment maintenance.

- Selection of Space -- Concurrent with the budget establishment, adequate space must be provided and set up in a well-designed manner.
- Administrative Procedures -- For the Forensic Lab to operate truly as a single lab, a complete new set of administrative procedures (e.g., recordkeeping, reports, statistics) will be required. Included in this would be establishment of a chain of command, administrative structure, and related matters.
- Actual Physical Combination -- The actual combining of the ME and PD Labs should take place upon moving into new quarters. Prior to this, the equipment reconditioning should be started and the new administrative procedures established.

5.5 Summary

The Consultant believes that a merger of the ME and PD Laboratories is not only feasible, but desirable and in the best interest of scientific service to law enforcement in Suffolk County. That is not to say that a merger will be without problems; however, with careful planning and open discussion, these problems should not cause disruption. The merger must be accomplished in such a way that a true single laboratory results rather than a mere combination of the two existing labs, or the merger of one into the other. It is doubtful that there will be any monetary saving, other than in capital equipment; but in the long term, the operation should be more efficient and provide better service than is presently available.

END

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