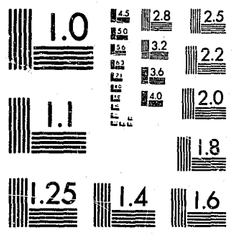

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MEASURING PRISON RESULTS:

WAYS TO MONITOR AND EVALUATE CORRECTIONS PERFORMANCE

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The Urban Institute

FINAL REPORT
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EXECUTIVE SUMMARY

IMPORTANCE

In corrections, as in many other government activities, data on outcomes are scarce. This manual represents an effort to increase their availability by presenting a meaningful and feasible set of procedures that corrections departments can use to assess how well they accomplish major goals. These procedures can be used to monitor and evaluate the effectiveness of state prison and parole services. Correctional administrators and managers as well as state officials in the governor's office, state budget office, and legislature can use the information provided by these measures in several ways:

- To assess the progress correctional services are making in meeting a variety of goals, including holding inmates securely and humanely, and reducing subsequent criminal activity;
- To help determine priorities in resource allocation and justify the needs for resources or activities;
- To motivate staff to find ways to improve performance by providing regular feedback on their accomplishments;
- To identify particular problem areas for in-depth study to determine alternate solutions and their costs;
- To increase the accountability of government services to the public and to elected officials.

CORRECTIONS GOALS AND CRITERIA FOR SELECTING PROCEDURES

The procedures address three major goals of activity:

- Security;
- Humane treatment;
- Post-release success of offenders.

With the participation of two state departments of corrections (North Carolina and Minnesota), the Urban Institute developed and tested measurement techniques to meet the following criteria:

- They should measure outcomes, not processes;
- The outcomes measured should be important to corrections managers;
- The data required for the measures should be relatively easy and inexpensive to collect (relying, where possible, on data already inexistence);
- Results should be relatively easy to interpret and useful for making management decisions.

RESULTS

Exhibit 1 lists fifteen measures. These measures are suggested for regular monitoring. They can provide much improved information on the outcomes of prison activities, although they are not intended to be the final word on measurement. Some of these measures have major limitations; yet the information these or similar measures can yield is important for making informed decisions.

As summarized in Exhibit 1, this manual describes procedures for measuring outcomes in fifteen basic measurement areas. These measures indicate the outcomes of corrections activities. By themselves, they do not identify specific steps to improve unsatisfactory conditions. When outcome data indicate problems, managers will then need to develop plans for corrective actions. Measurement during subsequent time periods can provide feedback about the effectiveness of improvement efforts.

EXHIBIT ES-1

Goal	Performance Area	Recommended Measures	Recommended Additional Measures (if resources permit)
Security	Escape Frequency	1. Escapes / Average population	
		2a. Escapees returning with new charges / All escapees	2b. Escapees with high base expectancy scores / All escapees
Humane Treatment - Life and Safety	Victimization	3a. Victimizations / Average population	
		3b. Inmates victimized / Average population	
		3c. Proportion of inmates who feel safe in their property and person	
	Prison Atmosphere	4a. Dissatisfied inmates / All inmates	
		4b. Correctional Institution Environment Scale	5c. Average population / Standard capacity
	Overcrowding	5a. Inmate days spent in overcrowded conditions / Total number of inmate days	5d. Program beds / Total beds
		5b. Inmates in single cells / Average population	5e. Inmates reporting feelings of overcrowding / All inmates
	Safety	6a. OSHA injuries per 100 inmates	6c. All injuries per 100 inmates
		6b. OSHA work-loss days per 100 inmates	6d. All work-loss time per 100 inmates
	Sanitation	7a. Cleanliness deficiencies / All possible deficiencies	
		7b. Serious health hazards / Possible hazards	
	Fire Safety	8a. Fire-related deficiencies / All possible fire deficiencies	8c. Property damage per fire
		8b. Number of fires	8d. Injuries due to fire
Humane Treatment - Health	Physical Health Status	9a. Hospitalizations per 100 inmates	9d. Percent of inmates with improvement or worsening in index of screening factors
			9e. Percent of inmates with improvement or worsening of body system abnormalities
		9b. Sick days per inmate per year	
		9c. Natural deaths per 1000 inmates	
	Mental Health Status	10a. Number of suicides	
		10b. Proportion of inmates requesting medications for relief of mental distress	
		10c. Percent of inmates with symptoms of mental distress	

EXHIBIT ES-1
(Continued)

Goal	Performance Area	Recommended Measures	Recommended Additional Measures
Humane Treatment - Programs & Services	Basic Skills	11a. G.E.D.'s earned / G.E.D. exams taken	
		11b. Percent showing improvement on WRAT per month of schooling	
	Vocational Skills	12. Vocational certificates earned / Enrollment in vocational programs	
	Medical and Mental Health Services	13a. Percent of intake conditions receiving the same diagnosis from corrections M.D.'s and outside evaluator M.D.'s	
		13b. Conditions referred for treatment by corrections M.D.'s / Conditions referred for treatment by outside evaluator M.D.'s	
		13c. Percent of conditions treated in accord with "best current practice"	
Post Release Success	Employment	14a. Proportion with $X earnings	
		14b. Proportion stably employed	
	Recidivism	15a. Reincarcerated releases / All releases	15b. Rearrested releases / All releases
			15c. Reconvicted releases / All releases

1. MEASURES OF SECURITY (Measures 1-2b, Chapter 2)

These include escape rates (Measure 1) and escape seriousness (Measures 2a and 2b). Although individual escape incidents are usually recorded, they are seldom tallied and divided by the average prison population for each security level or facility. Computing an escape rate facilitates comparisons over time and among facilities. Most systems do not currently assess escape seriousness at all. "Seriousness" refers to the probability that the escapee will engage in further criminal activity while at large.

2. HUMANE TREATMENT: Measures of Living Conditions and Safety (Measures 3a-8d, Chapter 3)

The goal of Humane Treatment of inmates has such broad scope that we divided it into three topics: Living Conditions and Safety; Inmate Health; and Programs and Services. Here we describe the measures concerned with living conditions and safety.

Court rulings and a growing concern that civil rights entitle inmates to a reasonable degree of humane treatment have given added importance to this area. Currently there is virtually no regular reporting of information on humane treatment.

A brutal living environment can adversely affect rehabilitation efforts and strain security resources, in addition to being undesirable in and of itself. Corrections departments try to protect inmates from assaults and other predatory acts. Measures 3a, 3b, and 3c, which assess the amount of inmate victimization (assaults, strongarming, forced sex) and fear of victimization occuring in facilities, individual cell blocks, or dorms, should help corrections officials assess the extent of the problem and identify where to focus their efforts to control victimization within prisons.

Measuring prison atmosphere is a way to take the "temperature" of an institution. Prison atmosphere (Measures 4a and 4b) include inmate perceptions of safety and tension and satisfaction with programs and services. These measures provide information on the feelings and apprehensions of institutional residents that have the potential to fester and erupt into serious prison violence. Feelings of inmates may differ from more "objective" measures of conditions. A measure of inmate perceptions of prison atmosphere may give prison officials new insights into levels of unrest and potential trouble.

Overcrowding is nationally recognized as a major problem for correctional facilities. Overcrowding exacerbates many other prison problems such as inmate health, the need for privacy, and the probability of assaults. Overcrowding (Measures 5a-e) has both an objective and a subjective aspect. Recent research indicates that spatial arrangements that allow a sense of privacy contribute as much as actual amount of space to reducing inmate perceptions of overcrowding and its negative side effects (e.g., excessive use of sick call, suicide attempts, assaults). Prison officials need reliable estimates of both objective and perceived overcrowding in order to plan for future space needs and to justify requests for the resources to meet those needs.

Prisons should provide physically safe surroundings for inmates. Inmates should not be exposed to unusual risk of injury or accident simply because they are confined. Corrections managers can monitor the frequency and seriousness of injuries and accidents in prison (Measures 6a-d) and use the information to target activities or facilities that need improvement.

Two other aspects of prison physical surroundings warranting regular measurement are sanitation and fire risk and consequences (Measures 7a, 7b, 8a-d). Both state health departments and state fire marshals have standards for fire safety and sanitation of residential facilities. Application of these standards to correctional institutions has been accepted by the Commission on Accreditation, and prisons seeking accreditation will have to demonstrate compliance. Both sanitation and fire risk in prison can be compared to data available for non-prison settings.

3. HUMANE TREATMENT: Measures of Inmate Health (Measures 9a-10c, Chapter 4)

Recent court decisions regarding the living conditions in the nation's prisons have upheld the principle that prisons should strive to do as little damage as possible to prisoners. Significant deviations from humane standards of care have been ruled to constitute cruel and unusual punishment, and thereby to violate prisoners' constitutional rights. In addition to overcrowding and unsanitary conditions, the availability of adequate medical and mental health care for prisoners has been a major focus of these court decisions and of consent decrees between plaintiffs and corrections departments growing out of class action suits by prisoners. Measures 9a-e and 10a-c summarize the effects of incarceration on inmate health. A corrections department would strive to limit or eliminate changes for the worse on all such measures.

4. HUMANE TREATMENTS: Measures of Programs and Services (Measures 11a-13c, Chapter 5)

Because corrections departments have legal obligations to provide some services (e.g., education for juveniles), and the moral and increasingly legal, obligation to provide some services that simply seem good in themselves (such as increased literacy or medical care), we include measures of results from three types of programs and services. These are: (1) programs that attempt to provide inmates with improved basic skills such as literacy and practical arithmetic through school programs (Measures 11a and 11b); (2) programs that attempt to provide inmates with improved work-related skills and abilities (Measure 12); (3) services that try to maintain inmates' physical and mental health (Measures 13a-c). The focus of these measures is on assessing achievements of the program's or service's primary goals rather than how they went about doing the job. However, measures in this area summarize "intermediate" effects of programs and services rather than the long-range outcomes of these services for inmates or the community.

5. MEASURES OF POST-RELEASE SUCCESS (Measures 14a-15c, Chapter 6)

The final major goal area measured is post-release success--employment success (Measures 14a and 14b) and avoidance of new criminal activity (Measures 15a-15c). We developed new techniques for identifying post-release employment success using data from state departments of revenue and employment security. We tested procedures for using an Offender-Based Tracking System (OBTS) to gather rearrest and reconviction data. OBTS data are not presently available in most states and are somewhat costly to use, but they do supply information about renewed criminal activity that does not result in incarceration. Although some believe that corrections agencies have no responsibility for what inmates do after release, the public and legislative bodies still retain sufficient interest in these consequences of incarceration that no general-purpose array of outcome measures would be complete without them.

UNIQUE ASPECTS OF THESE MEASURES

Among the measures we identified and tested, several new procedures deserve particular attention from corrections departments.

1. Annual inmate survey (used to collect data for Measures 3a, 3b, 3c, 4a, 4b, 5e, and 10c). Some information revealing of inmate experiences of prison life can meaningfully come only from inmates themselves. Inmate victimization by other inmates is often seriously underreported in official records such as prison disciplinary reports. We tested procedures designed to protect inmate identities but still get self-report information on the extent of inmate victimization (assaults, strongarming, and forced sex). Symptoms of mental distress, perceptions of prison atmosphere, sense of fear for one's person or property, and feelings of overcrowding are essentially subjective experiences, and therefore must come from inmates themselves. The procedures and survey questions suggested in Chapters 3 and 4 and Appendix A will help corrections departments identify problems with these aspects of prison life.

2. Post-release employment success (Measures 14a and 14b). We tested a procedure that uses data from unemployment insurance records and state tax records, in cooperation with state revenue and employment security agencies. These tests indicate the procedures are feasible and supply important information about inmates' post-release performance previously unavailable without great effort and expense. Chapter 6 describes these measures. These sources make it possible for corrections departments to get employment and earnings information about releasees without needing to conduct follow-up interviews or

relying on parole records. The procedure works equally well to discover earnings for the most recent year for inmates released on parole or unconditionally, and for inmates released recently or several years ago. The procedure requires social security numbers for all inmates on whom you want post-release information. It also requires each corrections department to negotiate specific arrangements with the appropriate state agencies for revenue or employment security. Information from one source will suffice if appropriate data are not available from either a revenue or an employment security agency.

3. Identification of comparison data from non-prison sources. Some measures of accidents and injuries (6a and 6b), sanitation (7a and 7b), and health status (9a, 9b and 9c) lend themselves to comparison with non-prison data. For example, indicators of the number of sick days experienced by non-incarcerated individuals are readily available on a national basis, by age-sex group. Accident rates in private sector industries are also available annually, and can be compared to equivalent prison work-related accident rates. By comparing corrections performance to these outside data sources, corrections officials can assess whether prisoners experience significantly more or less negative circumstances than people with similar characteristics experience outside of prison.

DATA COLLECTION PROCEDURES

Six types of data-collection procedures or sources are needed for the set of measures:

- records typically kept by corrections agencies (sometimes these data are computerized, and sometimes not);
- inmate survey results from random samples of inmates;
- reports of health or fire inspections of corrections facilities;
- physical examinations of samples of inmates;
- educational testing and certification of vocational training achievements;
- records of other state departments such as revenue or employment security agencies.

COST/STAFF TIME REQUIREMENTS

To better fit the varying needs of corrections departments, we have grouped the measures into three measurement packages:

- The Basic Package

  The basic package provides tallies and rates for many corrections activities but obtains no information directly from inmates via an inmate survey, nor does it include medical examinations or explorations of inmates' mental health problems.

- The Survey Package

  The survey package augments the basic package with victimization, prison atmosphere, and mental distress information directly from inmates. The survey procedures also provide the option of gathering follow-up information on inmates' physical health after some length of prison residence.

- The Comprehensive Package

  The comprehensive package covers the same material as the basic package and supplemental survey, but adds more sophisticated measures of overcrowding, accidents, fire losses and recidivism. It also includes procedures for assessing the adequacy of prison medical services.

Considering the significant time commitment a full-scale performance measurement system would require, a corrections agency might decide to begin with the basic package and gradually work up to the more extensive options.

Chapter 7 presents these three measurement packages in detail. Annual costs of the procedures for a small corrections system (about 2,000 inmates) for the basic package run four to five months of staff time. A large system (about 15,000 inmates) might need as much as two to two and a half staff years for the basic package. The survey package would cost an additional four to five months for a small system and five to six months for a large system. The comprehensive performance measurement package might cost a small corrections system between three and four years of staff time and a large system between four and six years of staff time. Exhibit ES-2 summarizes these cost estimates.

IMPLEMENTATION

Implementation of these measurement procedures involves:

- Deciding which measures and which particular forms of the measures are most appropriate (this report identifies some possible forms with pros and cons of each);
- Assessing the adequacy of current information;
- Establishing new data-collection and reporting procedures or modifying existing ones;
- Developing or modifying analysis and data-processing procedures and specifying output formats;
- Reviewing procedures with prison and parole officials and obtaining approval for changes.

The amount of effort and time required for implementation can vary greatly according to the number of measures to be implemented, the number of similar data-collection procedures that already exist, the ease with which data in current records can be extracted, the size of the system, the number

EXHIBIT ES-2

SUMMARY OF COSTS FOR PERFORMANCE MEASUREMENT SYSTEMS IN SMALL AND LARGE CORRECTIONS AGENCIES

COMPONENT OF THE MEASUREMENT SYSTEM	COST FOR A 500-BED FACILITY	COST FOR A SMALL SYSTEM[1]	COST FOR A LARGE SYSTEM[1]
START-UP ACTIVITIES	---	12 - 25 months	12 - 15 months
BASIC PACKAGE	1.5 - 2 months	4 - 5 months	2 - 2.5 years[2]
SURVEY (Additional cost beyond the basic package):			
WITHOUT MEASURES 9d and 9e	1.5 - 2 months[3]	4 - 5 months[4]	5 - 6 months[4]
WITH MEASURES 9d and 9e	4.5 - 5.5 months[3]	11 - 13 months[4]	12 - 15 months[4]
COMPREHENSIVE PACKAGE (Additional cost beyond basic and survey packages):			
WITHOUT MEASURES 13a, 13b, and 13c	1 - 2 months	2 - 4 months	4 - 6 months
WITH MEASURES 13a, 13b, and 13c	3 - 4 months and $12,500 - $15,000[3]	7 - 9 months and $30,000 - $40,000[4]	8 - 10 months and $30,000 - $40,000[4]
TOTAL COST (BASIC, SURVEY, AND COMPREHENSIVE)			
WITH NO MEDICAL EXAMINATIONS	4 - 6 months	22 - 31 months	45 - 57 months
WITH ALL PROPOSED MEDICAL EXAMINATIONS	9 - 12 months and $12,500 - $15,000[3]	34 - 42 months and $30,000 - $40,000[4]	56 - 70 months and $30,000 - $40,000[4]

1. The estimate for a small system assumes approximately 2000 inmates and 7 facilities, and is based on our data gathering experiences in Minnesota. The estimate for a large system assumes approximately 15,000 inmates and 50 facilities, and is based on our tests of procedures in North Carolina. We have allowed for economies of scale in making these estimates. Therefore, costs for whole systems are lower than would be expected if one just multiplied the per-facility cost by the number of facilities in the system.

2. Two of these staff years are distributed among many staff in each facility.

3. Based on a sample size of 125.

4. Based on a sample size of 300. The higher costs for the large system stem from more time needed for coordination of all participants. Sample sizes usually do not increase proportionately to increases in the population to be surveyed.

of facilities for which individual data are desired, and the willingness and interest of corrections officials at all levels to gather and report data on individual incidents and offenders.

At a minimum, start-up activities of a performance measurement system will require approximately 12 to 15 months of mostly managerial staff time. This covers establishing a work group of managers to select measures and deciding about preferred levels of precision, frequency of reporting, desirable analyses, timing to coincide with budget defense and other department needs, and similar decisions. It also includes the time a coordinator will spend translating work group decisions into actuality. This start-up expense is included in the estimates of Exhibit ES-2.

Corrections managers currently make decisions about their programs and policies with little information about what these programs and policies accomplish. The procedures presented in this manual can provide corrections managers with regular information that begins to fill this gap. However, good information requires time and effort to obtain. No one yet knows how useful performance information about corrections outcomes will be, yet without it managers will continue to make decisions by the seat of their pants. As resources shrink and demands on correctional services grow, much depends on careful decision-making about where scarce resources will do most good. Performance measurement can help.

CHAPTER ONE

INTRODUCTION: HOW TO GET THE MOST OUT OF A PERFORMANCE FEEDBACK SYSTEM

Corrections departments have traditionally used data in two major ways - to justify their existence to state legislatures at budget time, and to keep track of inmates. A third use, to document levels of accomplishment and provide feedback for performance improvement, has been neglected. Yet, now of all times corrections departments need to use information in this third way, because without performance improvement, they cannot hope to meet growing demands for delivery and still hold the line on budgets.

This manual presents a set of procedures designed to measure important areas of correctional performance on a regular basis. If used annually or more frequently they can provide corrections managers with feedback on past efforts to improve performance and a mechanism to help target performance problems. Managers could then decide where to invest scarce resources to produce the best results.

The usual role to data in corrections has been to keep track of inmates and justify the annual budget request. Data for the latter purpose almost always couple the head counts used for tracking inmates with financial information. They say, in essence, "So many people went through our system, and it cost us so much a person to handle them. Next year we expect 10% more people, so give us 10% more money." Rarely have correctional systems specified their goals in terms of outcomes (e.g., levels of cleanliness maintained, keeping the accident rate in prison industries below equivalent private sector rates, maintaining inmate health at the

same level it would have been on the outside).

The measures presented in this manual differ from past practice because they focus on outcomes. An "outcome" as used here denotes the achievement or end result which corrections activity tries to accomplish. The measures presented in this manual do not look at corrections activities. They do not summarize the number of meals served or the number of shakedowns per year. Instead, they summarize results, such as levels of cleanliness maintained, reduction in safety failures, or reduced overcrowding. To use these measures, corrections managers will need to specify goals clearly. The measures can then let managers know how well they have achieved the goals they set.

DEVELOPING OUTCOME MEASURES

In corrections, as in many other government activities, data on outcomes are scarce. This manual represents an effort to increase their availability by presenting a meaningful and feasible set of measures that corrections departments can use to assess how well they accomplish major goals. With the participation of two state departments of correction (North Carolina and Minnesota), the Urban Institute developed and tested measurement techniques to meet the following criteria:

- They should measure outcomes, not processes;
- The outcomes measured should be important to corrections managers;
- The data required for the measures should be relatively easy and inexpensive to collect (relying, where possible, on data already in existence);
- Results should be relatively easy to interpret and useful for making management decisions.

To select important correctional goals and pinpoint specific aspects of those goals for performance measurement, we relied on earlier work

(Blair, et al, 1979), consultations with our two participating states, and the advice of members of our Advisory Group. Three major goal areas were selected: security, humane treatment, and post-release success. Within each goal area we identified specific outcomes important to corrections agencies. Exhibit ES-1 lists the goal areas, outcomes within each goal area, and recommended measures of outcomes. It also includes alternative measures which often cost more than the recommended measures but compensate for their expense by providing important outcome information.

Beginning in September, 1978, project staff and personnel from participating corrections departments reviewed corrections goals and selected a set of important goals to measure, assessed the availability of data to measure these goals, determined what new data or data collection procedures to develop, and decided which measures to putsue. We then tested each procedure by collecting and analyzing the necessary data in one or both test states. These tests led us to discard some measures and modify others. We base all estimates of data availability, data quality, and the cost of collecting data for each measure on the experience accumulated during these tests. These estimates appear in Chapters 2 through 6 in conjunction with each measure.

ORGANIZATION OF THIS MANUAL

The remainder of this chapter discusses how to make the measures and procedures presented in this manual work best for your corrections department. It discusses how to use data to analyze performance problems, how to compare your own agency to other corrections departments or to non-correctional data sources, how to track performance over time, and how to assess the effects of changes instituted within your agency.

Chapters 2 through 6 present the measurement procedures: Chapter 2 discusses security measures; Chapter 3 describes measures of living conditions and safety; Chapter 4 describes inmate health and mental health measures; Chapter 5 covers measures of prison programs and services; Chapter 6 presents measures of post-release success.

- Discussion of each measure is organized into the following headings:
- Description
- Potential data sources
- Using these measures (including sample data displays)
- Data cost and quality
- Alternative measures, and circumstances under which alternatives might be preferred

Chapter 7 presents cost estimates for three outcome monitoring systems: a basic package of measures, a package including an inmate survey, and a comprehensive package. With the information on individual measures presented in Chapters 2 through 6, corrections departments can construct a package of measures to fit their institutional needs, and can put a reasonably accurate price on it.

GETTING THE MOST FROM PERFORMANCE FEEDBACK

Corrections departments have long operated on the "fire-extinguishing" principle of management. If nothing's going wrong right now, things are all right. This may have been satisfactory when no one was looking, no standards loomed on the hoirzon, no inmates sued, no courts intervened, and budgets, if not lavish, at least held their own in real dollars. But increasingly corrections departments face too many conflicting demands on their resources to run this way, nor do they have to. Performance

information can increase accountability, help pinpoint performance problems, and underpin effective management. Feedback will rarely tell you that everything is perfect, but it does raise questions, encourage people to explain the patterns revealed in the data, and stimulate conscious decisions about what needs improvement. In this chapter we describe how to set up a performance feedback system, discuss comparisons to make with the data, and demonstrate ways to stimulate performance improvements.

STRUCTURING A PERFORMANCE FEEDBACK SYSTEM

To make a performance feedback system work effectively, corrections management concerned with operations will have to support it. This support involves several activities, ranging from goal-setting through demonstrating a willingness to correct performance problems revealed by feedback.

We recommend the following steps to establish a performance feedback system:

1. Select goals and select the specific measures you will use to assess performance.

Set up a working group of program managers, facility superintendents, and data resources personnel to decide the specific characteristics of a performance feedback system that will fit your department's needs.

Performance measurement requires clear goals, because performance only has meaning when measured against a concrete, well-conceptualized idea of where you want to get to. Corrections departments have multiple goals, making clarity even more important than it would be in simpler systems. Because corrections goals have no automatic compatibility and each, if pursued singlemindedly, could usurp most correctional resources,

the working group will need to set priorities which reconcile these goals in an overall plan. The process of setting goals is too elaborate for treatment as part of this manual. The interested reader might consult any of several basic treatments of goal analysis and goal-setting.*

Once the working group has decided which corrections goals to measure, it should turn its attention to selecting measurement procedures. This manual offers many procedures that a corrections department can use or adapt to its own situation. In picking measurement procedures, the group will probably want to consider what data are currently available, what data would be easy to collect if the department does not already have them, and what data would provide the most meaningful feedback to corrections personnel.

2. Designate a coordinator.

After the working group has designated important goals and selected a set of performance measures, some single person needs to be appointed as coordinator. This person will need the authority to develop and supervise the actual data collection effort in each facility under corrections jurisdiction and oversee data analysis and interpretation. The coordinator should translate the working group's decisions into a feasible system of data collection. This involves:

(a) deciding which personnel will record data in each facility;

(b) developing any necessary data reporting forms;

(c) establishing a reporting schedule;

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* See, for example, (1) Gilbert, Thomas, Human Competence: Engineering Worthy Performance, New York: McGraw-Hill, 1978; (2) Mager, Robert F., Goal Analysis, Belmont, California: Fearon Publishers, 1972; or (3) Reddin, W.J., Effective Management by Objectives, New York: McGraw-Hill, 1971.

(d) introducing the data collection procedures to the people who will do the work:

(e) explaining how to do the job, why this data collection effort is important, and how it will be used.

Once data have been collected, the coordinator should set up a routine for analyzing it and developing displays for corrections managers. Because the coordinator's job concentrates so heavily on data collection and analysis, someone from your research, planning, or data services section will probably be the logical choice for coordinator.

3. Try out the procedures.

It may be wise to make a small-scale trial of the measurement procedures before committing the whole department to an extensive effort. If this seems desirable, pick one or two facilities, set up the procedures developed during the planning effort, and let them run for six months or a year. Many small problems of data availability, level of effort, finding the right people to do the job, and potential misunderstandings will probably surface during the trial period. The coordinator will be able to resolve these problems and fine-tune the procedures before instituting them department-wide.

A trial period also provides the opportunity to look at some outcome data. When faced with actual performance feedback, managers often realize they need some additional information to interpret results meaningfully. Thorough discussion of performance feedback from the trial period will probably bring out some unanticipated data needs. For example, staff may have recorded the number of accidents in prison industries but neglected to write down the shop or program in which they occurred. When managers

look at the overall data they may realize they cannot pinpoint specific areas of safety failure without shop-by-shop information. The coordinator would then need to modify the relevant data collection form to include a space for recording where the accident happened.

4. Establish routine feedback procedures.

Corrections managers should use their performance feedback system to look for performance differences, analyze why they occur, and encourage adoption of more successful practices by less successful performers. After gathering performance data, managers should examine it to determine whether performance is adequate or needs improvement.

Corrections officials can take several steps to make performance differences work to improve overall productivity. First, identify high and low performing individuals, teams, crews, industrial shops, minimum security facilities, or whatever unit is relevant to the goal on which you want to improve performance. Second, assess whether the difference between the best performance and the average is great enough to suggest that substantial improvements in performance can be achieved. Third, study what the good performer does, and how that differs from the average performance. Finally, help the average performers adopt the methods which help your "star" achieve success. Not every area of performance will reveal differences great enough to worry about, but some certainly will. If escape rates are two or three times as high in some facilities as they are in others with similar populations, perimeter security arrangements, programs, and so forth, somebody, somewhere, can surely do better than they are doing. But, these differences often do not become apparent until managers deliberately look for them. Without an active managerial push for improved per-

formance, most corrections departments won't find the areas with the greatest opportunity for improvement. Therefore, departments will miss their greatest chances for increasing productivity.

Comparisons and Standards

No absolute standards of excellent performance exist for most of the measures we recommend in Exhibit ES-1. Managers should use their collective experience to set some performance standards. For example, if external security is the goal, managers may set five escapes per 100 inmates per year from minimum security facilities as "outstanding performance;" ten escapes per 100 per year might be "acceptable," but more would cause concern. When conditions of performance clearly vary, as they do between minimum and maximum security facilities with respect to controlling escapes, the standard can be set at different levels. But the measure remains the same because the purpose and the outcome remain the same.

Managers can also establish meaningful criteria for their own systems by using performance data to make several kinds of comparisons. These are:

(a) Changes in performance over time, for single facilities or the whole system;

(b) Differences in performance between similar corrections facilities or programs;

(c) Differences in performance between corrections and non-corrections settings.

Changes over time. Year-to-year tracking of performance within a single facility or department provides important feedback. Changes for the worse can signal performance problems; changes for the better can document the effects of new program or staffing improvements, and help

managers decide whether to continue or expand these practices. With year-to-year comparisons of a facility's performance, the issue of whether a comparison is "fair" seldom arises. The "standard" becomes "doing better than last year." Exhibit 2-2, which gives escape rates for several facilities over a five-year period, shows how to display year-to-year comparisons for single facilities. It also demonstrates a comparison of one facility to another facility over time. Many other examples of over-time comparisons occur throughout this manual. The performance measurement system coordinator should decide with managers which measures need comparisons over time. The coordinator should then develop data displays that show managers what changes have occurred.

Cross-facility comparisons. Managers will also want to compare the performances of different facilities with similar inmate populations and prison conditions. For instance, they might want to see whether one facility housing youthful offenders has a lower inmate victimization rate than another facility with youthful offenders, or whether several minimum security "road camp" facilities maintain similar levels of sanitation and fire safety. Examples of cross-facility comparisons accompany most of the measurement procedures described in this manual (see, e.g., Exhibit 2-1 for escape rates across facilities, Exhibit 3-6 for sanitation deficiencies, or Exhibit 6-7 for recidivism).

When one facility stands out as a high performer, managers can use this facility as a standard-setter. Alternatively, they could use the "average" performance to encourage below-average facilities to come up to average. We recommend using the best performer as the standard, since it makes most sense to try for the best. But if that standard seems far

beyond the reach of most facilities, using the average performance as a target may be less discouraging to low-performing facility managers.

Comparisons by facility type or program type comprise important variations on cross-facility comparisons. A manager might want to know whether the security level of a facility makes a difference to some type of performance, in order to establish different standards if necessary. Exhibit 3-1 (inmate assaults) illustrates this type of comparison. Exhibit 6-6 shows yet another way to analyze performance data -- by program type. Exhibit 6-6 shows the post-release employment success rates of people who completed vocational certificates in prison versus those who did not.

The comparisons just described will give managers a basic overview of performance throughout the corrections system. After looking at these data, managers may want to look more closely at performance areas where they can see performance problems. More detailed analyses of the basic data can give a more precise picture of some factors affecting performance. We demonstrate one such detailed analysis plan in our discussion of escape rates (Measure 1).

The work group and the coordinator should discuss which comparisons have most importance for their own system. The coordinator should then develop analysis procedures and display formats to provide these comparisons, always incorporating relevant standards when managers have identified them.

Comparisons to non-corrections data. In some instances, particularly in the humane treatment area, we suggest comparisons to non-corrections standards. More and more frequently, the courts have interpreted the corrections function as depriving criminals of their liberty only, not of their rights to medical care, decent living conditions, a safe environment,

adequate diet, or mental health services. We do not yet know how much reduced physical and mental health automatically accompanies deprivation of liberty; quite possibly some reduction is inevitable. Since appropriate non-corrections data exist for many of these corrections goal areas, we recommend that managers use these data to assess how well corrections departments attain their humane treatment goals in comparison to non-prison settings. Exhibits 3-3 and 3-4 show corrections performance compared to private sector performance for work-place accidents and injuries. Exhibits 4-1, 4-2 and 4-3 illustrate the kinds of comparisons possible between data on inmate health and health statistics for the non-incarcerated population. Managers should be able to explain differences in prison and non-prison performance to their own satisfaction and that of top corrections officials.

Managing with Performance Feedback

The ultimate test of a performance feedback system lies in its ability to stimulate improved performance. With the support of top corrections officials, the coordinator should establish regular times to meet with facility superintendents, program managers, and top department administrators to review past achievements and set new performance targets. To this end, the coordinator should develop some ways to summarize facility performance across measures, as well as using displays for individual measures. For instance, top managers may want to see at a glance whether a facility or program has met last year's performance targets in a number of goal areas. Exhibit 1-1 gives one possible format for summarizing this information. For Exhibit 1-1, the coordinator lists all the performance areas for review in the column at the far left. The next two columns give performance levels for the previous year and this year. The fourth

EXHIBIT 1-1

PERFORMANCE SUMMARY FOR FACILITY A[1]

Measure	Facility A		System Average	Best Performance
	Last Year	This Year		
escape rate	10/100 inmates	7/100 inmates	8/100 inmates	6/100 inmates
victimization rate	7% of inmates involved	15% of inmates involved	12% of inmates involved	3% of inmates involved
work days lost due to injury	2/100 inmates	2/100 inmates	4/100 inmates	2/100 inmates
overcrowding	120%	120%	140%	97%
recidivism	17% within 12 months	15% within 12 months	21% within 12 months	9% within 12 months

[1]Hypothetical data

column compares this facility's performance to that of the average performance for the whole system, and the last column compares this facility's performance to the best facility in the system on each goal. The hypothetical data in Exhibit 1-1 show that Facility A improved its escape rate and now does better than the system average, but still trails the best performance in the system. Facility A shows a doubling in its inmate victimization rate, which should alert managers to a serious problem that needs attention. The facility is the best performer in the system on work-loss days, and better than average but not the best on over-crowding and recidivism. Other facility managers should look to Facility A for techniques to reduce injuries and accidents, but Facility A's manager should seek out the best performer's advice on reducing victimization. The administrator reviewing the performance of Facility A with its warden should discuss past successes, explore ways to reduce existing problems, and establish performance targets for the next review cycle.

The final step for top administrators ties performance to costs. These calculations are beyond the scope of our project, which developed and tested measurement procedures. But the ultimate management decisions come down to where to invest department resources for maximum effect. Managers will want to assess how much performance improvement they can "buy in each performance area with a finite investment. Then, guided by department priorities and resources available, administrators can make final performance targeting decisions and give facility and program managers the resources to achieve them.

CHAPTER TWO

MEASURES OF SECURITY

MEASURE 1: ESCAPE RATE

$$\frac{\text{NUMBER OF ESCAPES}}{\text{AVERAGE POPULATION}} \times 100$$

DESCRIPTION

This measure expresses the frequency of escapes as a rate -- the number of escapes per 100 average population. The measure should be calculated for each facility, each security level, and for all facilities taken together. Agencies will probably want information on escapes quarterly. Since escapes are relatively rare phenoma, and often happen in bursts, we recommend calculating running-averages covering the most recent twelve months. Single quarter rates are unstable, because the number of escapes fluctuates. Also, focusing on single-quarter data will hide longer-term trends. The running-average, calculated every quarter but covering a period of a full year, solves these disadvantages. Even very large corrections systems should use the running-average mode of calculation. All systems should use escape rates in addition to recording the number of escapes, since only rates can correct for facility size and make comparisons among facilities possible.

POTENTIAL DATA SOURCES

Data for this measure come from several places: handwritten escape/capture or incident reports, done by hand and collected in a facility's or

system's central office; computerized records of these reports; and computer-prepared tallies. All corrections departments should have at least one of these data sources available to them.

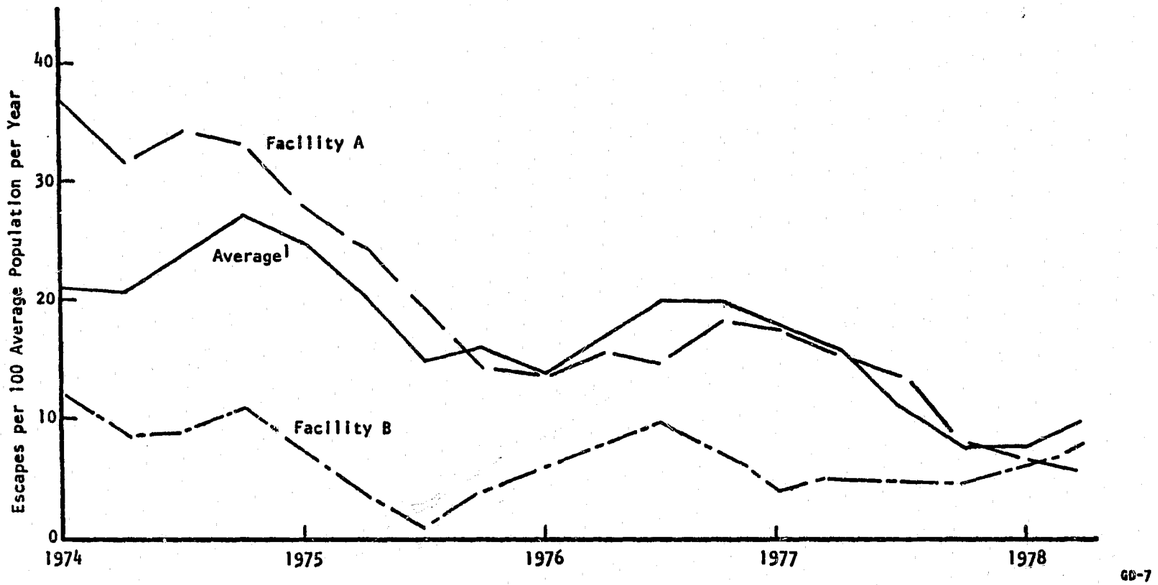
USING THIS MEASURE

Corrections managers looking at escape rates should first perform simple analyses which give a broad overview of performance. After locating trouble spots, they may then want to probe beyond performance information itself, to explain performance differences.

To gain an overview of system performance, Measure 1 should be calculated separately for each facility in the system, and arrayed to show improvement or deterioration in performance over time. Exhibit 2-1 shows a five-year history of escape rates from North Carolina minimum security youth facilities. The "average" performance line in Exhibit 2-1 reflects escape rates from eleven minimum security youth facilities. The exhibit also displays data from two of the eleven facilities, to illustrate the use of "average" and "best" performance as standards for comparison. Facility A performs more poorly than average from 1974 through most of 1976, then improves to average performance. But its escape rate remains significantly higher than Facility B's (the "best" performer) for most of the period under review. The trend for all eleven facilities represented in the average shows performance improvement over the five-year period -- the average escape rate drops from approximately 22 escapes per 100 inmates per year in 1974 to approximately 13 escapes per 100 inmates per year by 1978. Since Facility B has consistently outperformed the other facilities in this goal area, managers might want to ask themselves what Facility B does right, and attempt to duplicate its procedures in other facilities which need to improve

Exhibit 2-1

ESCAPE RATES FOR ELEVEN MINIMUM SECURITY YOUTH FACILITIES OVER A FIVE-YEAR PERIOD
(4-Quarter Running Averages)



GD-7

1. The "Average" line represents an average escape rate for eleven facilities, excluding Facility A and Facility B.

Source: Derived from data in the North Caroline Department of Corrections Statistical Abstract, 1974-1978, by dividing the number of escapes for each 4-quarter period by the average population for the period, for each facility. Each data point in Exhibit 2-1 represents a 12-month period ending with the calendar quarter shown in the chart.

their performance. Exhibit 2-2 shows the rather extreme differences in escape rates among the same 11 minimum security youth facilities. The worst facility has more than five times as many escapes per 100 inmates as the best-performing facility.

After using performance data like those in Exhibits 2-1 and 2-2 to learn that different facilities at the same security level have significantly different escape rates, managers might want to proceed beyond performance measurement itself, to explore some of the main reasons why they think this happens. They could then decide what corrective steps to take, if any. Thinking about minimum security facilities, from which by far the highest proportion of escapes occur in most corrections systems, managers might want to make the following comparisons to help identify factors that affect performance:

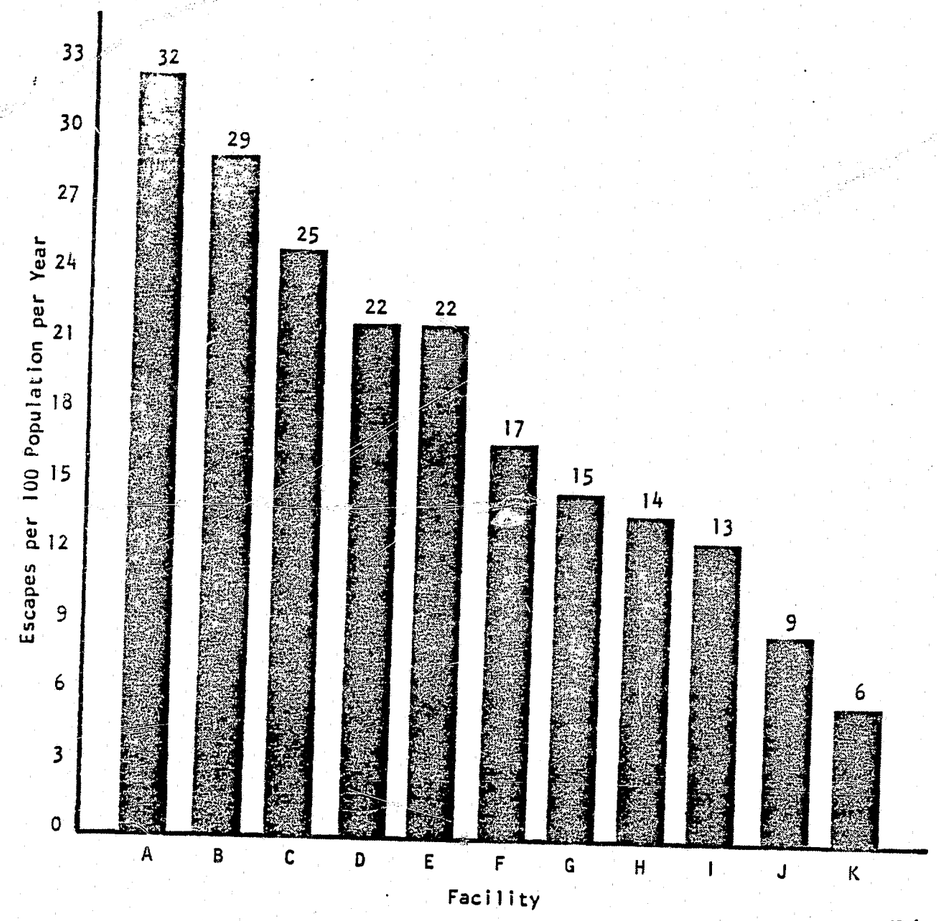
- facilities with fences vs. those without;
- facilities with work release programs vs. those without;
- facilities near environmental features that encourage escapes (such as facilities near major highways, cities, etc.) vs. those which are not;
- facilities with higher or lower proportions of different types of inmate;
- facilities with high vs. medium vs. low staff-inmate ratios;
- facilities with high vs. medium vs. low inmate turnover rates;
- facilities with high vs. low levels of assaults, disciplinary actions, or other indicators of unrest.

DATA COST AND QUALITY

Data on escapes and on facility populations are routinely available and reasonably accurate in corrections departments. With these data, five staff days were required to develop running-average escape rates for five

Exhibit 2-2

COMPARATIVE ESCAPE RATES
FOR 11 MINIMUM CUSTODY YOUTH FACILITIES



Source: Adapted from North Carolina DOC Statistical Abstracts, 1976-1978, by dividing number of escapes by average population for each facility. These data are averages of escape rates reported during the period. Similar displays could be constructed to cover any time period of interest.

years of data on each of North Carolina's 79 facilities. North Carolina's Statistical Abstracts, produced quarterly from computerized records, provided the basic data to make these calculations. It would subsequently take about one day per quarter to update escape rates for all of North Carolina's 79 facilities, and proportionally less time for systems with fewer units. If a state were interested in doing the detailed analyses suggested above, approximately 2 - 4 additional staff days would be needed for tabulations and preparation of displays. If you want these detailed analyses on a routine basis, it would be best to computerize them.

How facilities define an "escape" poses the basic problem of data quality for Measure 1. Although corrections departments usually have a clear official definition of what counts as an escape, individual facilities may differ in their enforcement practices.

For example, an inmate returning from work-release a few hours late may be counted as an escape in some facilities but not in others. We reviewed escape/capture reports in North Carolina to see how much of an inconsistency problem existed. We found no serious differences among facilities in which events they considered to be escapes. Any state planning to make cross-facility comparisons of escape rates should take some time to assess how consistently facilities apply the official definition of an escape to particular events. Once one determines that usage is consistent, or takes steps to make it so if important inconsistencies exist, comparisons between facilities within a system will be meaningful.

Should a department wish to compare escape rates from its own system with those of other state systems, it would be wise to check with the comparison states to find out what they use as their working definition of

an escape. States may differ over criteria for what counts as an escape and, therefore, escape data from different states may not be comparable. Criteria for escapes would need to be standardized and consistently applied in order for this measure to provide accurate comparative data between different state systems.

ALTERNATIVES

The most commonly used measure of security failures is a simple count of escapes during a given time period. We strongly recommend that departments calculate the rate given by Measure 1 in addition to a simple count, because the rate allows you to make better comparisons of performance for facilities with different numbers of inmates. It is far too easy to make the mistake of looking at the number of escapes from two facilities, registering the fact that each has had ten escapes during the past quarter, but forgetting that one of them has three times the number of inmates as the other. The larger of these two facilities has the better performance record, but this fact often slips by because only the raw count of escapes appears on a report.

MEASURE 2: ESCAPE SERIOUSNESS

2A: ESCAPEES RETURNING WITH NEW CRIMINAL CHARGES / AVERAGE POPULATION

DESCRIPTION

Incarceration should protect the public from additional crimes by convicted offenders so an index of escape seriousness should measure the extent to which escapees commit new crimes. A "serious" escape thus designates one which results in new crimes, whereas an escape with a relatively low probability of endangering the public is less serious. Measure 2a shows escapees recaptured with new criminal charges (not including a criminal charge for the escape itself), in proportion to the average population of a facility or system during the base measurement period. Measure 2a parallels Measure 1. It gives a "serious escape rate", whereas Measure 1 gives a total escape rate. Measure 2a will, therefore, always represent the "serious" portion of the total number of escapes given by Measure 1.

POTENTIAL DATA SOURCES

Data for Measure 2a would come from official documents which accompany recaptured escapees, such as Escape/Capture Reports. Most corrections departments are informed if new criminal charges are pending against escapees at the time they are returned to custody. To calculate Measure 2a:

- Take, as your base for "average population", the figures for the same time period during which the escapes occurred;
- Count the escapes that have been returned to prison with new criminal charges, selecting a consistent lag time after which to make this count (since some number of escapees do not return for long periods of time after escape).

We recommend counting all returns during the base period plus one month after the end of the base period, because about two-thirds of escapees were returned to prison within that time in our North Carolina test of escape seriousness measures. Extending the lag-time to three months will only pick up about 8 percent more escapees, so the extra wait does not seem worth the trouble. Do not count any returns during the lag-time month of inmates who escaped before or after the base period.

- Maintain a log of escapees returned on new charges as they come in, rather than waiting until the end of a reporting period and attempting to reconstruct a tally by searching through files;
- Add up the logged entries, divide by the average population, and multiply by 100 to get the "serious escape rate" per 100 average population for the reporting period.

USING THIS MEASURE

Corrections managers can use this measure to indicate whether efforts to minimize serious escapes have worked. Tracked over time, this measure shows whether the rate of serious escapes is increasing, decreasing, or remaining constant. One could also calculate separate "serious escape rates" for people promoted to minimum custody from each medium security facility. Then, if these rates differed significantly -- say, one medium security unit promoted people who were twice as likely to escape and commit new crimes as those promoted from the other medium security units -- managers could evaluate promotion practices.

DATA COST AND QUALITY

Data for Measure 2a can be obtained from the documentation accompanying escapees when they are returned to prison. In North Carolina, approximately 70 of the 906 prisoners who escaped during 1978 were returned on new charges. Even if a single log entry took a clerk 5 minutes, logging 70 entries adds

up to less than one work day per year to produce Measure 2a.

Although Measure 2a uses data available to most corrections departments, it has some shortcomings of data quality and interpretability. Because it counts only new crimes of recaptured escapees, it misses crimes committed by escapees not yet recaptured and may not even count all the crimes committed by those escapees who have returned to prison. We cannot tell what proportion of new crimes Measure 2a misses, but it is probably some substantial number since the longer escapees remain at large, the more chances they have to resume criminal activity. In our discussion of "Alternatives" below, we describe other possible ways to measure the danger of new crimes by escapees. These alternatives cost more and require more extensive research than Measure 2a. Since measures of escape seriousness may not have a very high priority with corrections departments, we have suggested Measure 2a despite its deficiencies.

ALTERNATIVES

MEASURE 2B: ESCAPEES WITH HIGH "BASE EXPECTANCY SCORES" FOR RECIDIVISM AVERAGE POPULATION

Escape seriousness can be approached as an after-the-fact assessment (as in Measure 2a) by looking at the crimes actually committed by recaptured escapees. On the other hand, Measure 2b treats escape seriousness as a predictive problem by calculating "base expectancy scores" for all escapees. These scores estimate the probability that escapees will commit new crimes, based on individual characteristics and prior history of escapees. They are usually used to predict recidivism upon official release from prison but can serve equally well as predictors of new criminal activity by

escapees. Measure 2a thus tells how many escapees are known to have committed new crimes, whereas Measure 2b tells how many escapees are predicted to constitute a serious risk to the public of new criminal acts.

Many corrections departments are familiar with attempts to predict recidivism and have developed ways to calculate base expectancy scores on released inmates. Base expectancy scores usually combine information from individual inmate records into an index. Procedures for computing the scores needed for Measure 2b will exist only in those states which have already invested the effort to develop a formula for calculating base expectancy rates. Common data elements used in such indices are the number of prior convictions or incarcerations, age at first commitment, history of highly repetitive crimes (auto theft, forgery, burglary), index offense, history of chemical dependency, history of job stability, and the like. Exhibit 2-3 displays one such index -- the Salient Factor Score developed by the U.S. Parole Commission to assist in making parole decisions. If your department has not already developed a base expectancy scoring procedure, you probably do not now consistently record the necessary data elements. We recommend Measure 2b to those states already using base expectancy rates. Other states will need to do some significant amount of work to obtain Measure 2b.

States using Measure 2b as a measure of escape seriousness will need to decide what scores to count as "serious" and what scores to count as relatively inconsequential. For instance, with the Salient Factor Score of Exhibit 2-3, which has a range from 0 to 11 (higher scores indicate a lower likelihood of commiting new crimes), you might count all escapees with Salient Factor Scores of 0 through 4 as serious escapes -- that is, those

Exhibit 2-3

SALIENT FACTOR SCORE*
(REVISED)

Register Number _____ Name _____

Item A----------

No prior convictions (adult or juvenile) = 3
One prior conviction = 2
Two or three prior convictions = 1
Four or more prior convictions = 0

Item B----------

No prior incarcerations (adult or juvenile) = 2
One or two prior incarcerations = 1
Three or more prior incarcerations = 0

Item C----------

Age at first commitment (adult or juvenile):
26 or older = 2
18 - 25 = 1
17 or younger = 0

*Item D----------

Commitment offense did not involve auto theft or check(s) (forgery/larceny) = 1
Commitment offense involved auto theft [X], or check(s) [Y], or both [Z] = 0

*Item E----------

Never had parole revoked or been committed for a new offense while on parole, and not a probation violator this time = 1
Has had parole revoked or been committed for a new offense while on parole [X], or is a probation violator this time [Y], or both [Z] = 0

Item F----------

No history of heroin or opiate dependence = 1
Otherwise = 0

Item G----------

Verified employment (or full-time school attendance) for a total of at least 6 months during the last 2 years in the community = 1
Otherwise = 0

TOTAL SCORE----------

*From: P.B. Hoffman, B. Stone-Meierhoefer & J.L. Beck, "Salient Factor Score and Releases Behavior: Three Validation Samples." U.S. Parole Commission Research Unit Report #15, August, 1977, p. 21.

escapees constitute a serious risk to the community of new crime.

Another reason for consigning Measure 2b to alternative status is that it measures probabilities, not actualities. It estimates only the potential seriousness of escapes. Of course, even Measure 2a misses those new crimes not known to the police and corrections officials, and other research suggests that these may be the majority of new crimes committed. While Measure 2b is merely suggestive of the actual risk of new crime, it has the advantage of being available whether or not escapees are recaptured, which Measure 2a does not. (Measure 2a assumes that any escapee still at large has not committed any new crimes.)

A third possibility parallels Measure 15b for recidivism, and the reader is referred to our presentation of that measure. Measure 15b uses computerized records of police and court transactions, accessed by using the name, race, sex, and date of birth of the person for whom you want information, to determine whether inmates have been arrested for new crimes. A few states have developed such a system, often referred to as an Offender-Based Tracking System (OBTS), but most have not. If your state has an operational OBTS, computing Measure 15b for escapees rather than ex-offenders will be somewhat more expensive than Measure 2a but the information you get will definitely be more complete. Departments interested in this option should read all the factors discussed with regard to the data quality, costs, and procedures for Measure 15b.

Since each alternative has its advantages balanced by disadvantages, each corrections department will have to choose which approach to measuring escape seriousness best suits its reporting needs and its level of sophistication in data handling.

CHAPTER THREE

MEASURES OF LIVING AND SAFETY CONDITIONS

MEASURE 3: INMATE VICTIMIZATION

3A: $\frac{\text{NUMBER OF INCIDENTS OF INMATE VICTIMIZATION DURING BASE PERIOD}}{\text{AVERAGE INMATE POPULATION DURING BASE PERIOD}} \times 100$

3B: $\frac{\text{NUMBER OF INMATES VICTIMIZED DURING BASE PERIOD}}{\text{AVERAGE INMATE POPULATION DURING THE BASE PERIOD}}$

3C: PROPORTION OF INMATES WHO FEEL THEIR PERSON AND PROPERTY ARE SAFE IN PRISON

DESCRIPTION

Prisons should strive to assure inmates of freedom from fear of injury or extortion by other inmates, and to reduce incidents of victimization.

Events considered victimization for purposes of these measures are: homicide, assult, forced sex, and strongarming or extortion (threat of force to extract material goods, services, or other advantage). Measure 3a gives the average number of victimization incidents per 100 inmates during the base period. If you use a base period other than one year, you may also want to annualize the figures you obtain from Measure 3a. Measure 3a spreads victimization incidents over the entire inmate population. However, in reality some inmates may experience more victimization than others. We therefore also suggest Measure 3b, which gives the proportion of the prison population who have experienced one or more victimization episodes.

The higher the reading you get on Measure 3a, the more incidents of victimization you have on your hands; the higher the reading on Measure 3b, the more widespread is the victimization among the entire prison population.

POTENTIAL DATA SOURCES

Data for Measure 3a and 3b come from special surveys of inmates or from prison discipline or rule violation reports. Special surveys (see Appendix A for an example) provide a more comprehensive reading on inmate victimization that discipline reports.

Inmate victimization surveys provide data for Measure 3a, 3b and 3c.* Such surveys have both advantages and disadvantages. Advantages include the ability to get a more accurate and complete reading on what actually happens to inmates, and to assess their level of fear of victimization at the same time. The primary disadvantage is the time and special effort it takes to develop and administer a survey. Because official records appear to miss a substantial proportion of victimization incidents, we strongly recommend that corrections departments conduct an inmate survey once a year to obtain data for Measures 3a, 3b and 3c. An additional advantage is that the same inmate survey can collect data for other performance measures as well (e.g., Measures 4 and 5).

We tested an inmate survey in North Carolina. The survey appears quite feasible, and was of interest to corrections management. Appendix A contains the questionnaire we used; corrections agencies may want to adapt this form for their own use. The results of the North Carolina test are reported in Exhibit 3-2. Death records will supply information on homicides.

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* Measure 3a and 3b use Questions 12, 16, and 24. Measure 3c uses Questions 7,8,9,13 and 21. Procedures for conducting an inmate survey are given in Appendix A.

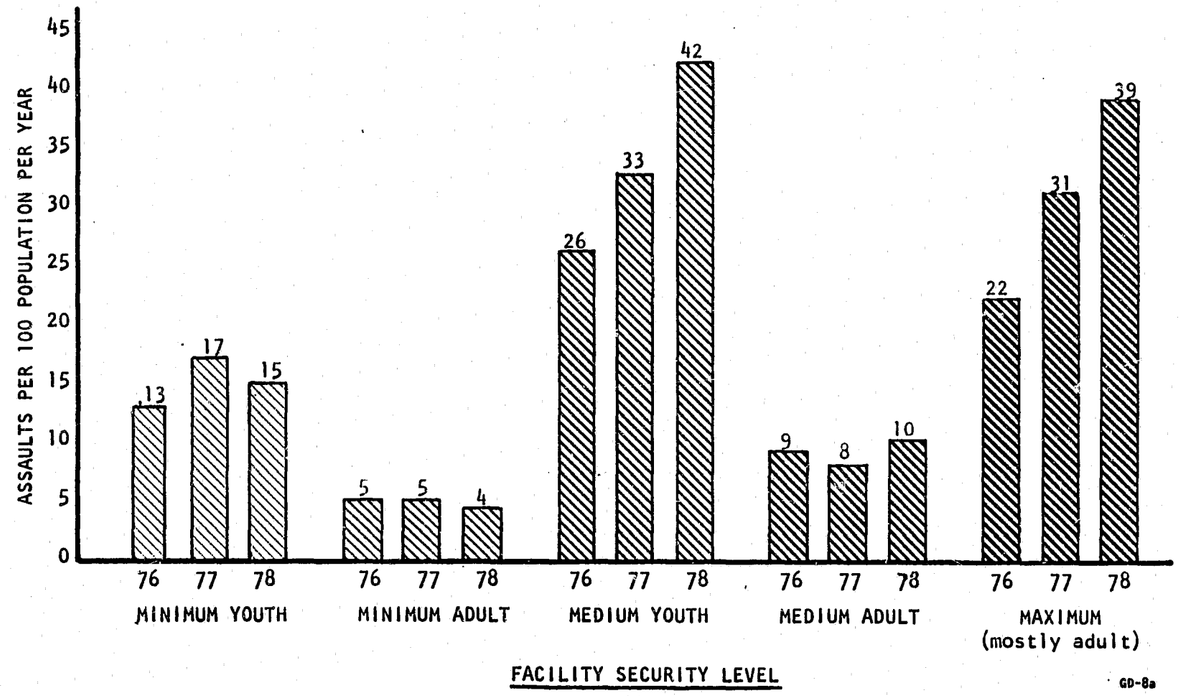
Discipline reports are an alternative source of information for Measure 3a. They have the advantage of being a readily available source of data, but discipline reports will significantly underestimate the actual number of assaults, sex and strongarming. With regard to sexual victimization, the discipline procedures of many prison systems do not distinguish between voluntary sexual acts and coercive or victimizing sexual acts. Since any sexual act is grounds for disciplinary action in these systems if known to prison authorities, calculation of victimization rates involving forced sex will not be possible.

USING THESE MEASURES

Corrections managers may want to compare victimization rates among facilities at different security levels, and among different types of inmates, such as younger versus older inmates. Exhibit 3-1 illustrates comparisons among minimum, medium, and maximum security adult and youth facilities in North Carolina, using data from computerized records of assaults. Exhibit 3-1 suggests that offender age (youth in particular) is more significantly related to the number of assults reported in disciplinary actions than is security level. The exhibit also indicates that assault rates have significantly increased in medium security youth and maximum security facilities over the three years reported. These data should prompt managers to explore the causes of the increases. Before acting on the data in Exhibit 3-1, a corrections manager would need additional information. Do facilities follow a consistent philosophy in making disciplinary charges? Could the higher rates of assault in youth facilities stem from a policy of more stringent enforcement of prison rules for youthful offenders, whereas guards overlook more incidents in facilities which house older offenders?

Exhibit 3-1
(Measure 3a)

ASSAULT RATES IN NORTH CAROLINA FACILITIES FOR THREE YEARS, BY SECURITY LEVEL



Source: Data from North Carolina Department of Corrections Annual Statistical Abstract, 1976-78.

EXHIBIT 3-2

MEASURES 3a AND 3b, AS REPORTED ON AN INMATE SURVEY (N=153)

TYPE OF VICTIMIZATION	MEASURE 3b -- PERCENT OF SAMPLE REPORTING AT LEAST ONE INCIDENT DURING THE PRECEDING MONTH[1]	MEASURE 3a -- ANNUALIZED RATE OF VICTIMIZATION PER 100 INMATES[3]
ASSAULT	4%	72 per 100
STRONGARMING	3%	54 per 100
FORCED SEX	2%	31 per 100
ALL INCIDENTS	7%[2]	143 per 100

1. The survey used a one-month recall period because memories fade and inaccurate reporting occurs the longer the time period assessed.

2. Some inmates reported more than one type of incident. Some inmates also reported more than one assault or more than one strongarming incident during the past month.

3. The annualized rate was calculated as:

$$\frac{\text{Number of incidents reported on the survey for one month}}{\text{Number of inmates completing the survey}} \times 12 \text{ months} \times 100$$

SOURCE: Special survey of felons with sentences of 4 or more years entering North Carolina prisons between February and April, 1979. This sample represents approximately 15% of admissions to North Carolina prisons, but about 60% of the inmate population at any given time. Experiences of short term inmates may be different.

If so, then the differences in Exhibit 3-1 may reflect enforcement policy, not victimization differences. But if enforcement policies and working definitions of assaults are similar across facilities, then the data reflect differences in victimization.

Analysis of victimization by type of activity (assaults, strongarming, forced sex) will help corrections managers determine what kind of action is needed to reduce victimization. These data will have to come from questionnaires or inmate surveys, since most prison disciplinary reporting systems will not coincide with important types of victimization. Exhibit 3-2 presents data on self-reported assaults, strongarming and forced sex experienced by 153 North Carolina inmates. Exhibit 3-2 suggests that victimization happens to only a small proportion of the prison population each month, but that those people are on the receiving end of significant and repeated victimizing incidents . These data point to the need to identify and protect the few heavily victimized prisoners. On the other hand, during the course of may months' incarceration, a fairly high percentage of inmates may experience at least one victimizing incident. Jan Schreiber of our advisory group reports 28 percent of inmates saying they have ever been injured by another inmate during their present prison term; 47 percent report at least one theft during the same period.* Tracking victimization rates based either on survey or disciplinary data over time will indicate any trends in safety levels. They will provide management with feedback on previous efforts to reduce victimization.

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* Jan Schreiber, et al., Victimization in State Prisons. Boston; Social Science Research Institute, 1980. Draft Final Report of National Institute of Justice Grant No. 78-NI-AX-0122.

Other results from the North Carolina inmate survey illustrate the ways in which corrections managers can use information to guide performance improvement. In the North Carolina sample, the more inmates perceived staff in their own facility as fair, knowledgeable about what went on in their units, and in control (Question 29 of Appendix A), the less danger inmates felt for their persons and their property, the less they reported knowing about victimizing behavior on the unit, and the less victimization they reported for themselves. These findings occurred regardless of security level of the unit or the inmates' living arrangements (multi-person cell, dormitory, etc.).

To reduce both victimization itself and the fear of victimization, agencies might teach staff these behaviors and skills, emphasizing fair treatment of inmates and demonstrating a determination to protect inmates from each other.

DATA COST AND QUALITY

Individual administration of an inmate victimization survey will take 15-20 minutes of inmate time per inmate to fill out the survey, and 15-20 minutes of staff time per inmate to instruct each inmate about how to fill out the survey and be available for questions. If a facility must establish special procedures to conduct the survey rather than tying administration to some routine procedures, 2 to 3 days of staff time per administration will be needed to plan and carry out sample selection and get inmates to the right place at the right time. Data preparation and analysis time should take about 2 days of staff analyst time per 100 inmates surveyed for each time the survey is administered (probably once a year). Moos (1975) has found

sample sizes of between one-fourth and one-third of the population of a unit, randomly selected, to provide reliable indicators of unit climate and other environmental characteristics. (In this context, "reliable" means that you get the same answers from asking a sample of inmates as you would from asking all inmates.) We believe equivalent sample sizes will provide acceptable estimates of victimization rates (Measures 3a and 2b) and especially levels of fear and concern about victimization (Measure 3c).

Total amount of staff time needed for the victimization survey, for each 100 inmates, ranges from 10 days if the survey coincides with some other routine procedures to 15 days if it must be specially arranged. This time will spread over more calendar days, but the actual time devoted to the effort should not exceed these estimates. The corrections department calculating these costs should bear in mind that once the commitment is made to conduct a survey, Measures 4a, 4b, 5e and 10c become possible, so the investment buys more than victimization data, important as that is.

If a department cannot do an inmate survey, but does want routine feedback on victimization rates, it can use disciplinary records of assaults. These will not cover the range of types of victimization, but will at least provide "tip of the iceberg" information to corrections managers. If assault reports are computerized already, creating tables for feedback purposes should not take more than one day of analyst time per year. If assault reports are not computerized, but are logged by officials in charge of disciplinary procedures at each facility, it will take between one and two days per year per facility to extract the necessary information from the logs. The time needed depends on the size of the facility and the number of incidents involved. This time estimate assumes that only the number of incidents, the facility, and the security level will be recorded, and data analysis will have to be restricted accordingly.

Conducting an inmate survey improves the completeness and consistency of data on victimization, but raises questions about when and how to administer it. We asked inmates involved in pretests of our questionnaire whether they and other inmates would be more likely to answer honestly if it was administered individually and privately or in a group situation. Under either circumstance, no names or identifying information would be asked on the questionnaire. Most inmates favored individual administration; many inmates said that no amount of reassurance about anonymity would reduce their suspicion if the slightest chance existed that someone could look over their shoulder while they filled out the survey. In the North Carolina test, inmates filled out the survey at the time they came in for a post-test medical examination (see Measures 9 and 10), but most corrections departments will not regularly have such an appropriate opportunity for giving a victimization survey. Other possibilities are:

- administer it to a sample of inmates as they keep appointments with counselors, teachers, unit administrators, or any staff person with whom all inmates must have a private meeting;
- administer it to a sample of inmates as they go through routine pre-release procedures;
- create special procedures to administer the survey individually to a sample of inmates each year.

Corrections departments could choose whichever administration procedure is easiest to administer, given local conditions. See Appendix A for suggested procedures for conducting inmate surveys.

Relying on official records of disciplinary incidents for data to construct Measure 3a has serious drawbacks. Official disciplinary reports depend on staff knowledge of victimization and consistent use of disciplinary procedures (victimization events of equal seriousness consistently receive equivalent charges and punishments). But staff most likely will not know about certain types of victimization, such as strongarming or forced sexual incidents. And different staff, as well as staff in different facilities, will almost certainly not apply disciplinary procedures consistently. The recommended data source, inmate surveys, can be time-consuming to administer but yields more complete self-report information about the amount of victimization inmates actually experience. Surveys can also assess Measure 3c, inmate fear levels, that disciplinary reports will not capture.

MEASURE 4: PRISON ATMOSPHERE

4A: PROPORTION OF INMATES EXPRESSING DISSATISFACTION WITH PRISON CONDITIONS (INDEX SCORE DERIVED FROM INMATE SURVEY DATA)*

4B: CORRECTIONAL INSTITUTION ENVIRONMENT SCALE**

DESCRIPTION

These measures of prison atmosphere provide a way for officials to "take the temperature" of a prison, and to discover what aspects of prison life cause inmates most distress. Measures 4a and 4b both require direct assessment of inmate feelings and perceptions through a questionnaire given to a sample of inmates.

Measure 4a uses data from the survey given in Appendix A, or any survey that taps similar dimensions of prison life. Questions tap (dis)satisfaction with safety (Questions 7-8), staff control (Questions 25-29), living conditions (Questions 30-31), boredom/level of activity (Question 34), sanitation (Questions 30-31), food (Question 32), medical care (Question 33), and recreational opportunities (Question 35). Perceptions of overcrowding (Questions 30-31) may be included as part of Measure 4a, treated separately as in Measure 5e, or both. In addition, we include perceptions of safety, both of one's person and one's property, as part of Measure 4a, although they also serve as indicators of victimization (Measure 3c).

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*See Appendix A, Questions 1 through 35.

**This scale, developed by Rudolph Moos and associates, has been used in many correctional settings. Moos' book, Evaluating Correctional and Community Settings (New York: Wiley, 1975), describes the scale and its uses extensively. The book also provides reliability and validity data, and numerous points of comparison to correctional settings where Moos has used the scale to assess prison environment. The short form of the CIES is reproduced in Appendix A, pages A-16 to A-18.

Measure 4b, the Correctional Institutions Environment Scale (CIES), assesses dimensions of relationship (involvement, support, expressiveness), program (autonomy, practical orientation, personal problem orientation) and system maintenance (order and organization, clarity, staff control). It is the only scale measuring institutional environment currently available. Although it has its critics, some corrections managers may feel it is better than anything else they have at the present time. Measure 4a covers living conditions. Measure 4b concentrates mostly on programmatic aspects of corrections environments.

We have not tested either Measure 4a or 4b in their entirety, although many questions that provide data for Measure 4a were contained on the questionnaire used in the North Carolina test (Questions 7,8,9,13,21,25-29). Measure 4b (the CIES) is a fully-developed and extensively used instrument. Measure 4a contains some questions pretested on our North Carolina sample, and some questions added later which have not been tested. Any department interested in these measures should pretest the questionnaire on a small sample of inmates to determine whether it is appropriate for local conditions and meaningful to inmates.

POTENTIAL DATA SOURCES

All data for Measures 4a and 4b come from a special survey of the inmate population. None of the data presently exist in corrections records. Questions that gather data for these measures can be asked along with questions for Measures 3a-c (inmate victimization). See Appendix A for suggested questionnaire format and procedures for conducting an inmate survey.

USING THESE MEASURES

Since no absolute way exists to say how much dissatisfaction is too much, corrections officials using Measures 4a and 4b will have to decide for themselves what level of dissatisfaction constitutes a source of concern. As managers use these measures from one period to the next, patterns and differences in levels of satisfaction will have more meaning than any single reading. Major increases in dissatisfaction from one time period to another, or evidence in single facilities of unusually high dissatisfaction should prompt prison officials to explore the reasons and search for ways to reduce dissatisfaction.

Inmate responses to the CIES (Measure 4b) can be compared over time and across facilities. Moos (1975) also gives average facility ratings for several types of facilities (juvenile, minimum adult, etc.). These average ratings are summaries of findings in the many facilities that have used the CIES. A corrections manager could compare inmate responses in his own facility to Moos' average responses to get additional perspective on how to interpret inmate feelings in his facility.*

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*Moos (1975) illustrates several ways to use his CIES to get one-time readings on institutional climate. Staff as well as inmates can fill out the CIES, and both can be asked to fill it out as the unit really is, and as they ideally would like it to be. Managers can use several sets of discrepancy scores to discover potential difficulties. Real-ideal discrepancies of inmates, real-ideal discrepancies of staff, and inmate-staff discrepancies can be plotted and used as feedback to generate discussion about how to maintain or improve institutional climate.

DATA COST AND QUALITY

Administrative costs and considerations of when and how to conduct an inmate survey have been discussed in relation to Measure 3. Adding the questions for Measure 4a to the inmate victimization survey adds between 5 and 10 minutes per inmate to fill out the survey form. Adding the CIES short form (Measure 4b given in Appendix A) takes between 10 and 15 minutes per inmate. A department should encounter no administrative costs for including Measures 4a and 4b other than those necessary to collect Measures 3a, 3b and 3c.

Data for Measures 4a and 4b need not come from the entire prison population. Moos (1975) reports that samples of approximately 50 percent of the population of small facilities (those with fewer than 40 inmates and fewer than 20 staff) and 25 percent for larger facilities are adequate to provide reliable readings on the CIES. These samples must be randomly selected. We have assumed the same sample sizes to be appropriate for Measure 4a.*

The CIES yields results that staff and inmates see as reasonable descriptions of their facilities. These results provide meaningful feedback to corrections staff and administrators. The CIES has been used in many different correction facilities, by both outside researchers and corrections managers. Thus, we feel quite confident in recommending the CIES as Measure 4b. The set of questions comprising Measure 4a have no

*See Appendix A for a discussion of sampling, including whether to sample or use the whole population, and what sample size is large enough for particular purposes.

similar pedigree. We suggest them because they describe dimensions of prison atmosphere perceived as relevant indicators of unrest by our advisory group members. Because growing institutional tensions often initially surface as complaints about food, medical care, lack of activity, fears of victimization and lack of staff control, we designed the questions for Measure 4a to assess these feelings directly. We do not propose these questions as true reflections on the state of the food service or recreational program; rather, complaining about services should be taken as a reading on the "temperature" of the institution.

Measure 4a assesses specific living conditions as inmates experience them. Measure 4b focuses heavily on programs--whether the correctional environment tries to help inmates deal with personal problems or with practical problems of earning a living or getting along in the community. Managers could use the results of Measure 4a to review performance in keeping inmates safe, clean, occupied, and treated fairly. Measure 4b would be more useful for determining whether the institution's program as inmates perceive it corresponds to the program that staff are trying to deliver. If inmates see the program very differently from the way corrections managers want the program to be, managers should try to find out why, and what they can do to bring the "program-as-perceived" closer to the "program-as-intended."

MEASURE 5: OVERCROWDING

5A: SEVERITY OF OVERCROWDING =

$$\frac{\text{INMATE DAYS SPENT IN OVERCROWDED CONDITIONS}}{\text{TOTAL NUMBER OF INMATE DAYS}}$$

5B: PRIVACY = $\frac{\text{NUMBER OF INMATES HOUSED IN SINGLE CELLS OR CUBICLES}}{\text{AVERAGE POPULATION}}$

DESCRIPTION

We recommend measures of severity of overcrowding and of privacy. Measures of other aspects of overcrowding are left for discussion as alternatives.

Severity of overcrowding (Measure 5a) summarizes the extent to which inmates live in space considered inadequate by the American Correctional Association (less than 60 square feet per person is inadequate). There are several different ways to calculate the value of Measure 5a:

(1) Every day, determine the number of inmates living in space of less than 60 square feet (80 ft^2 in segregation), add these figures by the week, month or year to get the number of "overcrowded inmate days." Divide this number by the total number of inmate days for the time period.

(2) Calculate the square footage of cell blocks, dormitories, or other sub-areas within facilities. Divide by 60 (or 80 for segregation areas) to get the "capacity." Count the inmates housed in each sub-area daily. If daily count exceeds capacity, the entire daily count is housed in overcrowded conditions for that day. Add up the daily counts from all days on which the population exceeded capacity to get the number of "overcrowded inmate days." Divide by the total number of inmate days.

(3) Calculate the square footage of the living areas in an entire facility. Divide by 60 to get the "capacity." Follow procedures for calculating (2).

The first method of calculating "overcrowded inmate days" yields the most accurate assessment of the space available to each inmate, because it uses the actual space around each inmate bed rather than taking an average for a sub-area or a whole facility. We recommend the first method of calculation for this reason, and because it does not allow days when the population falls below capacity to compensate for overcrowded days. It also recognizes that all inmates experience overcrowding when population exceeds capacity, not just the proportion of inmates who are "over capacity."

Measure 5b, degree of privacy accorded inmates, approaches the overcrowding problem from the perspective of privacy rather than square footage. McCain and colleagues (1980)* have recently shown significant mental health effects of overcrowding. These effects were associated as much with psychological feelings of privacy than with actual space available to inmates. Inmates in single cells who had less actual square footage per person than inmates in multi-person cells had fewer negative symptoms and feelings than their technically less crowded counterparts. Similarly, introduction of one-person cubicles providing a significant amount of privacy into domitory situations reduced the effects of dormitory housing from the most severe negative mental symptoms to levels approximating single cell occupancy. Since space requirements are intended to reduce the negative consequences of overcrowding, and since single cells or cubicles in dormitories reduce those negative consequences, we recommend Measure 5b as a more direct way to assess performance in this area of humane treatment than a measure based on technical adherence to a 60 square foot criterion.

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* McCain, Garvin, Verne C. Cox and Paul B. Paulus, The Effect of Prison Crowding on Inmate Behavior. Final report on LEAA Grant No. 78-NI-AX-0019.

POTENTIAL DATA SOURCES

For Measure 5a, all corrections departments keep records of average population, from which they can calculate the total number of inmate days. Calculation of Measure 5a by the first method given above requires measurement of the space around each bed and classification of each bed area as adequate (60 square feet or more) or inadequate (less than 60 squate feet). The daily count should include the number of inmates housed in inadequate space. Weekly or monthly assessment of Measure 5a may suffice if a prison's population does not fluctuate much.

Obtaining Measure 5a using the second or third method of calculation described above will require a one-time estimate of the square footage available in sub-areas or whole facilities. Thereafter, simple comparisons of population to capacity will yield Measure 5a. For Measure 5b, departments will need to begin recording the number of inmates housed in single cells or cubicles. Monthly, or at most weekly, recording of this figure would provide adequate precision for Measure 5b.

USING THESE MEASURES

Both Measures 5a and 5b register progress or lack of it in providing inmates with adequate housing. Managers should obtain these measures for each facility, and may also want to summarize the measures by security level. Changes over time will also be important.

DATA COST AND QUALITY

It will probably take one or two weeks per facility to determine capacity. The larger time estimate will probably be needed to provide the "space-per-bed" information necessary for the recommended method of

calculating Measure 5a. Assessing capacity need only be done once, unless capital improvements expand capacity or more beds added to dormitories or cells reduce previously adequate space to inadequate space. Determination of single cell/single cubicle capacity for Measure 5b can occur at the same time.

Once a department identifies adequate and inadequate space (for Measure 5a) and single cell/single cubicle capacity (for Measure 5b), it should establish a policy that adequate space and/or single cells/cubicles should always be filled before assigning inmates to other living quarters. It will then be easy to calculate both Measures 5a and 5b by comparing the inmate population to capacity.*

It should take someone at each facility no more than one hour each month to calculate Measure 5a, assuming the facility's population is stable enough that a reading on Measure 5a one day each month will capture the extent of overcrowding without too much distortion. If facilities send these calculations to the central office each month, it should not take more than one day of analyst time per year to calculate both Measure 5a and 5b even for a large system like North Carolina's.

ALTERNATIVES

Three alternative ways to measure overcrowding could be used to

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* Suppose a facility has 50 adequate living spaces and 50 inadequate ones. If the population is 100 inmates, 50 are overcrowded, and Measure 5a=50 overcrowded days per 100 inmates=.50. If the population goes to 120 and the extra 20 inmates are added to the already inadequate space, this leaves 50 inmates in adequate housing and 70 inmates overcrowded. Measure 5a = 70 + 120 = .58. If the extra 20 inmates were housed in previously adequate space, making 20 previously single cells into inadequate double cells, Measure 5a = 90 + 120 = .75. If all inmates have inadequate space, Measure 5a = 1.00.

supplement the information from Measures 5a and 5b.

Measure 5c: $\frac{\text{average population}}{\text{capacity}}$

This way of calculating overcrowding is probably the most widespread among corrections departments today. It will underestimate overcrowding, since days during which population drops below capacity can compensate for days above capacity. Its accuracy also depends on how precisely you define "capacity." (See the discussion above of the recommended way to define capacity). Nevertheless, severely overcrowded systems will find Measure 5c accurate enough for their purposes.

Measure 5d: $\frac{\text{"program beds"}}{\text{total beds}}$

Several corrections administrators suggested the desirability of a measure of overcrowding which considers how many people an institution can accomodate in its programs, regardless of its physical space. A "program bed" would be defined as a single cell bed whose occupant has a meaningful assignment every weekday (work, school, training, drug or alcohol treatment program, or other major time commitment). By this measure, an institution is overcrowded to the extent that it cannot keep inmates busy at significant activities most of the time.

Measure 5e: $\frac{\text{inmates reporting feelings of overcrowding}}{\text{all inmates}}$

Perceptions of overcrowding among inmates can supplement Measures 5a and 5b to indicate the human side of physical arrangements. McCain et al. found that "social density" (feelings of overcrowding) had at least as important effects as physical density on illness complaints and other negative consequences of overcrowding. Corrections departments could include questions

on crowdedness as part of the survey to assess victimization (Measures 3a, 3b and 3c) and prison atmosphere (Measures 4a and 4b). This would require little additional administration or data analysis time. Appendix A contains suggested question formats for asking inmates how overcrowded they feel (Questions 30 and 31).

MEASURE 6: SAFETY OF PRISON BUILDINGS AND PHYSICAL SURROUNDINGS

$$6A: \text{FREQUENCY OF SAFETY FAILURES} = \frac{\text{NUMBER OF INJURIES/ACCIDENTS DURING BASE PERIOD}}{\text{AVERAGE POPULATION DURING BASE PERIOD}} \times 100$$

$$6B: \text{SERIOUSNESS OF SAFETY FAILURES} = \frac{\text{DAYS LOST FROM WORK OR OTHER ASSIGNMENT DURING BASE PERIOD}}{\text{AVERAGE POPULATION DURING BASE PERIOD}} \times 100$$

DESCRIPTION

We follow the lead of the Occupational Safety and Health Administration (OSHA) and focus on the number of accidents or injuries to inmates as measures of the safety of prison environments. Measure 6a, the frequency of safety failures, counts the numbers of accidents or injuries occurring during a base period, and compares that to the total population to produce a rate. Measure 6b, the seriousness of safety failures, provides information on the consequences of accidents and injuries--specifically, the work-related consequences of losing time from work, school, or other assignment due to accident or injury. Measures 6a and 6b include all incidents, whether industrial, recreational, or other miscellaneous injuries and accidents. They should also be calculated separately for these types of incident since corrective actions will differ depending on where most injuries occur. We recommend using OSHA's definitions of reportable injuries and work-loss days. This will permit comparing Measures 6a and 6b across correctional jurisdictions, or to data available from non-prison sources such as private sector accident rates. For OSHA, an incident counts as a reportable injury if it resulted in medical attention beyond first aid, resulted in loss of consciousness, or involved loss of work days beyond the day of the injury.

A "work-loss day" is time lost from work beyond the day the injury occurred. Each succeeding weekday until return to equivalent work counts as a work-loss day.

POTENTIAL DATA SOURCES

Prison industries are required to use these OSHA definitions to report industrial accidents annually to OSHA, so these definitions should not be foreign to some staff in every corrections department. Staff familiar with maintaining records of reportable injuries and work-loss days could help medical and other staff develop recording procedures for injuries unrelated to work settings.

Departments may have an Accident/Injury Report form which they require to be filled out for each accident or injury. We found that reports of accidents and injuries occurring in prison industries appear to be much more reliably completed than reports of other accidents. This probably stems jointly from the pressures of national regulatory agencies such as OSHA on prison industries and the business-related need to track non-productive (sick) time. Recreational and other accidents and injuries (including those from assaults) often go unreported unless inmates themselves seek medical attention and admit the cause of their injury. Inmate reporting is least likely when fighting with other inmates caused an injury.

To be of most use to corrections departments, reports of accidents or injuries must contain all the necessary information. The most common piece of missing information at present pertains to consequences: how many days was the inmate off work or other assignment due to the injury? Most corrections departments should be able to produce Measures 6a and 6b now for work-related injuries, assuming they annually fulfill their reporting obligations to OSHA. Probably no corrections department presently has data

adequate to construct Measures 6a and 6b for all accidents and injuries occurring in prison. Added work will probably need to be done to bring accident/injury records up to some acceptable level of completeness before Measure 6a and 6b for recreational and other miscellaneous injuries will be meaningful. ("Miscellaneous" injuries falls, catching fingers or hands in cell doors, etc.).

USING THESE MEASURES

Measures 6a and 6b can be used to compare facilities to each other, or facilities over time. In addition, these measures can be compared to non-prison data. In general, prisoners should experience no more accidents or injuries than people outside prison. Measures 6a and 6b, calculated separately for work related accidents and injuries, can be compared to OSHA information* to answer the question: "Do inmates working in prison industries or other prison jobs have as few or fewer work-related injuries, with similar or different consequences as a private sector worker performing similar tasks?" Similar comparisons of Measures 6a and 6b for non-work injuries and accidents can be made to National Center for Health Statistics data.** Exhibits 3-3 and 3-4 illustrate comparisons of

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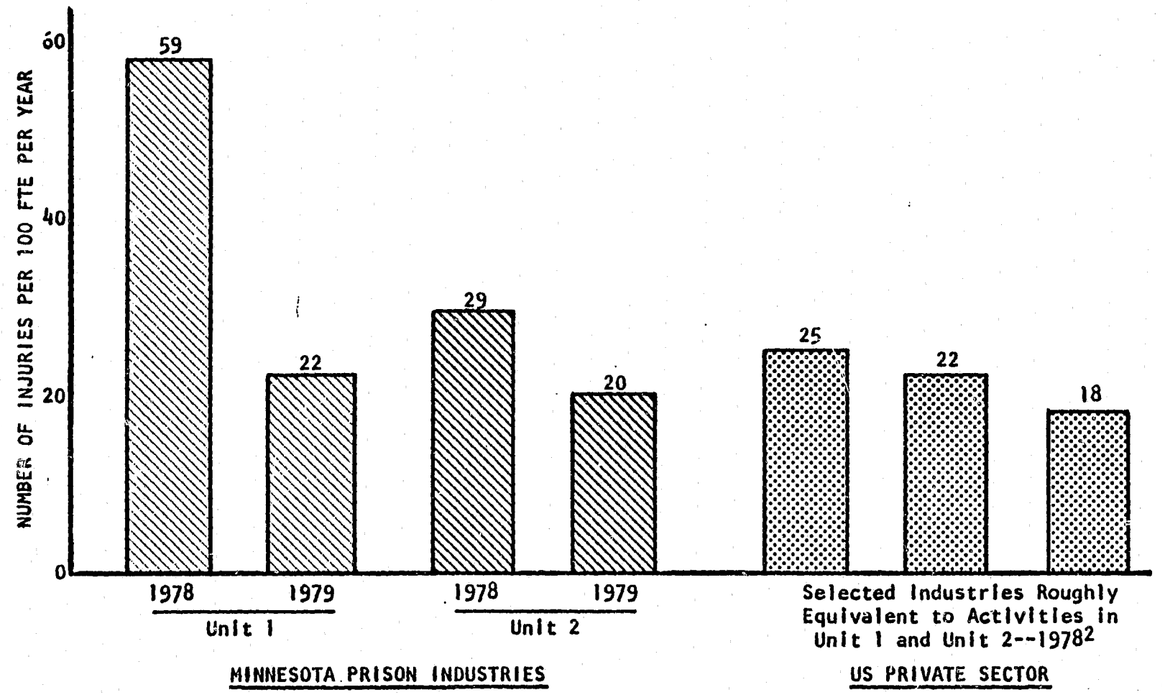
* Bureau of Labor Statistics, Report 586, Occupational Injuries and Illness in 1980, U.S. Department of Labor, Table 1. This report, issued in March each year, reports injury and illness rates for over 400 industries, with a 15-month time lag (March, 1980 report gives statistics for 1978 injuries and illnesses). The report can be requested free of charge from the Department of Labor, Bureau of Labor Statististics, Washington, D.C. 20212. State health or labor departments and university libraries will probably have copies.

** National Center for Health Statistics, Department of Health and Human Services, Series 10, Current Estimates from the Health Interview Survey, reports injury and accident rates from several non-work causes. Published every year, providing data collected during the previous year (1980 report provides 1979 data). The report can be requested free of charge from the National Center for Health Statistics, Department of Health Services. 3700 East-west Highway, Hyattsville, Md. 20782. State health departments and university libraries will most likely have copies.

Exhibit 3-3
(Measure 6a)

FREQUENCY OF SAFETY FAILURES: PRISON INDUSTRIES COMPARED TO PRIVATE SECTOR[1]



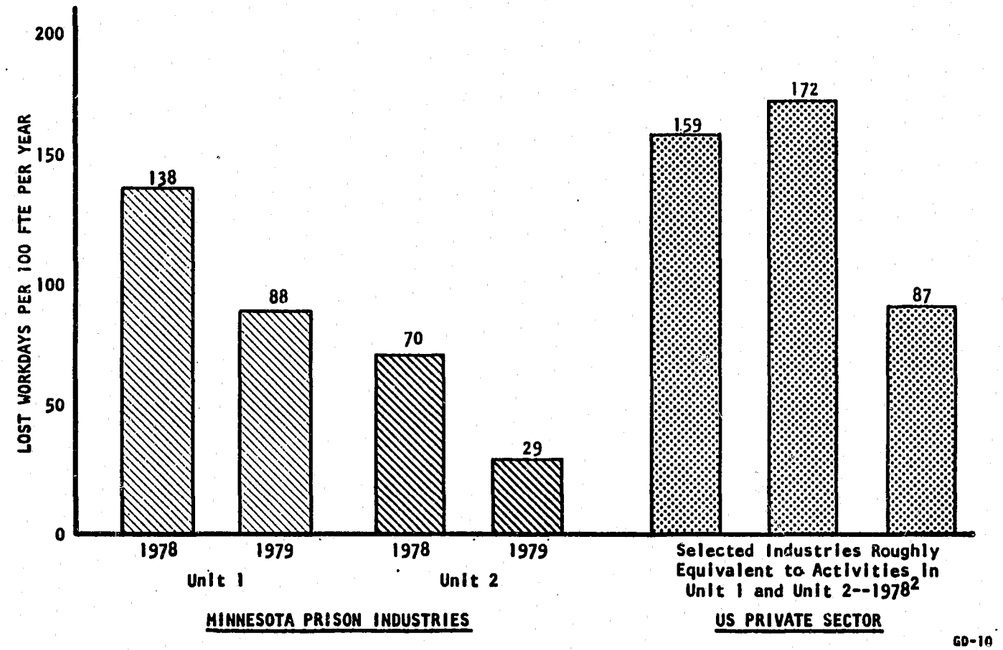
1. Calculated using the BLS-OSHA definitions of reportable injuries and the BLS formula: number of injuries divided by number of hours worked in year, multiplied by 200,000. An injury "counts" if it results in medical attention beyond first aid, loss of consciousness, or loss of work days beyond the day of the accident.

2. The first column of private sector industry resembles work activities in Unit 1. The other two columns resemble work activities in Unit 2. A department should select private sector parellels to each shop or activity where inmates work.

Sources: Minnesota: data collected from prison industries. Private sector: BLS Report 586, Occupational Injuries and Illnesses in 1978, U.S. Department of Labor.

Exhibit 3-4
(Measure 6b)

SERIOUSNESS OF SAFETY FAILURES: WORK-LOSS DAYS IN PRISON AND COMPARABLE PRIVATE SECTOR INDUSTRIES[1]



1. Calculated using the BLS-OSHA definition of work-loss injuries and the BLS formula: number of work-loss days divided by number of hours worked in year, multiplied by 200,000. An injury "counts" as a work-loss injury if it results in time lost from work beyond the day the injury occurred. Each day thereafter until return to equivalent work counts as a work-loss day.

2. The first column of private sector industry resembles work activities in Unit 1. The other two columns resemble work activities in Unit 2. A department should select private sector parellels to each shop or activity where inmates work.

Sources: Minnesota: data collected from prison industries. Private sector: BLS Report 586, Occupational Injuries and Illnesses in 1978, U.S. Department of Labor.

work-related injuries in some Minnesota facilities with rates in comparable activities in the private sector. OSHA annually publishes injury and work-loss-day information for over 400 categories of work activity. Most prison work activities can be matched with OSHA work categories. These comparisons could then provide corrections departments with performance levels to equal or better in the area of inmate safety.

DATA COST AND QUALITY

If someone (safety officer, nurse, etc.) keeps a routine log of accidents and their consequences (days lost), annual compilation of these data will take about one day for each 1000 average population. Analysis time would be one half to 1 day, total, if either the log or the pertinent information on the accident report is computerized. If data are neither computerized nor logged, but accident reports are routinely and consistently filled out and assembled in one place (so no one has to go to individual inmate medical files to retrieve them), it will take about 3 days of analysis time per 1000 average population. If neither computerization, log, nor single storage space for reports exists, the first effort should focus on bringing recording activities up to one of these levels. Data collection would be prohibitively expensive if searches of individual medical jackets are necessary.

Much data will probably be missing or incomplete at present. Recreational and other non-work injuries were frequently missing in the system we looked at. Also, the medical person filling out the initial report often did not enter the number of sick days granted to the inmate; sometimes inmates received additional sick days after the first diagnosis, and these almost never appeared on the official record. Therefore, if a corrections department uses Measures 6a and 6b for non-work injuries, some

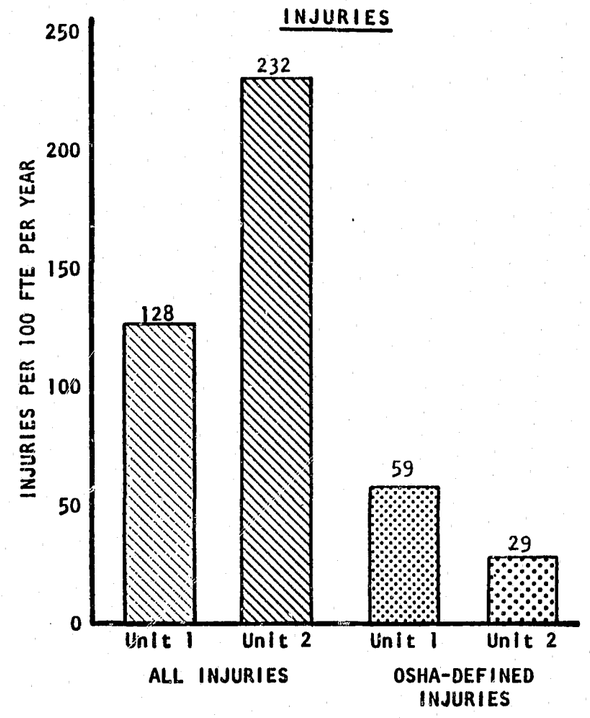
improvement in record-keeping will probably be needed.

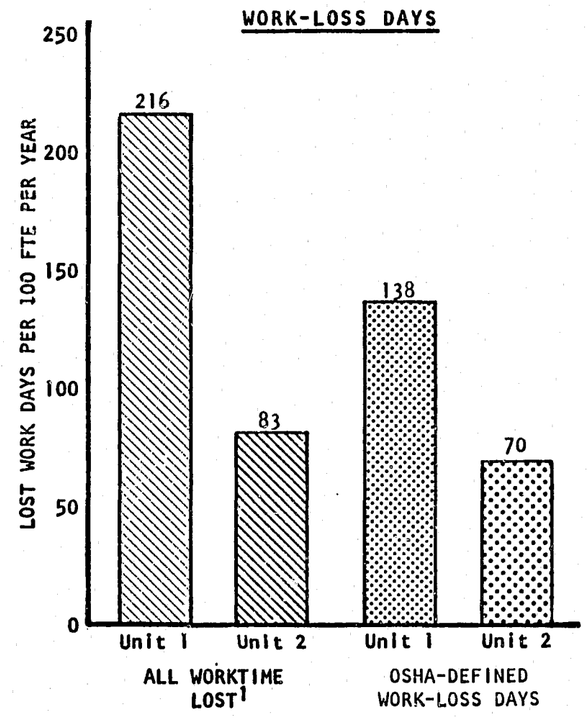
ALTERNATIVES

Departments may also want to compile data on the number of accidents and injuries not severe enough to qualify within the OSHA definition of "injury" or "work-loss-day," but which still pose significant management or medical problems in the prison setting. For instance, we found in Minnesota that, depending on the year and facility, 55 to 87 percent of all accidents and injuries that received medical attention did not qualify as "OSHA injuries." These injuries required only simple first aid (lacerations, foreign bodies in eyes), yet they took considerable medical staff time and each resulted in at least 1-2 hours time lost from work. There were also a large number of injuries that only caused the inmate to lose a single day of work (the day of the injury). This means that a significant proportion of work time may be lost to prison industries in "same-day" injuries. Therefore, we suggest that a corrections department consider including in the data system the total number of work-related injuries that require any medical attention, and the amount of time the inmate loses from work each time an injury occurs. The data in Exhibit 3-5 illustrate the differences between these more inclusive variations and Measures 6a and 6b. The differences in Exhibit 3-5 indicate that a corrections department will likely care about the time loss and associated management problems from minor but high frequency injuries.

Exhibit 3-5

COMPARISON OF ALL INJURIES AND ALL LOST WORK TIME TO OSHA-DEFINED INJURIES AND WORK-LOSS DAYS





GD-11a

1. All hours lost from work due to injury were summed and the total divided by eight to produce "days" of lost work time.

Source: Data from 1978 prison industries injury records and infirmary logs.

MEASURE 7: SANITATION

7A: NUMBER OF CLEANLINESS DEFICIENCIES / TOTAL POSSIBLE DEFICIENCIES

7B: NUMBER IS SERIOUS HEALTH HAZARDS PRESENT / TOTAL POSSIBLE SERIOUS HEALTH HAZARDS

DESCRIPTION

Measure 7a reflects a general concern for cleanliness and sanitary living conditions. It sums the number of deficiencies received during a sanitation inspection to provide an overall score for a facility. This procedure assumes that each deficiency has about the same importance. A corrections agency could refine Measure 7a by weighting each deficiency according to expert judgment of their relative importance. The forms used by the Minnesota and North Carolina health departments (See Appendix B) do this type of weighting. However, in testing the appropriateness of Measure 7a, we used both the number of violations and a scoring system which weighted each violation using health department judgments of seriousness. Both procedures yielded the same rank order of facilities. We therefore suggest the simpler procedure of counting number of violations for Measure 7a, especially as Measure 7b will pinpoint those facilities with serious health hazards.

Measures 7a and 7b rely on standardized inspection forms that provide a checklist of possible deficiencies. An inspector gives a facility a score based on conditions which do or do not meet inspection standards. Measure 7b focuses on deficiencies defined as serious health hazards such as storing or handling food in ways that permit spoilage or contamination, storing or using poisonous or other hazardous materials inappropriately,

or improper disposal of sewage and other liquid waste. The state health department can readily inform corrections officials which conditions are considered serious health hazards; these conditions vary quite little among states.* Appendix B contains inspection forms used by the health departments of Minnesota and North Carolina, and the sanitation components of the North Carolina Department of Corrections inspection form. Comparing these forms reveals a great deal of similarity in content and assessment of the seriousness of each deficiency. Corrections departments will need to set their own level of expectation for Measure 7a as to how many cleanliness deficiencies constitute unacceptable performance. For Measure 7b, none of the serious health hazards comprising Measure 7b should exist, or be allowed to continue if discovered. The goal for Measure 7b should be "zero."

POTENTIAL DATA SOURCES

Data for Measures 7a and 7b will come from inspections by qualified inspectors employed either by state health departments or corrections departments. Some corrections departments already have their own sanitation inspectors and inspection standards. Some states regularly have state health department sanitarians inspect state correctional facilities, and receive copies of the written reports showing which deficiencies exist. These states can use data from state health department inspections to

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* Serious health hazards are those scored "5" on the Minnesota Health Department form or "6" on the North Carolina Health Department form. These comprise Measure 7b. All other potential deficiencies are part of Measure 7a.

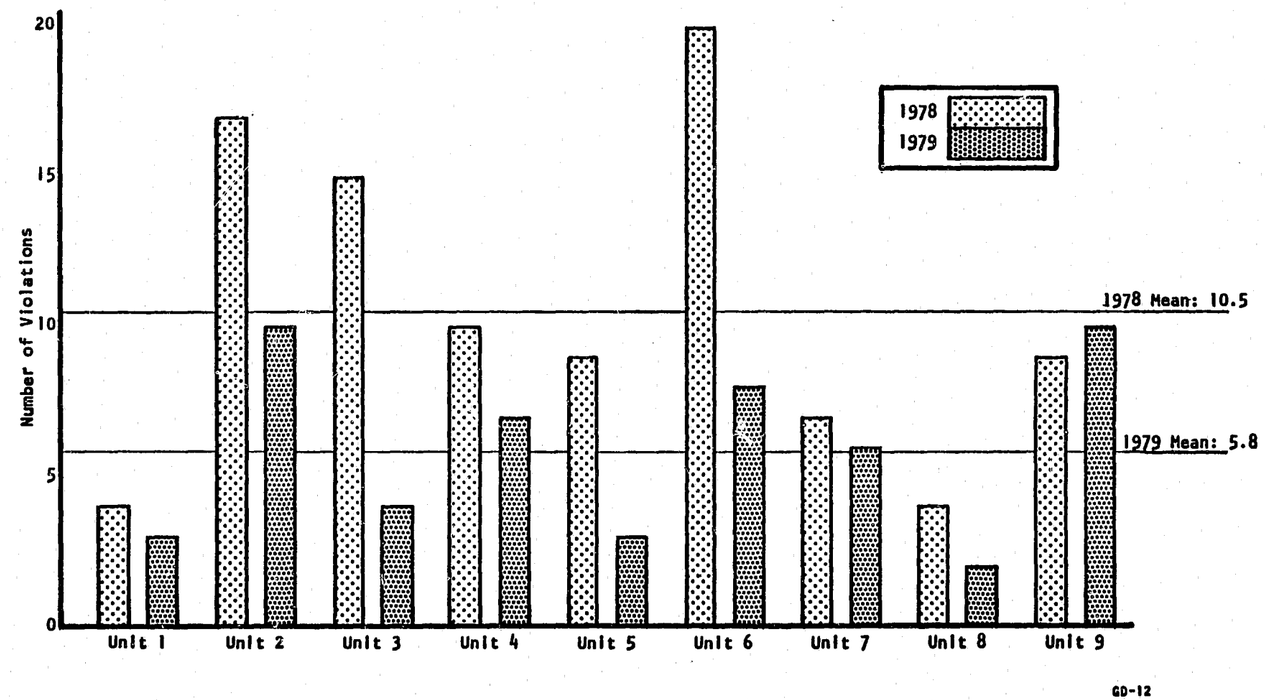
construct Measures 7a and 7b. Some departments do both, some departments neither. To construct Measures 7a and 7b, at least one source of inspection results, health department or corrections department, will be necessary. If a state presently has no routine inspection program, an arrangement with the state health department to do annual inspections will probably work best. This arrangement will save a corrections department from needing to find or train qualified inspectors; health departments train their sanitarians extensively to increase the consistency of ratings among sanitarians.

USING THESE MEASURES

The usual displays over time and across facilities will identify changes in facility compliance with health standards. Changes in Measures 7a and 7b over time are particularly relevant because sanitation and health hazard deficiencies should be construed as orders to improve facility maintenance, and in the case of serious health hazards, to adequately protect the health of inmates. Once drawn to a superintendent's attention, we would expect performance to improve for those conditions under management control. Because eliminating some health hazards will take capital expenditure, a corrections department may also want to use the inspection process to identify those facilities or parts of facilities where only renovation or replacement (capital investment) will eliminate unsanitary and unhealthful conditions. In North Carolina, corrections and health department inspectors used the inspection process to identify needed renovation or replacement even though the inspection forms do not explicitly cover them. Exhibit 3-6 illustrates a comparison of health inspection ratings (Measure 7a) given in 1978 to those given in 1979. As

Exhibit 3-6
(Measure 7a)

NORTH CAROLINA DIVISION OF PRISONS INSPECTION RESULTS:
TOTAL VIOLATIONS IN KITCHEN, DINING, LIVING, AND SEGREGATION AREAS



GD-12

EXHIBIT 3-7

PHYSICAL PLANT IMPROVEMENT NEEDS IN 35 NORTH CAROLINA FACILITIES [1]

Improvement Need	Number of facilities needing the improvement	
	1978	1979
Install central heating	1	2
Redo kitchen	6	4
Replace sewage system	3	2
Rebuild dormitory	1	0
Replace toilets/bathrooms[2]	9	10

1. 50 percent of the 35 facilities had at least one of the capital improvement needs shown in this table. 14 percent had two or more.

2. Changes in standards from porcelain to stainless steel commodes produced this high number of facilities needing to replace toilet fixtures.

SOURCE: North Carolina Corrections Department Inspection Reports, 1978 - 1979

the exhibit shows, health department inspectors did note marked improvement in cleanliness and sanitation from 1978 to 1979 in a number of facilities. Exhibit 3-7 demonstrates one way to use data collected during inspections to document the nature and extent of capital improvement needs related to sanitation and health.

It may also be appropriate to compare performance on Measures 7a and 7b to the performance of other community facilities serving large populations. The ratings of school, college or state hospital kitchen facilities could be compared to corrections facility ratings for cleanliness and serious health hazards. Most health departments use the same inspection forms for all these institutions, making comparisons possible. Corrections departments could get these comparative data from their state's health department if they wanted to make such comparisons to non-correctional operations.

DATA COST AND QUALITY

Costs of producing Measures 7a and 7b depend heavily on the present availability of inspection reports.

1. State health department inspections. If the state health department presently visits all corrections facilities at least annually and provides the corrections department with a written report of the inspection and its results, corrections will incur no additional costs for data collection. About two to four days of analyst time will suffice to produce Measures 7a and 7b for 25-30 facilities. Even if your corrections department has not assembled the written health department reports in a central place, the health department will have them filed centrally. An additional day spent in the health department's offices will supply the data

for Measures 7a and 7b. In North Carolina and Minnesota, we found it necessary to get health department data directly from the health department, since corrections officials did not have the various reports in one place.

If the state health department does not currently visit all corrections facilities at least annually (and some do not because such facilities may not legally be under their jurisdiction), the quickest and most reliable way to get data for Measures 7a and 7b is to negotiate with the health department to perform such inspections. Their sanitarians are trained for the job, and a corrections department would not have to hire and train its own inspector(s). This approach should not require any expenditure from the corrections department.

2. Corrections department inspections. If your department presently has inspection personnel who inspect each corrections facility at least annually using a standard format, the time needed to produce Measures 7a and 7b from corrections data will be the same as needed for health department inspections: 2-4 days of analysis time per 25-30 facilities. If the format chosen parallels the health department's, corrections results can be crossed-checked with health department results to determine the accuracy of corrections inspections.

3. No inspections done at present. If your department does not presently inspect each correctional facility for sanitation and cleanliness at least annually, you would be much better off arranging such inspections with the health department than developing the

internal capability for inspections yourselves. See the cost estimates above for health department inspections.

Using inspection data for performance measurement always poses the problem of consistency--will different inspectors, or the same inspector at different times, reliably give the same condition approximately the same rating? Training and monitoring inspectors can reduce consistency problems, but probably will never eliminate them. Departments should conduct periodic checks of a small sample of inspectors' ratings. If ratings seem inaccurate or inconsistent, additional training may be needed.*

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* In North Carolina, each geographical area has its own corrections department inspector and its own health department inspector. We compared the number of deficiencies given to 35 facilities in three geographical areas by the corrections and health inspectors. The corrections inspector was consistently lower than the health inspector in two of the three geographical areas, the three health inspectors were fairly consistent with each other, and the corrections inspector in the third geographical area gave ratings equivalent to the health inspector in that area. For sheer identification of health problems, the health department inspectors should probably be followed. However, both sets of ratings (health and corrections) produced identical rank orders of facilities--each set of ratings identified the same facility as the most in need of improvement, as the least in need, and so forth. So either set of ratings would serve to target facilities where the greatest effort to improve should occur.

MEASURE 8: FIRE SAFETY

8A: NUMBER OF FIRE-RELATED DEFICIENCIES / TOTAL POSSIBLE FIRE-RELATED DEFICIENCES

8B: NUMBER OF FIRES

DESCRIPTION

Measure 8a summarizes the fire risk present in a correctional facility. It summarizes the number of fire hazards found in an institution during a fire safety inspection, using a standardized list of risk factors as the basis of scoring. Corrections departments will need to review common fire inspection checklists (such as the example given in Appendix B, pp. B-10 ff.) with state or local fire marshals to select elements relevant to corrections facilities. Unfortunately, the usual fire inspection checklists have some drawbacks for corrections purposes: (1) many items have no relevance for prisons (e.g., exit doors being unlocked at all times); (2) many trivial violations can increase a facility's score on Measure 8a without necessarily reflecting higher fire risk; (3) such lists omit major contributors to fire danger in prisons (e.g., losing keys, not having a secure area where fire-endangered inmates can go). Corrections departments will therefore have to construct a relevant checklist using several sources for specific items. State and local fire marshals can help with this task.

An adequate fire risk checklist for corrections needs to include factors contributing to the risk of fire starts and the risk of fire spread and consequent damage to persons and property. Certain kinds of fires such as those attributable to arson, smoking, and ignition of hazardous materials may be controllable by more stringent supervision of flammable material storage, ac-

cess to flammable material and, for smoking-related fires, closer control over when and where smoking is allowed. Checklist items should reflect prison policy and prison practice regarding these factors associated with fire starts.

Most fire-prevention factors affect fire spread and consequent damage rather than preventing fires altogether. Checklist items should reflect the presence or absence of structural/physical plant and policy factors associated with fire spread. Structural factors include enclosed stairwells, adequate fire doors and sprinkler systems, and secure areas to which fire-threatened inmates can be transferred. Policy factors include housekeeping practices that eliminate trash and other flammable materials, written policies and procedures covering fire emergencies, actual practice of fire drill procedures (including movement of inmates), and extra sets of keys for emergency use.

Measure 8b counts the number of fires during a given time period. A department might report separately the number of fires it handled solely with corrections department personnel, and those for which it required outside assistance from local fire departments. We found in one Minnesota facility that only one fire out of the 28 fires occurring during the first six months of 1979 required outside assistance to extinguish, suggesting that most fires are small and readily contained. Separate counts of fires by controllability is another valuable way to use Measure 8b. The basic objective with this separation is to identify conditions whose improvement might prevent future fires or reduce damage from fire spread. Thus, the categories of interest are "fires which better inspection and correction of deficiencies might have prevented," "fires which better inspection and correction of deficiencies might have contained to lesser amounts of damage," and "other fires." One would use the data from the first two types to upgrade conditions that otherwise might cause future fires.

POTENTIAL DATA SOURCES

Most corrections departments probably will not currently have the data to construct Measure 8a. State or local fire marshals accustomed to conducting inspections of residential facilities should be invited to inspect corrections facilities on a regular basis. Even in departments where this now happens, written reports of inspection findings are usually in narrative form and follow no set pattern; scoring the reports or deriving a measure such as Measure 8a from them is thus impossible. Corrections departments and state fire marshals should work out a consistent reporting format relevant to correctional facilities. If fire marshals then conduct inspections and corrections officials construct Measure 8a from their reports, corrections managers could put together a coherent picture of progress toward meeting fire safety goals.

Most corrections departments will also have to change some recording practices for Measure 8b. We commonly found that no central tally existed of the number of fires in a facility or system as a whole. Thus departments had no reading on increases or decreases in fires at particular facilities or in the system as a whole or about the frequency of fires ensuing from controllable causes. Data on the number of fires should be reported from each facility quarterly or annually to central corrections officials who would then construct Measure 8b for the department as a whole. Ideally these reports would also contain information about who put out the fire (corrections or local fire departments) and the causes of fires (controllable and not controllable).

USING THESE MEASURES

Measure 8a should be displayed and used in the same way as Measures 7a and 7b. Improvements in these measures over time indicate that managers have responded appropriately to deficiencies; continued high numbers of deficiencies indicate unresponsiveness to fire risk. Departments might segment Measure 8a into those deficiencies an agency can remedy relatively easily (such as repairing or replacing fire alarms or fire extinguishers, or instituting fire drill procedures) versus deficiencies whose reduction requires significant capital outlay (such as sprinkler systems and upgrading exit doors). The more management-controllable risks should be eliminated quickly, whereas deficiencies requiring investment to correct will probably require a much longer time frame (although they are probably more important for reducing fire loss).

Exhibit 3-8 displays Measure 8b separately by fire cause as recommended above. The data cover one facility during a six-month period. (Exhibit 3-8 also contains information about the consequences of fires, both property damage and injuries. We discuss these additional data under "Alternatives" below.) Exhibit 3-8 shows a significant proportion of fires due to arson, smoking, and improper disposal of hazardous materials. At least some of these fires might reasonably have been prevented by better enforcement of fire safety precautions and contol of flammable materials. The supplemental information on fire cost suggests that all fires during the reporting period were small and had few serious consequences. Managers could use data like these to target fire hazard situations amenable to control, and take steps appropriate to reduce fire risk in those situations.

EXHIBIT 3-8

FACILITY FIRE INCIDENCE SIX-MONTHS SUMMARY
(Measure 8b arrayed using supplemental information on causes and consequences)

Fire Cause	Number of Fires (Measure 8b)	Dollar Loss from all Fires (Measure 8c)	Injuries (Measure 8d)
Arson	14	$ 796	1
Smoking	5	$ 140	0
Improper Disposal of Hazardous Materials	4	$ 15	0
Miscellaneous	5	$ 198	1
RATE PER 1000	28	$1,156	2[1]

1. Abrasions resulting from assisting with fighting a fire

SOURCE: Minnesota Department of Corrections Fire Safety Records, January - June, 1979

DATA COST AND QUALITY

Cost of inspections are generally borne by state or local fire marshals, although the superintendent or assistant superintendent of each facility would need to spend time with the inspector during each tour of his institution to learn what hazards exist and how he might correct them. The costs of complying with fire safety standards cannot rightly be included in the costs of obtaining Measure 8a. These inspection data have the same problems of consistency discussed under Measures 7a and 7b. However, deciding that a fire extinguisher works or not, or that stairwells are enclosed, are easier judgments to make than whether or not a dormitory is "clean enough." Therefore we expect data for Measure 8a, based on fire marshal inspections, to be more consistent and reliable than those for Measure 7a.

We have included Measure 8a even though fire risk is not technically an outcome. Our advisory group felt strongly that a measure based on fires alone was too "after-the-fact." They wanted information that could direct corrective action to prevent fires before they happened. Managers can use feedback on deficiencies to eliminate fire hazards without waiting for fires to occur. Because hazardous conditions are to some extent under management control, performance feedback in this area could significantly affect the safety of a facility.

ALTERNATIVES

A department may also want to estimate the consequences of fires in terms of property damage to state property and personal property (Measure 8c) and injuries (Measure 8d). Exhibit 3-8 presented data based on these distinctions. A fire or safety officer in each facility would need to estimate these consequences for each fire. The challenge here lies in estimating

the dollar loss for each fire in much the same way that insurance investigators make these estimates. If a department cannot hire or borrow a person trained to make these estimates, some in-service training for department personnel might be necessary. In the two departments we worked with, only one facility had information on dollar loss and injuries for all fires. Appendix B gives the log format that facility used to record fire consequences. We do not recommend trying to convert dollar loss and injury statistics into rates (e.g., "dollar loss per 1000 inmates"), just as we left Measure 8b as the simple number of fires rather than "fires per 1000 average population." Damages from fires fluctuate too extremely to produce meaningful rates unless the population base is very large (such as a city). For instance, in fiscal year 1978, one Minnesota facility has 54 fires. One of these fires involved approximately $13,000 in property damage. The total property damage for all fires was approximately $17,000. Average fire damage excluding the large fire is $75 per fire. Average fire damage including the large fire is $315 per fire. The latter figure distorts the size of the usual fire, making them appear more costly than they really are. Proper caution should therefore be exercised in summarizing fire consequences. These alternative measures will prove most useful for targeting areas for improvement rather than serving as overall indicators of effectiveness.

CHAPTER FOUR

MEASURE OF INMATE HEALTH

MEASURE 9: INMATE PHYSICAL HEALTH STATUS

$$9A: \frac{\text{HOSPITALIZATIONS}}{\text{AVERAGE POPULATION}} \times 100$$

$$9B: \frac{\text{SICK DAYS}}{\text{AVERAGE POPULATION}}$$

$$9C: \frac{\text{DEATHS FROM NATURAL CAUSES}}{\text{AVERAGE POPULATION}} \times 1000$$

DESCRIPTION

Measures 9a, 9b and 9c assess the physical health status of the inmate population. The quality of medical care available to inmates will obviously affect the overall health status of the inmate population, but is not the only factor determining the population's overall healthiness. Health status reflects many aspects of prison life, including diet, recreational opportunities, activity level, living conditions, and the health status inmates bring with them on admission. These measures are important for several reasons. First, they address the most general level of concern with inmate health--regardless of cause, how healthy or unhealthy is the population? Second, they are commonly accepted indicators of health status for any population. Third, because they <u>are</u> commonly accepted, data for non-incarcerated populations are normally collected by other agencies and readily available for making comparisons to inmate health. This means that corrections departments can assess whether inmates have more or fewer health problems than non-incarcerated people with similar characteristics. Finally, these measures are reasonably easy for corrections departments to generate, since the relatively simple procedure of keeping logs of relevant information will suffice. Prison records are likely to contain all the information for Measures 9a, 9b and 9c; one would therefore not need to search inmate medical files or physically examine inmates.

Measures derived from physical examinations and changes in the physical condition of individual inmates are discussed under "Alternatives." We place them there because they cost significantly more to produce than Measures 9a, 9b and 9c. However, these alternative measures of change in inmate conditions during incarceration directly reflect a major concern of corrections managers -- whether inmate health deteriorates in prison. Even the data from entry physicals without follow-up exams can provide important baseline data about inmate health if collected consistently and summarized judiciously. Corrections officials willing to invest the resources necessary to obtain this information should consider gathering the data for Measures 9d and 9e, as described below.

POTENTIAL DATA SOURCES

Many corrections departments already maintain manual logs or monthly summaries of infirmary or hospital activities from which to compute Measures 9a, 9b and 9c. Some departments have already computerized these records. The information most often missing, in our experience, was the number of sick days, whether those were actually spent in bed, or the inmate did not have to fulfill work or other assignments due to medical problems. Prison records would need to include this information if a department wants to use

all the measures of inmate physical health status.

USING THESE MEASURES

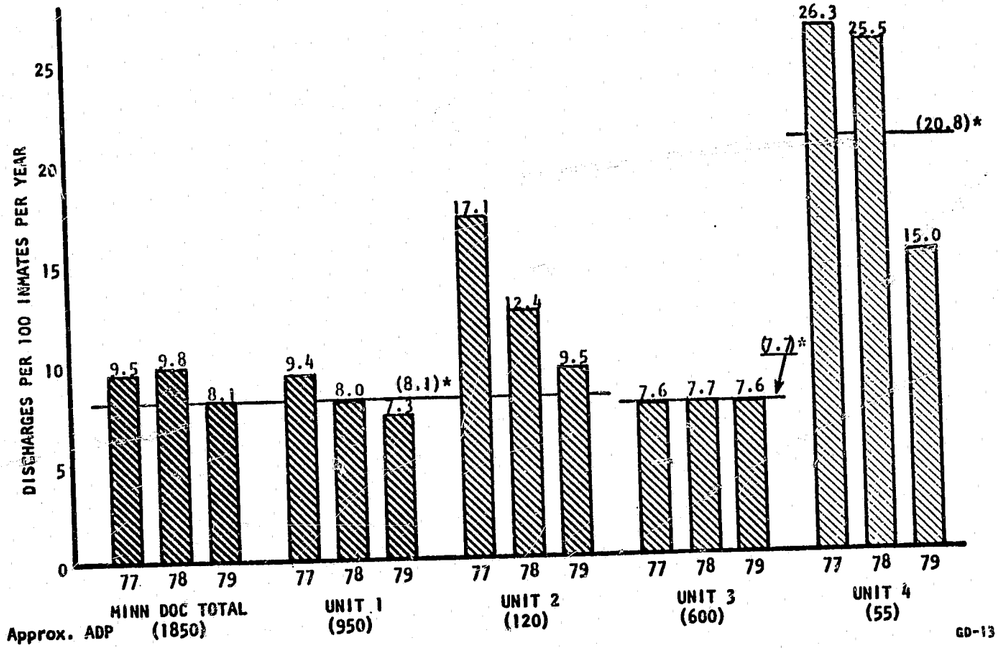
Measures 9a, 9b and 9c should be analyzed separately by facility to highlight any differences that might suggest where to focus improvement efforts. Comparing facilities to each other at one time period, and comparing each facility to its own past performance should reveal performance problems or improvements. These uses of Measures 9a, 9b and 9c parallel the uses of many other measures already presented. Exhibits 4-1 and 4-2 give examples of these comparisons for Measures 9a and 9b, for four Minnesota facilities over two or three years of measurement.

In addition to the usual between-facility and over-time comparisons, these measures of physical health status have non-prison parallels that corrections officials can use as comparisons for their own performance. These comparisons have become more important because recent court judgments have established inmates' rights to adequate medical care. The National Center for Health Statistics annually publishes health statistics for the non-incarcerated population, calculated separately for different age-sex groups. Using the comparisons to prison populations,* corrections managers can identify the progress of their facilities toward maintaining a prison population as healthy as comparable individuals outside of prison. Exhibits 4-1, 4-2 and 4-3 also illustrate these comparisons. The horizontal lines in Exhibits

*The National Center for Health Statistics, a part of the Public Health Service in the Department of Health and Social Services (formerly HEW), publishes several series of national health statistics every year. Comparisons for Measure 9a can be found in Series 13, Short-stay Hospital Utilization; comparisons for Measure 9b can be found in Series 10, Current Estimates from the National Health Interview. Both publications report data for the preceding whole year, so 1978 publications would contain 1977 data. Available from NCHS, Department of Health and Human Services, 3700 East-West Highway, Hyattsville, Maryland 20782.

Exhibit 4-1
(Measure 9a)

HOSPITALIZATIONS

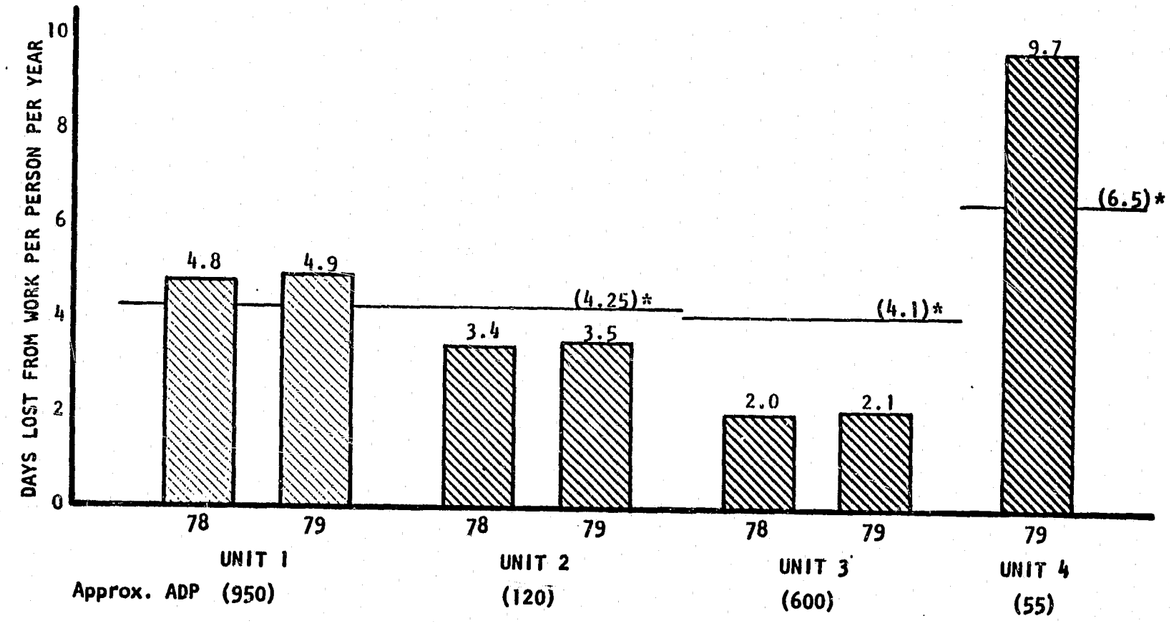


* Horizontal lines designate U.S. average for approximate age-sex group and provide non-prison comparisons for corrections performance. Data for them come from National Center for Health Statistics, Public Health Service, DHEW, Series 13, #41, Short-Stay Hospital Utilization, 1977.

Source: Prison data obtained from records at Minnesota corrections facilities.

Exhibit 4-2
(Measure 9b)

DAYS LOST DUE TO HEALTH REASONS

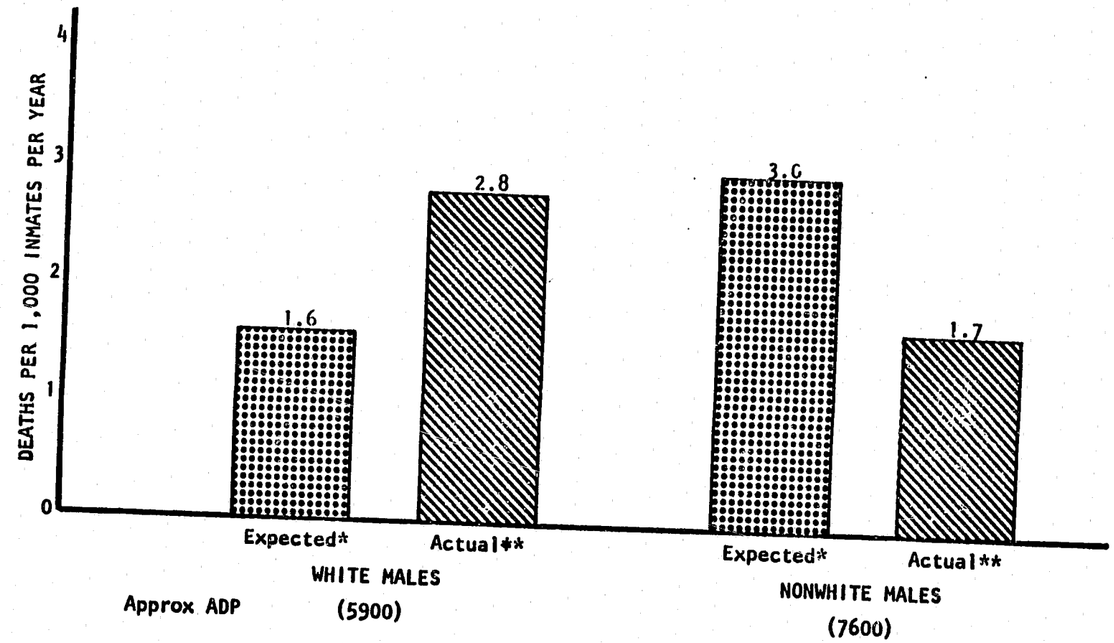


* Horizontal lines designate U.S. average for approximate age-sex group and provide non-prison comparisons for corrections performance. Data for them come from National Center for Health Statistics, Public Health Service, DHEW, Series 10, #126, Current Estimates from the Health Interview Survey, 1977--work-loss days for U.S. Males; days of bed disability for U.S. females.

Source: Prison data obtained from records at Minnesota corrections facilities.

Exhibit 4-3
(Measure 9c)

DEATHS IN PRISON



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* Based on age-sex-race specific rates for non-incarcerated North Carolina population, Division of Vital Statistics, North Carolina Health Department.

** Based on actual deaths, averaged over the years 1976, 1977, 1978. White male deaths for those years totaled 50; non-white male deaths for those years totaled 39.

4-1 and 4-2 represent national averages for the non-incarcerated population. Exhibit 4-1 shows that two Minnesota facilities are at or below the national average for hospitalizations (Measure 9a) and two facilities exceed the national average substantially during the three years covered.

Exhibit 4-2 (of Measure 9b in Minnesota) shows that the inmates of one prison (Unit 4) experience significantly more days of sickness than similar non-incarcerated people. Medical managers ought to inquire why this happens, and take steps to improve the health of this facility's inmates. Two other facilities appear more healthy than their non-prison counterparts.

Exhibit 4-3 (of Measure 9c in North Carolina) raises the interesting question of why imprisonment appears to produce higher-than-average white death rates but lower-than-average nonwhite death rates. The "expected" rates have already been adjusted to account for the life expectancies of males of the same age and race as those in North Carolina prisons. This pattern is consistent over the three years of data available in North Carolina. If the pattern holds, prison officials might want to explore why this happens.

DATA COST AND QUALITY

Data for constructing Measures 9a, 9b and 9c require record-keeping at the facility level in the form of logs. Some corrections departments may do this now, but our experience indicates that some significant portion of the data necessary for these measures will not exist, or will not lend itself to easy retrieval. Where departments do not already keep logs of appropriate data, they will have to begin if they want Measures 9a, 9b and 9c. Time estimates for collecting data for these measures are:

Measure 9a: 1 hour per year per facility if the facility keeps a log

of hospitalizations and how long inmates stayed in the hospital. The cost of keeping the log itself, and of doing a monthly or quarterly tally, depend on the facility's population. As a rough estimate, it should take about two minutes per entry to record a hospitalization in the log book, and a maximum of 1 hour per month, assuming about 4 hospitalizations per month per 500 population, to type up monthly summaries of hospitalization activity.

Measure 9b: One day per year per facility if (a) the facility keeps an infirmary log and tallies it monthly, and/or (b) the written record of the daily count includes the number of people considered sick that day and the facility saves the daily count records. Most corrections departments have some official way of designating that an inmate is ill or excused from work or other assignment for medical reasons. However they label it ("sick," "lay-in," "medical idle" are some commonly used terms), the daily count records should contain the number of inmates in this status every day. The days inmates spend in an infirmary or hospital should also be counted. If these data do not already appear in the count of "sick days," they should be included before calculating the final value of Measure 9b. If facilities do neither (a) or (b), they will have to begin doing one or the other. Including the number of inmates on sick status in the daily count records appears to be the most reliable method. Someone will need to keep all the daily counts, tally them, and report them to a central office manager.

If a department wants to compare its record on sick days to statistics for the non-prison population, it should keep separate counts for days on which illness confines inmates to their bed or cell versus days on which a medical condition restricts an inmate's normal activities (no work or school), but the inmate is not sick enough to need bed rest.

Measure 9c: Facilities should log each death, along with its cause and the age, sex, and race of the deceased, using a standard format provided by the central corrections office. They should send these death reports to the central office each year. Surprisingly, we found little reliable written information on deaths in either system we worked with. Minnesota staff knew who had died in prison, and the surrounding circumstances, but we found no single information source for the whole system. North Carolina's computerized information system could report if someone was released from corrections custody by death, but not whether that person was incarcerated, on parole, or on escape at the time of death, nor what caused the death (homicide, suicide, or natural causes). Only in the last two years has the central office asked individual facilities to report all deaths, with cause and other identifying characteristics, to the central office. They had no way to verify that facilities had indeed sent reports of all deaths. Because of these data problems, we spent two days of staff time analyzing one computer run to verify the manual records of in-prison deaths and calculate in-prison death rates for three years. Logs of in-prison deaths, including information on the age, race, and sex of deceased (to make comparisons to non-prison death rates possible), would have cut this time to two hours of staff time per year for the entire system, without having to use the computer. Measure 9c produces a "death rate" by calculating the number of deaths, on the average, for every 1000 inmates. This rate will probably only be reliable for large systems with a substantial number of deaths (North Carolina had about 50 per year). Even so, it should be calculated as a three-year running average to adjust for fluctuations from year to year.

Departments should also tally the number of deaths, by cause, for each year. For small departments this tally would substitute for Measure 9c; in

large departments it would provide basic information whereas Measure 9c would allow comparisons to non-prison death rates. Assuming a stable prison population, these annual numbers will provide meaningful year-to-year comparisons. If prison population rises, as it almost certainly will, annual fluctations in sheer numbers of deaths should be interpreted with caution.

When corrections departments or individual facilities collect appropriate data for Measures 9a, 9b and 9c, the data themselves appear reasonably complete and accurate. Problems arose for us most often with respect to Measure 9b (sick days). Recording of sick days was sometimes haphazard, and often facilities did not save these data even when they produced them on a daily basis for institution management purposes. Regular use of this measure would require more reliable data storage.

ALTERNATIVES

We recommended Measures 9a, 9b and 9c as primary measures of inmate physical health status because they are relatively cheap and easy to collect. In this section we discuss two measures that compare inmate physical condition at intake to that existing after some time in prison. These measures rely on physical examinations of individual inmates. A department interested in improving inmate health should collect both of these measures (Measures 9d and 9e) to add depth of understanding to the population data. Measures 9d and 9e are highly desirable for assessing the specific conditions which cause the greatest inmate health problems. However, they are quite expensive to generate, and are relatively more difficult to interpret because data based on physician examinations and laboratory tests will always have more consistency and reliability problems than Measures 9a, 9b, and 9c. Some departments will want to collect these measures despite

their cost, because they reveal actual changes in physical condition which occur in prison. If these measures indicate that inmate health deteriorates in prison, corrections managers will want to take steps to improve this situation.

MEASURE 9D: PERCENT OF INMATES WHOSE SCORES ON AN INDEX OF HEALTH SCREENING FACTORS IMPROVED OR WORSENED BY ONE YEAR AFTER ADMISSION

Exhibit 4-4 gives one possible index to use in constructing Measure 9d, based on laboratory analyses of blood and urine samples plus information on wieght, blood pressure and smoking behavior. Medical personnel gather these data at intake and again after inmates have spent some time in prison. The results of the two examinations are compared to produce Measure 9d, which gives the change in health over time, as indicated by the screening factors.

Abnormal readings on these factors alert a physician to potential health problems. Health screening factors do not constitute positive identification of disease. They are suggestive rather than definitive. They should be interpreted in conjunction with the results of Measure 9e to provide the most meaningful information on inmate health. However, because laboratory tests provide the basic data for Measure 9d, consistency and reliability should be greater than examination data. We therefore recommend both types of measure.

MEASURE 9E: PERCENT OF INMATES WITH INCREASED OR DECREASED NUMBERS OF ABNORMAL CONDITIONS OF BODY SYSTEMS BY ONE YEAR AFTER ADMISSION

For Measure 9e, an examining physician detects and records abnormalities during direct physical examination of inmates. Physical conditions count as abnormalities only if they require present medical attention or

Exhibit 4-4

SUGGESTED INDEX OF HEALTH SCREENING FACTORS
(MEASURE 9d)

The index has a range of 0 to 14, and should be scored using the following specifications:

smoking behavior	- 0 = none 1 = 1 pack or less per day 2 = more than 1 pack per day
obesity	- 0 = normal weight 1 = between 10% and 29% overweight or 10% or more underweight 2 = more than 30% overweight
hypertension	- 0 = normal 1 = borderline 2 = definite
tuberculosis reactivity	- 0 = no 1 = yes
venereal disease	- 0 = no 1 = yes
blood and urine glucose (possible diabetes)	- 0 = blood and urine normal 1 = either blood or urine abnormal
hematocrit (or hemoglobin) levels (anemia)	- 0 = normal 1 = less than 35% hematocrit
liver function (hepatitis, alcohol-related liver damage)	- 0 = blood and urine normal 1 = blood B.U.N. or blood or urine bilirubin abnormal
serum cholesterol	- 0 = normal range 1 = above 90th percentile of serum cholesterol readings (approximately 270 mg%)

monitoring for future recurrance (e.g., a history of mental illness requires monitoring, even though the inmate has no present symptoms). The body systems assessed by this measure are regularly listed on prison medical examination forms, and include: Head, face, neck and scalp; nose; sinuses; mouth and throat (including dental if physician notes it); ears; eyes; lungs and chest; heart' vascular; abdomen and viscera; anus and rectum; endocrine; genito-urinary; upper and lower extremities; spine and other musculo-skeletal; skin and lymphatics; neurological; psychiatric. (This is North Carolina's list of body systems. Other states have somewhat different lists).

Both alternative measures (9d and 9e) require examination of individual inmates at two points in time -- at admission, and again at a subsequent time such as one year after admission. Some proportion of inmates will not stay in prison one year, but these short-term inmates will also be less likely to experience prison-induced changes in their health. Our advisors felt that prisons should hold themselves accountable most for the health status of the inmates committed to their care for longer periods of time, hence the one year reexamination period.*

The first examination records the inmate's health status upon admission, for which the prison system has no responsibility. If inmates are less healthy than the general public at admission, and departments do not detect this through admission examinations, any health problems detected on later examinations may be attributed to prison conditions rather than to inmate

* The ACA recommends complete physical examinations for long-term inmates every two years (annually for inmates over 50). If a department complies with this recommendation, changes in physical condition from examination to examination should be compared using Measures 9d and 9e to reveal patterns of improvement or deterioration in inmate health with increasing time in prison.

health at intake. Doing only admission examinations (the current practice in most corrections departments) obviously cannot reveal what effects prison living has on inmate health. Most corrections departments do not now collect data adequate to calculate measures 9e and 9f. There are three major issues of data availability and quality with these measures:

(1) FOLLOW-UP EXAMS: If an agency does not now do any routine follow-up examinations (e.g., annually or every-2-years), obtaining follow-up data will require substantial additoinal expense. Examinations for 200 inmates in North Carolina required approximately 23 medical staff days, 5 days for clerical and coordinating tasks, and transportation costs to get inmates to exam locations.

(2) RECORDING AND SUMMARIZING EXAM RESULTS: You need not re-examine all inmates. For purposes of these measures, samples of 200-300 inmates will suffice. A sample of this size will give a rough estimate of changes in physical condition among inmates for the corrections system as a whole. It is not large enough to permit comparisons among facilities. Even with pre-coded exam forms, recording of exam results appears quite unreliable.* In their present state, therefore, physical examination results require a substantial amount of time to code for use as performance feedback (e.g., about 4 days/100 exams), since the analyst must read the whole written record to determine the actual findings. Coding and analysis might take as much as

*For instance, the nurse may discover when taking the medical history that an inmate takes medication to control epilepsy, but the physician does not record an abnormality in the neurological body system. Or the handwritten notes show the physician ordered a special diet and insulin for an inmate's diabetes, but did not check off an abnormality in the endocrine system. These discrepancies happened frequently in our North Carolina test, and are very familiar to anyone trying to use medical records for evaluation purposes.

20 staff days to complete for a sample of 300-400 inmates, assuming that all exam records can be assembled in one place. Adequate computerization might save some of this time, but its usefulness would depend on more uniformity in recording practices than currently exists. Coding poses the principal time-consuming element. Routine follow-up examinations and analysis of their results would couble the necessary data preparation and analysis time.

Improving reliability means convincing the medical staff of the importance of recording exam results consistently. Even good coders cannot compensate for information misrecorded by the examiner. Obtaining consistency in medical records is not a task unique to corrections, but it is no less vital to accurate feedback on performance for all that.

(3) UNIFORMITY: Once a uniform set of screening factors and body systems has been selected, revising a state's intake exam format to include all items requires a one-time investment in reformatting and briefing examiners. It might also entail the expense of additional tests, such as for determining serum cholesterol levels.

These measures estimate the effects of incarceration on inmate health. A corrections department would strive to limit or eliminate changes for the worse on both measures. Of course, worsening conditions could arise from a variety of factors, including declining medical care or changing prison conditions (e.g., diet, level of exercise, sanitation). Some causes may be detectable upon examing what, specifically, changed. (For instance, increased anemia would suggest needed improvements in inmate diet, whereas decreased eye problems would indicate that inmates in need of glasses had received them). These data would alert correctional managers to health problems that needed further investigation. Exhibit 4-5 shows the extent of change in Measure

Exhibit 4-5
(Measure 9d)

CHANGES IN POTENTIAL HEALTH PROBLEMS WHILE INCARCERATED:
PROPORTION OF INMATES WITH ABNORMAL RESULTS ON SCREENING TESTS AT ADMISSION AND AT POST-TEST[1]

SCORE AT ADMISSION	SCORE AT POST-TEST: 0	1	2	3 or more	Total at Admission
0	40%	16%	5%	2%	63%
1	4%	12%	2%	2%	20%
2	1%	2%	8%	3%	14%
3 or more			1%	2%	3%
Total at Follow-up	45%	30%	16%	9%	100% (n=92)

GD-16a

LEGEND AND SUMMARY

▒ = Got worse.

30 percent have more abnormalities at post test than at admission.

▨ = Got better.

8 percent have fewer abnormalities at post test than at admissions

More than half (60%) have at least one abnormality at one or both testings.

1. Scoring: obesity=1 if 10-29% overweight, 2 if more than 30% overweight; hypertension=1 if borderline, 2 if definite; glucose=1 if blood or urine abnormal, 2 if both abnormal; hematocrit=1 if less than or equal to 35%; liver function=1 if blood B.U.N. or blood or urine bilirubin abnormal, 2 if two or more abnormal. Index range= 0-9.

Source: North Carolina entry and retest examination results 9 months later. N=92.

9d for a sample of North Carolina inmates from intake to reexamination nine months later. The exhibit indicates that a significant percentage (30%) of this inmate sample have "less healthy" scores on the index of screening factors after nine months' incarceration than they did at intake. Fifty-five percent of inmates tested had at least one abnormal screening factor at the follow-up examination compared to 37% at intake. Medical managers would need to look at these data in greater detail, to pinpoint factors over which they might have some control.

Exhibit 4-6 displays data from Measure 9e on the same sample. Examination of these results might cause prison medical officials to ask what treatment or organizational factors succeeded in reducing illness or abnormalities in one-fourth of the intake sample, as opposed to those conditions which caused deterioration in an additional one-fourth. Possible means for improvement for the 20 percent with at least one stable abnormality might also concern these managers.

A department might also want to calculate Measures 9d and 9e separately for younger and older inmates, if sample size permits. Older inmates might be expected to show deterioration in health regardless of what happens in prison. But significant worsening of younger inmates' health would signal potentially serious problems that need correction. At the very least, corrections departments should make better use of intake medical information than most now do. The indexes used for measures 9d and 9e could be calculated for all inmates using the findings from intake medical exams. These could provide baseline medical information on inmate health even without measuring changes in health status while in prison.

Exhibit 4-6
(Measure 9e)

PROPORTION OF INMATES WITH CHANGES IN BODY SYSTEM ABNORMALITIES FROM ADMISSION TO POST TEST[1]

NUMBER OF ABNORMALITIES AT POST TEST

NUMBER OF ABNORMALITIES AT ADMISSION	0	1	2	3 or more	Total at Admission
0	32%	9%	2%	2%	45%
1	14%	13%	6%	3%	36%
2	2%	3%	4%	2%	11%
3 or more	4%		1%	3%	8%
Total at Follow-up	52%	25%	13%	10%	100% (n=91)

GD-17a

LEGEND AND SUMMARY

▒ = Got worse.

24 percent got worse between admission and post test.

▨ = Got better.

24 percent got better between admission and post test.

68 percent had at least one system abnormality at one examination or both.

1. Body systems included are: Head, face, neck and scalp; nose; sinuses; mouth and throat (including dental if physician notes it); ears; eyes; lungs and chest; heart; vascular system; abdomen and viscera; anus and rectum; endocrine; genito-urinary; upper and lower extremities; spine and other musculo-skeletal; skin and lymphatics; neurologic; psychiatric.

Source: North Carolina admission and post-test examination results nine months later. N=91.

MEASURE 10: INMATE MENTAL HEALTH STATUS

10A: NUMBER OF SUICIDES AND SUICIDE ATTEMPTS

10B: NUMBER OF REQUESTS FOR MEDICATIONS TO ALLEVIATE MENTAL DISTRESS / AVERAGE POPULATION

10C: PROPORTION OF INMATES WITH SYMPTOMS OF MENTAL DISTRESS

DESCRIPTION

In developing measures of inmate mental health status, we faced disagreeable choices among the most desirable and meaningful indicators, those for which data were most likely to exist now, and those for which existing data allowed meaningful interpretation. Measures 10a and 10b comprise those measures most available to corrections departments now, which lend themselves to meaningful interpretation. Measure 10c provides the most informative reading on inmate mental health status should a department decide to invest the resources to collect it.

Measure 10a lists the number of suicides and suicide attempts during the measurement period. Suicides occur too infrequently even in large systems to justify calculating a suicide rate. For instance, North Carolina, a large system with approximately 15,000 inmates, averages only two suicides per year. For cross-system comparisons, managers will have to use some ratio of suicides to average population, because only rates will yield meaningful data when comparing systems of different sizes.

Measure 10b gives the proportion of the inmate population which feels enough pressure or mental distress to want tranquilizing medications for relief.

Measure 10c uses data from standardized mental distress symptom checklists* to estimate the effects of prison on inmate mental health. We strongly suggest that departments which really want to know how stressful imprisonment is for inmates conduct an annual survey of inmates to find out, using standardized assessments of mental distress. Such a survey should use a randomly selected sample of the inmate population who have been in prison six months or more. Conducting an identical assessment either at intake or release, which would be administratively easier to do, will not tell departments what they need to know. For example, incoming inmates will express relatively high anxiety levels because they do not yet know how they will adjust to prison life. Changes from intake to followup (9 months later) in our North Carolina test reflected adjustment to prison (lowered anxiety) more than anything that prison officials could act upon. Our work in North Carolina, including admission and follow-up testing of a sample of 150 inmates, convinced us that prison officials will learn little about the effects of prison, per se, on inmate mental health using information obtained at intake, or comparisons of follow-up information to intake information.

In addition, we suggest that the survey use measures which assess inmates' sumptoms of distress rather than their underlying personality, since prison officials probably want to reduce the levels of mental distress symptoms, not to change personalities. Thus, instruments which directly tap depression, suicidal thoughts, anxiety, psychosomatic complaints, obsessive-

*Some instruments that appear useful for prison environments are: 1) Zung Depression Index (Zung, W.W.K., A Self-Rating Depression Scale. Archives of General Psychiatry, 1965, Vol. 12, p. 63); 2) Brief Symptom Inventory (Derogatis, L. SCL-90 Revised Version Manual I. Baltimore, MD: Johns Hopkins School of Medicine, 1977); 3) Profile of Mood States (McNair, et al., EITS Manual for the Profile of Mood States. San Diego, CA: Educational and Industrial Testing Service, 1972). See Appendix A for a short (58-item) version of Derogatis' Brief Symptom Inventory.

compulsive behavior, and paranoia or incipient violence toward self or others* are best for purposes of assessing the effects of prison on inmate mental health. Data for Measure 10c can be collected along with the victimization survey (Measures 3a and 3b) so as to capitalize on the administrative arrangements necessary for selecting and scheduling inmates.

POTENTIAL DATA SOURCES

Corrections departments already keep track of suicides for Measure 10a through their death statistics. Suicide attempts are less likely to be recorded in a single, easily accessible place, but records should exist in psychological records and mental health units. Rather than attempt to retrieve these data from individual inmate files, mental health workers in each facility should begin a log of suicide attempts, summarize the log periodically and send the figures at least annually to the central corrections office for processing.

Since Measure 10b totals requests for medications to relieve mental tension, departments will have to develop a system for logging requests even if the inmate does not ultimately receive the medicine. At present, most departments will not have information on requests. Measure 10b should be based on requests to be the most valid indicator of inmate mental distress. However, a department may need some time to develop a logging system for requests. Actual use of medications to relieve mental distress could serve as a temporary substitute for requests.

Measure 10c requires inmates to fill out a questionnaire that asks about

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* See footnote on page 91 and Appendix A for possible instruments.

symptoms of mental distress. No corrections department presently collects such data. Procedures for gathering this information are provided in Appendix A, along with a sample of one possible assessment instrument (pp. A-19 to A-21). For maximum efficiency and minimum cost, data for Measure 10c should be collected along with those for Measure 3a, 3b, 4a, and 5e.

USING THESE MEASURES

As with the other measures, Measures 10a, 10b, and 10c can be arrayed on a year-to-year basis for a single facility or a system as a whole, in facility-to-facility comparisons, and by any special breakouts corrections managers deem important. For these measures, relevant comparisons include security level, inmate characteristics (age, sex, race, length of sentence), level of facility overcrowding (Measure 6a) or degree of idleness among inmates at different facilities.

DATA COST AND QUALITY

Logging suicides and suicide attempts will take about two minutes per log entry. It will then take approximately one day of staff time to cumulate, total, and develop a display for Measure 10a. Someone at each facility will have to report the number of suicides and suicide attempts to the central office each year. Suicide data should be accurate, but departments will have to define what behavior "counts" as a suicide attempt. Staff should believe that the inmate's actions were seriously directed at ending his life before they count a behavior as a suicide attempt. Self-mutilation (self-infliction of wounds, burns, cuts, etc.) where no serious chance of death was intended should not be counted as a suicide attempt.

Development of a system to log requests for medication to relieve

mental distress (Measure 10b) will take some time. The measurement system coordinator and the working group guiding the performance measurement effort should consider what staff people will most likely receive these requests and when. If most requests occur at sick call, a log to be filled in by medical staff will probably suffice. Under this circumstance, logging should take about 2 minutes per entry, tallying the logs at each facility will take one or two hours per quarter at each facility. Annual compilations of these facility tallies should require one or two days of analyst time to cumulate the data and make data displays. If inmates request medications from non-medical personnel, these people will probably refer them to sick call. Therefore the use of logs at sick call will probably be adequate for collecting Measure 10b data. In lieu of logs recording inmate requests, a department could use pharmacist records of prescriptions actually dispensed. If the prescribing physician or mental health worker keeps a log of prescriptions written, Measure 10b will require one minute per log entry and about one-half day of staff time to tally. If the corrections pharmacist provides the information, it should take an hour a quarter to produce tallies, and no more than an hour a year to add them up and calculate Measure 10b. Since pharmacists uaually keep records of drugs dispensed, by drug type, making tallies quarterly for "mental health" medications should be easy.

Measure 10b summarizes the number of requests for "mental" medication. It may easily register a high number of requests if a few inmates ask for such drugs every day. If a department is seriously concerned about this type of "inflation," it can make the additional calculation of what proportion of the inmate population makes at least one request for medication to relieve mental distress each month. While more accurate as an indicator of the extent of mental distress in prison, this variation is significantly

more time-consuming to derive. It requires someone at each facility to assess the number of people requesting medication each month, rather than simply counting up the number of requests. Such a tally could add about an hour a month to facility workload for a small facility (about 100 inmates) and up to one day per month for a large facility (100 inmates or more).

Data for Measure 10c come from an inmate survey (see Appendix A for a description of procedures to conduct this survey). Assuming these data are collected at the same time as those for Measures 3a and 3b, additional costs to obtain a reading on inmate mental distress should run approximately 10 to 12 psychology staff days for administration per 100 inmates surveyed, two days of data preparation time per 100 inmates, and 2 days of analyst time (regardless of the number of inmates surveyed) to analyze the data and prepare displays for management use.

Use of standardized instruments to measure inmate mental distress should yield accurate readings since these procedures have been widely used and their quality well-supported for many different client groups.

ALTERNATIVES

Two obvious indicators of mental distress among inmates are the extent to which inmates desire counseling to ease psychological problems, and the extent to which they require mental hospitalization. Unfortunately, most correctional systems do not have enough counseling or hospitalization available to meet inmate needs, so what they do have always gets maximum utilization. A measure based on counseling hours or mental hospitalization days may therefore not vary over time, since its value is controlled by availability, not by need. If three counselors work eight hours a day, a measure of inmate counseling hours received will always show 120 hours a

week, whether or not 120 inmates, 240 inmates, or 360 inmates want counseling. A major system change resulting in more available counseling hours than inmate need would make "counseling hours per 100 average population per year" a meaningful measure.

Another alternative measure might rely on inmate requests for counseling or hospitalization. Departments would have to devise some system that facilitated making requests even when staff believed inmates would not have their requests honored. We can readily envision corrections systems with so little assistance available for mentally distressed inmates that staff resist passing on inmate requests unless the situation has reached almost emergency proportions. Under these circumstances, the number of requests will equal the number of inmates hospitalized or seen by counselors, since only requests destined for success ever enter the record-keeping system. In systems short on staff equipped to deal with mental distress, inmates themselves may also censor requests they might have made were services more available. Thus, until services exceed demand, measures based either on requests or actual service delivery will likely underestimate actual need, and will not reflect changes in levels of mental distress.

CHAPTER FIVE

INTERMEDIATE PRODUCTS OF PROGRAMS AND SERVICES

The measures presented in this chapter summarize "intermediate" products; they do not reflect final impacts on inmates or the public. We did not originally plan to include them. However, since corrections departments have legal obligations to provide some of these services (such as education for juveniles), and the moral and increasingly legal obligation to provide high quality medical and mental health care, and because corrections managers may have uses for these measures, we include this chapter.

MEASURE 11: IMPROVEMENTS IN BASIC SKILLS

11A: GENERAL EQUIVALENCY DEGREES (G.E.D.) EARNED
GENERAL EQUIVALENCY EXAMINATIONS TAKEN

11B: PERCENT OF INMATES ENROLLED IN EDUCATIONAL PROGRAMS WHO SHOW IMPROVEMENT IN SCORES ON THE WIDE-RANGE ACHIEVEMENT TEST (WRAT) (OR ANY EQUIVALENT TEST) PER MONTH OF SCHOOL ATTENDANCE

MEASURE 12: VOCATIONAL EDUCATION COMPLETED

12: VOCATIONAL CERTIFICATES AWARDED
INMATES ENROLLED IN VOCATIONAL PROGRAMS

DESCRIPTION

We deal with Measures 11a, 11b, and 12 together because their content and interpretation are similar. Measures 11a, 11b and 12 rely on some formal testing mechanism to determine that inmates have acquired basic or

vocational skills through participation in prison programs. Thus, Measures 11a and 12 assess what proportion of inmates trying to acquire and demonstrate a particular level of achievement have actually done so. Measure 11a assesses basic skill learning, whereas Measure 12 summarizes vocational skill learning. Measure 11b reflects the effects of particular amounts of program attendance (months in school) on basic skills such as reading and arithmetic ability.

POTENTIAL DATA SOURCES

Administration of tests for the General Equivalency Degree (Measure 11a) and certifications of vocational training (Measure 12) usually happens in agencies other than corrections departments. Both of our test states relied on local community colleges, vocational-technical schools, and the state Department of Education to do the testing needed for Measures 11a and 12. North Carolina, and probably other states as well, keeps a master log of vocational training program assignments and completions (certificates gained). Measure 12 is easily calculated from this type of log.

For Measure 11b corrections agencies can administer appropriate standardized achievement tests. Both test states use the Wide-Range Achievement Test (WRAT) at intake to assess literacy and other basic skill levels for all incoming inmates. Minnesota also uses the WRAT at least annually to produce Measure 11b.

USING THESE MEASURES

Displayed for the corrections system as a whole, the measures can show changes over time. These changes should reflect efforts to improve educational services. An erosion in performance would signal a need to examine educational activities to discover ways to improve performance. To be most

useful, Measures 11a, 11b, and 12 should be calculated separately for each educational or vocational program. This will let managers analyze which programs may need to improve their performance. Data displays showing program-specific or over-time performance should follow the format of other similar displays elsewhere in this manual.

DATA COST AND QUALITY

The administrative costs of Measures 11a and 12 are borne by public schools, colleges, or state Departments of Education. Corrections departments may have to support the purchase of separate General Equivalency Degree examinations, which in North Carolina cost approximately $1.00 for each examination taken. Corrections departments receive computerized results of these tests, and would need only to develop displays for these data. This would take approximately one day of analyst time per year for the whole corrections system, because the data for displays will already be categorized and summarized.

Some departments already produce Measure 11b, so they would incur little extra cost for this measure. Assuming that corrections departments already have the data available for Measure 11b because they use standardized achievement tests at intake and in their basic education programs, computing educational achievement due to educational programs and developing displays for Measure 11b should take 1 or 2 days per year of analyst time.

ALTERNATIVES

Measures 11a, 11b and 12 all reflect the progress of students enrolled in courses, which means that the students involved have expressed an interest in acquiring new basic or vocational skills. Many corrections departments believe their obligation to impart new skills extends only to those

inmates who want to learn and who demonstrate this motivation by taking courses. But some departments may take a larger view of their charge, feeling their objective encompasses teaching literacy and other basic skills to all who need them. Need in this case would be assessed at intake as inmates gave sub-standard performances on the WRAT or equivalent standardized test, or by the absence of a high school diploma. Departments with this broader sense of their educational mission should modify Measures 11a and 11b accordingly. Measure 11a would become:

$$\frac{\text{G.E.D.'s earned}}{\text{Inmates without high school diplomas at intake}}$$

Measure 11b would become:

$$\frac{\text{Percent at discharge reading (or other skill) at 5th grade level or better}}{\text{Percent at intake who could not read (or other skill) at 5th grade level}}$$

To construct these alternative measures a department should identify all "needy" inmates at intake. At discharge their files should be reviewed to determine if they contain any evidence of educational achievement. Measures 11a and 11b would thus tell what percentage of the "needy" inmates entering prison during a base period accomplished some educational objectives.

MEASURE 13: INDICATORS OF MEDICAL AND MENTAL HEALTH SERVICE DELIVERY

13A: PERCENT OF CONDITIONS RECEIVING THE SAME DIAGNOSIS FROM DEPARTMENT OF CORRECTIONS PHYSICIANS AND OUTSIDE EVALUATOR PHYSICIANS

13B: CONDITIONS REFERRED FOR TREATMENT BY DEPARTMENT OF CORRECTIONS PHYSICIANS
CONDITIONS REFERRED FOR TREATMENT BY OUTSIDE EVALUATOR PHYSICIANS

13C: PERCENT OF CONDITIONS TREATED IN ACCORD WITH "BEST CURRENT PRACTICE"

DESCRIPTION

Measures 13a, 13b and 13c (unlike Measures 9a-f and 10a-e) evaluate the actual medical and mental health care delivered to inmates. They do not summarize inmate health status, but reflect instead the adequacy of medical and mental health service delivery. Factors which might affect general measures of inmate health status (Measures 9a-f) should not greatly affect measures of service adequacy. But Measures 13a, 13b and 13c do rely on the availability of a criterion of excellent performance.

Unfortunately, all institutions grappling with the need to evaluate medical and mental health care run into the difficulty of what to use as this criterion of excellent performance. One cannot realistically use "cures" as the standard practice since even the best current practice cannot cure many conditions. The best answer to this dilemma so far has been to use private physicians operating under American Medical Association auspices to check the work of prison personnel in the health

services.* Measures 13a, 13b and 13c address the question: "Do prisoners receive medical care equivalent to current knowledge and reasonable practice in non-prison settings?" To answer this question, Measures 13a, 13b and 13c compare the performance of prison health services personnel to that of outside evaluator physicians. The outside evaluator physician's performance is assumed to be the standard against which to assess the prison physicians' performance. Measures 13a and 13b assume that both prison and outside physicians independently examine the same inmates, and an analyst compares the number of conditions detected, diagnosed, and referred for treatment by the two physicians. This dual examination can take place at intake or at some time set aside for a special examination of a cross-section of current inmates. Conducting the dual examination at intake has several advantages:

- Prison physicians must examine incoming inmates at this time.
- No special scheduling of inmates or prison physicians is necessary, since the timing coincides with routine prison activity. Only outside examiners need special scheduling.
- In corrections departments with diagnostic and reception centers, inmates are gathered in a few locations for intake exams, making coordination with outside examiners easier.
- The intake physical is the prison medical system's primary way of knowing what health problems need attention, and is the only occasion at present when every inmate has contact with the medical staff. If performance is poor at this time, the health of all inmates may suffer.

For Measure 13c, outside evaluator physicians would randomly select cases from prison medical files of care delivered after inmates had spent some time in prison, and review these for treatment delivered in accord with "best current medical practice." This procedure would function in a way similar to the activities of professional standards review organizations (PSRO's) in hospitals and medical centers outside of prison. It would assess the adequacy of on-going medical care, just as Measures 13a and 13b (if conducted at intake) assess the adequacy of medical attention received at intake. Procedures for Measure 13c should be scheduled to coincide with those of Measures 13a and 13b, so the presence of outside examiners is used to greatest advantage.

POTENTIAL DATA SOURCES

The records of physical examinations conducted at intake by prison physicians provide the information on detection, diagnostic, and referral activity of prison medical services. Prison medical records of ongoing treatment provide the data for review for Measure 13c. Corrections departments interested in pursuing Measures 13a, 13b and 13c will need to contact their state medical society and negotiate a cooperative arrangement to use private physicians who are willing to participate in periodic examinations of prison health performance. If the physical examinations by independent physicians are recorded on forms similar to those used by prison doctors, the two can be compared to produce Mea-

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* See Anno, B. J., and C.A. Hornung, "Summary of an Evaluation of the American Medical Association's Program to Improve Health Care in Jails," paper presented at the Second National Workshop on Criminal Justice Evaluation, Washington, D.C., September, 1978 for a description of one extensive LEAA-sponsored project successfully using this approach. See also Key to Health in a Padlocked Society, Office of Health and Medical Affairs, Lansing, Michigan 48913, January, 1975.

sures 13a and 13b. Some rating scheme for evaluating the medical records would need to be devised for rating the sampled medical records to produce Measure 13c. Consultation with local professional services review organizations (PSRO's) will provide corrections departments with the latest techniques for accomplishing this review.

USING THESE MEASURES

Measures 13a and 13b provide obvious targets for service improvement, should prison medical personnel fall short of the performance standard. Failures to diagnose or treat serious conditions should be taken as strong signals to upgrade services. These measures should be calculated separately for each facility delivering treatment, to detect problems at individual facilities and treatment to detect differences in performance between medical services at different facilities. Managers can also use Measures 13a and 13b to show performance changes at medical facilities over time. Medical managers might want to array Measure 13c by disease or condition, to see if prison physicians often treat some conditions incorrectly while adequately treating many others. This pattern might indicate areas of knowledge in which physicians have fallen behind current practice. In-service training might then attempt to correct any deficiencies.

DATA COST AND QUALITY

We have no direct experience with the cost or quality of these measures. Managers interested in them should contact the evaluators of the AMA Jail Project (see footnote, page 102), their state medical society, or local PSRO's for their best judgment on cost, reliability, and usefulness. Our best information suggests that independent physician examinations can cost at least $100 each. Additional expenses for coor-

dinating and administering the examinations and analyzing the data make these measures very expensive to obtain unless some arrangement can be made with physicians to donate all or part of their services.

Obviously such potential costs mean departments would want to sample rather than looking at all possible intake exams and subsequent treatment. Sampling for Measures 13a and 13b would best be done by picking particular weeks or months every year and looking at all inmates admitted during those periods. Measure 13c could also be based on samples of treatment delivered, taking for instance, all cases seeking treatment during a single week or month. Gathering data from medical examinations for Measures 13a, 13b and 13c and for Measures 9d and 9e (change in inmate health status from intake to follow-up) will probably cost a great deal relative to most other measures proposed in this manual. A department may only be able to afford one of these procedures, and will have to consider numerous factors in deciding which measures to pursue. On balance we recommend establishing adequate performance on Measures 13a, 13b and 13c before pursuing Measures 9d and 9e, if you must choose between them. We say this because Measures 13a, 13b and 13c assess the accuracy and adequacy of medical services (and of medical personnel). Corrections departments must rely on their own medical staff to conduct the intake and follow-up examinations necessary to provide data for Measures 9d and 9e. Without confidence in medical staff performance one's confidence in the value of Measures 9d and 9e drops. Therefore, we must suggest investing the resources in Measures 13a, 13b and 13c until a department feels confident that its medical staff do diagnose and treat most conditions in need of care. Then the diagnostic data they supply for Measures 9d and 9e will carry most weight.

CHAPTER SIX

MEASURES OF POST-RELEASE SUCCESS

MEASURE 14: POST-RELEASE EMPLOYMENT SUCCESS

14A: PROPORTION OF RELEASEES WITH EARNINGS OF AT LEAST $X DURING THEIR FIRST (SECOND, ETC.) YEAR AFTER RELEASE.

14B: PROPORTION OF RELEASEES WITH EARNINGS IN AT LEAST TWO (THREE, FOUR) QUARTERS OF THEIR FIRST (SECOND, ETC.) YEAR AFTER RELEASE.

DESCRIPTION

Measure 14a assesses the earnings success of releasees. Measure 14b assesses the regularity of employment of releasees. These measures reflect the extent to which releasees from prison have become legally self-supporting. Measure 14a focuses on the financial success of releasees, in terms of how much money they earn. Measure 14b assesses how regularly releasees work. Corrections systems can influence performance on these measures through education and training programs, pre-release planning, parole supervision and job search assistance.

POTENTIAL DATA SOURCES

Parole records may contain data to construct Measures 14a and 14b for inmates on parole, if a high enough proportion of inmates leave prison on parole, and if they stay on parole for long enough to provide a meaningful

follow-up period. These conditions are not met in many states.

The Florida Department of Corrections has recently operationalized a computer-based parole information system that records employment data every six months. Neither of our test states (North Carolina or Minnesota) obtained or recorded post-release employment information adequate to construct these measures even for parolees. Some states may actually have the information in their parole records (for example, New Jersey), but retrieving it is such a laborious manual effort and one fraught with reliability problems, that they have never thought the payoff justified the cost.

Two other data sources exist in most states that provide a feasible and relatively easy means to measure post-release employment success. These are the records maintained by state departments of economic security for unemployment insurance purposes (called "wage entitlement" records), and the state income tax records of state revenue departments. Six states do not have state income taxes: Florida, Nevada, South Dakota, Texas, Washington and Wyoming. Twelve states do not record wage entitlement information in a way that makes it useful to corrections departments (Hawaii, Massachusetts, Michigan, Minnesota, Nebraska, New Jersey, New York, Ohio, Rhode Island, Wisconsin, Utah and Vermont). Measure 14b cannot be constructed without wage entitlement data. No state misses both of these potential data sources, so any corrections department interested in pursuing Measures 14a and 14b would be able to negotiate with at least one of the two agencies (economic security or revenue) to obtain relevant data.

A corrections department should contact the Economic Security and/or Revenue agencies in its state and work out specific arrangements to obtain these data. We called these agencies in a sample of 12 states to find out

whether they could participate in such a joint venture with corrections departments. We found no legal or technical restraints that would prevent them from cooperating with corrections departments, but all said they would have to see the details of specific arrangements before they could make a firm commitment. All said they would be open to developing a working relationship with the corrections department in their state.

State Departments of Economic Security (DES) receive quarterly information on wages paid to employees in jobs covered by unemployment insurance. DES saves these reports for five calendar quarters. Revenue departments operate on a calendar year basis. Therefore, if a corrections department wants data covering the same time period from both departments it will need to get DES data for the four quarters corresponding to Revenue's calendar year.

We first thought that DES records would be more complete than Revenue's, because DES relies on employers for reporting whereas Revenue depends on ex-offenders to report their own income. However, the lure of tax refunds promotes many income tax filings even from people whose earnings fall below the mandatory filing cutoff. DES records also miss earnings from jobs not covered by unemployment insurance. The two data sources thus miss earnings information for approximately equal percentages (20%) of ex-offenders. DES records are both more detailed than Revenue's (number of quarters with earnings, number of employers in a given quarter) and more flexible because of quarterly reporting. A good combination approach might be to obtain information from DES for the entire sample, because DES has the most detailed information, including all the data for

Measure 14b. Then, request information from Revenue only on releasees who show no earnings reported to DES. The most complete coverage would result from obtaining earnings data on the same sample from both DES and Revenue, if you have both in your state and both will cooperate.

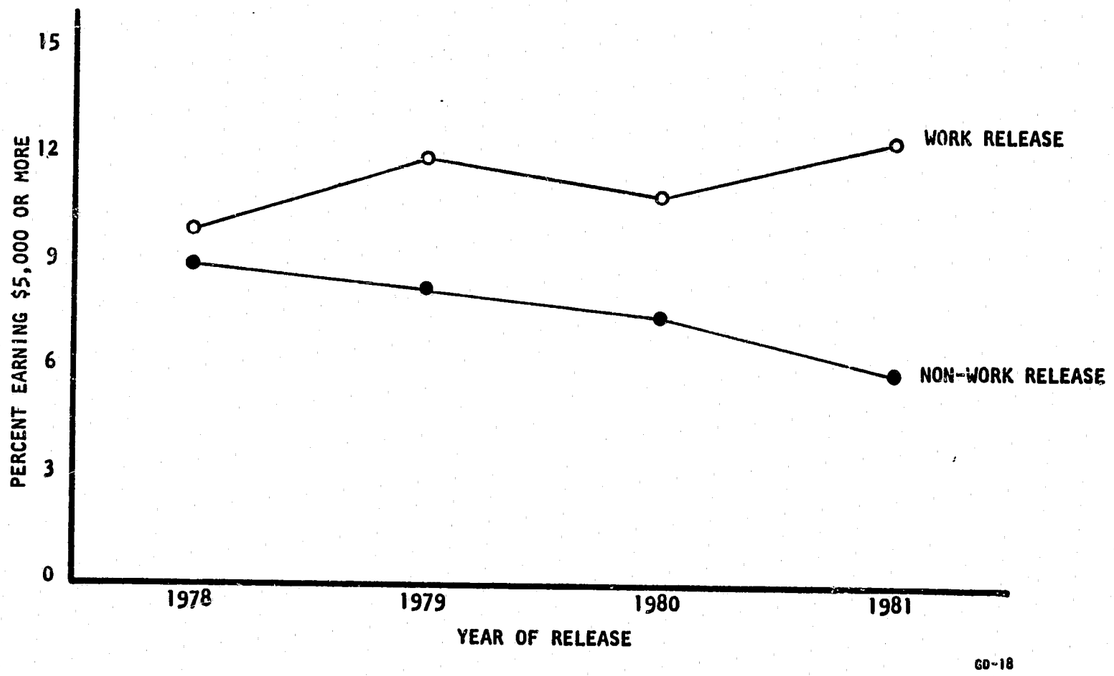
In order to access the income information available through state economic security or revenue departments, corrections departments must have the social security numbers of their releasees. Some corrections agencies consistently record social security numbers and have them computer-accessible. Some make sure that if inmates don't already have a social security number, they do not leave prison without getting one. Some states only haphazardly record social security numbers, and some states do not even have a place on any official form for recording the number. Minor problems may occur with criminal offenders who have more than one social security number. The information contained in economic security or revenue records is desirable enough that corrections departments should take the trouble to record social security numbers even if they may receive some misuse from criminal offenders.

USING THESE MEASURES

Measures 14a and 14b indicate the level of success achieved by prison rehabilitation or training programs. A department can use these data to make several interesting comparisons. Suppose it wants to know whether prison programs have turned out higher percentages of legally self-supporting releasees over several years. Calculating Measures 14a or 14b separately for the first 12 months post-release of each "graduating class" and arraying the results as we have done in Exhibit 6-1 would show whether inmates re-

Exhibit 6-1
(Measure 14a)

HYPOTHETICAL DISTRIBUTION OF POST-RELEASE EMPLOYMENT SUCCESS DATA: PERCENT OF WORK-RELEASE AND NON-WORK-RELEASE INMATES EARNING $5,000 OR MORE DURING THEIR FIRST 12 MONTHS POST-RELEASE



ceiving training on special programs in prison did consistently better or worse than inmates without.

A department might also want to know whether inmates' earnings increase or decrease as a result of special training after they have been out in the community for several years. Use of social security numbers and Economic Security/Revenue data will answer this long-term follow-up question quite easily. Simply resubmit the same social security numbers to the Economic Security or Revenue agency several years post-release, and compare the results to the performance data from the first year post-release.

Measures 14a and 14b can also compare the performance of parolees versus unconditional releasees, work-release inmates versus non-work release people, or graduates of any in-prison educational or vocational program versus non-graduates. The measures can serve as evaluative feedback for specific programs designed to improve the post-release employment behavior of inmates, as well as giving an overall reading on the employment performance of all inmates after release.

Exhibits 6-2 and 6-3 exemplify the use of post-release employment data. Exhibit 6-2 gives the approximate 1978 earnings covered by unemployment insurance of a random sample of male inmates released from North Carolina prisons in the fourth quarter of 1977. Exhibit 6-3 shows the number of calendar quarters in which these same inmates had some earnings during 1978. Both Exhibits 6-2 and 6-3 also illustrate some differences among types of inmates. Neither age or the number of prior incarcerations seem to make much difference in determining what inmates earn during their first year post-release, but inmates serving longer sentences appear to

Exhibit 6-2

Percentage of 1977 Male Releasees with 1978 earnings (Measure 14a)[1]
(N=109)

Releasees	Earnings Reported to ESC			
	$0	$1 - 1,999	$2,000 - 4,999	$5,000 +
All releasees in sample	33%	37%	19%	11%
by age				
16-21	26	48	13	13
22-30	33	33	24	10
31 +	37	34	17	11
by time served				
0- 6 months	43	38	17	3
7-12 months	26	43	17	13
13-24 months	32	39	14	14
25+ months	22	22	35	24
by number of prior incarcerations				
0	23	24	16	15
1	30	44	19	7
2+	36	29	36	0

[1]Random sample of 109 Fourth Quarter 1977 releasees from North Carolina Department of Corrections.

Source: North Carolina Employment Security Commission wage entitlement data.

Exhibit 6-3

Regularity of Employment in 1978 Among 1977 Male Releasees (Measure 14b)[1]

Releasees	Quarters with earnings Reported to ESC		
	None	1 or 2	3 or 4
All	33%	30%	37%
by age			
16-21	26	39	35
22-30	33	25	41
31+	37	29	34
by time served			
0- 6 months	43	37	20
7-12 months	26	30	43
13-24 months	32	25	34
25+ months	22	11	67
by number of prior incarcerations			
0	34	29	37
1	30	33	37
2+	36	21	43

[1]Random sample of 109 Fourth Quarter 1977 releasees from North Carolina Department of Corrections.

Source: North Carolina Employment Security Commission wage entitlement data.

do slightly better on release. The sample size in our North Carolina test was too small to interpret these data with confidence, however.

Another comparison of potential interest to corrections managers is how the post-release earnings of inmates stack up against the average incomes of never-incarcerated individuals. All states publish information on per capita personal income, median family income, income levels considered poverty line for that state, and so on. Corrections departments could use wage entitlement or revenue data to calculate approximate "per capita" incomes of ex-offenders, and compare these to statewide per capita incomes. Revenue data would work best in this comparison because they include all income rather than just income earned in jobs covered by unemployment insurance.

DATA COST AND QUALITY

Data for these measures can be obtained through the following procedures:

1. Decide what groups of inmates to compare to each other on post-release employment success. For instance, a department could compare parolees to unconditional releasees, or graduates of some in-prison vocational training programs with those who received no training. Select as many mutually exclusive groups as desired, but remember that the more groups, the larger the total sample must be, and the more work the Departments of Economic Security and Revenue (DES/REV) must do.
2. Select a random sample of releasees from within each of the groups designated in Step 1. Subsamples should contain about 100 inmates <u>per group</u> (four groups thus require a total sample

size of approximately 400 releasees). We suggest 100 as the smallest number of inmates per groups based on expected cell size in the different income categories (see Step 4 below). Also, DES/REV needs to maintain confidentiality with respect to any information that might be attributable to individuals. Therefore, any data summary expected to contain cell sizes of less than 10 individuals would probably be unacceptable to DES/REV in most states. Larger sample sizes will increase the confidence one can have in the results you get.

3. Prepare a list of the social security numbers in each subsample to send to DES/REV (if you had four groups, and had therefore generated four subsamples, you would send four lists of social security numbers to DES/REV).

-. Decide, probably in consultation with DES/REV, what levels of income to use as categories. Our North Carolina test used four categories: those with no reported income; those with reported incomes between $1 and $1999; between $2000 and $4999, and $5000 and over. We used the results of our North Carolina test to derive the sample sizes recommended in Step 2. We looked for the income category containing the smallest number of releasees, which turned out to be those with incomes over $5000. Eleven percent of the sample fell into this category. To assure the confidentiality of DES/REV information and to have confidence in the results of this procedure, cells must contain at least ten individuals. If eleven percent of the sample are expected in the smallest cell, a sample size of at least 100 will be needed to assure ten people in the smallest cell

(100 x 11% = 11 people). Therefore, we recommend samples of at least 100 inmates for each group to be assessed for post-release employment success.

5. Send the lists of social security numbers and the income categories to DES/REV. To make DES/REV's job easier, include a blank table such as Exhibit 6-4, so that DES/REV only needs to fill in the cells with numbers and percentages.

6. DES/REV does a computer search, by social security numbers, identifies the incomes of releasees, fills in the blank table with the appropriate distributions (i.e., the number, of persons in each square of the table), and returns the completed table to the corrections department. This means that the corrections department will not know post-release income information for individual releasees, but will know the overall success rates of each subsample, and of the entire sample of releasees.

Cost. Developing the list of social security numbers for each subsample (assuming the corrections data system maintains a computerized record of them) requires approximately one person-week per year of a corrections analyst's time to do the computer programming, data analysis, and display involved for a sample of 500 releasees per year. Our estimates from our North Carolina test indicate it will take a Department of Economic Security or a Revenue Department approximately one person-week per year for a sample of 500 to supply the income information after receiving the social security numbers from corrections.

Coverage. Since access to these data rely on social security numbers, coverage is the proportion of releasees with known social security numbers.

Exhibit 6-4

SAMPLE TABLE OF POST-RELEASE EMPLOYMENT SUCCESS
TO BE COMPLETED BY A DEPARTMENT OF ECONOMIC SECURITY OF DEPARTMENT OF REVENUE

SUBSAMPLES	INCOME LEVEL FOR THE PERIOD								TOTALS
	$0		$1 - $1999		$2000 - $4999		$5000 - More		
	N	%	N	%	N	%	N	%	
Parole + Training (N=100)									100
Parole but no Training (N=100)									100
No Parole + Training (N=100)									100
No Parole and No Training (N=100)									100
TOTALS									400

In North Carolina this was 80 percent. Coverage is under Department of Corrections control, since it can decide to record or establish a social security number for all inmates if it wants to.

Reliability and Missing Information. In our North Carolina test, we tried both data sources. Data from DES and Revenue agreed on the level of releasees' earnings about 80 percent of the time. Since these departments will not release information that could be associated with particular individuals, this "agreement" between data sources means that if one source says a releasee earned between $2000-$4999, there was an .80 probability that the other source said the same. There is really no feasible way to combine the information from the two sources, so corrections departments should report the results separately if they use both sources. Any average earnings levels reported using DES or Revenue data should be qualified to indicate the probable inaccuracies in the data. With respect to the error rate of transcribing information (social security numbers) from corrections records to subsample lists, we found only 2-3% mistakes, which is an acceptable error rate.

Measures 14a and 14b have the following problems: 1) Individuals without known social security numbers cannot be included. 2) DES data cover only those occupations covered by unemployment insurance. They do not include income from uncovered occupations such as railroad or government jobs. 3) Income from some occupations (e.g., agricultural, household domestic, construction, and church) is often underreported to DES by employers, and these occupations figure strongly in the types of work often done by ex-prisoners. 4) Data from the Revenue Department depend on self-report by ex-prisoners when they file tax returns, but cover the

types of income potentially omitted from DES records. 5) Revenue files tend to omit some percentage of low-income people whose incomes fall below the mandatory filing cut-off ($2,000 in North Carolina). Ex-inmates may be over-represented in this group.

Despite these weaknesses, the partial compensations that could be achieved by using both DES and Revenue as complementary data sources and the absence of any viable alternative source of information on post-release employment success make DES/Revenue data a very attractive source for these measures.

Timing. Because prisons release inmates continuously throughout the year, post-release periods checked for employment success will not be exactly comparable for all ex-offenders. For instance, suppose a department wants to determine the employment success during the four quarters of 1978 for inmates released during 1977. For inmates released in January 1977, 1978 would be the second year out, but would be the first year out for those released in December. It isn't fair to lump these experiences together, since employment stability may be very different for the first twelve months post-release and the second twelve months. Parole requirements may force inmates to work during the immediate post-release months when they are on parole. People not on parole may have difficulty finding work, and may not stabilize for several months post-release. It is very desirable therefore to shorten the period of release from a whole year to one quarter. This will hold to a minimum, the discrepancies in adjustment time between inmates released early and late in the period.

We recommend selecting samples of releasees from among those inmates released during a single calendar quarter. If a department expects to use both DES and Revenue data, it will be best to use fourth-quarter releasees,

and check employment success for the next full calendar year (or the second, third, etc., calendar year). Using the four quarters of DES data and the calendar-year basis of revenue data will then produce equivalent follow-up periods. If it wants to use only DES data, it would not be constrained by calendar years as with Revenue data, and therefore could obtain information on post-release performance during any four-quarter period that was convenient to both corrections and DES personnel. Using only fourth-quarter releasees may introduce some bias into the samples, because these releasees may differ from those released in other quarters. If a department uses fourth-quarter releasees only, compare the demographic characteristics of the sample with those for other releasees to assess any ways the sample may differ from the general characteristics of all releasees. If differences occur you will then need to interpret the results keeping these in mind.

ALTERNATIVES

Using DES/REV files may at first appear not only new but unduly sophisticated. However, this procedure actually costs less, is more accurate, covers more releasees, and lends itself more to regular and repeated use than alternative approaches.

Use of Parole Records. Unfortunately, the parole records of most states have significant shortcomings for Measures 14a and 14b. First, not all inmates go out on parole, nor do all inmates initially on parole remain on parole for the same amount of time. Some stay on parole for only a month or two. States vary in the average length of time they maintain inmates on parole, but only very few states would be able to track a significant proportion of inmates past the first year post-release because a significant proportion of inmates leave parole custody during

their second year out. Second, parole files often miss substantial proportions of the information needed for these measures. In our tests, data had never been recorded or were sometimes recorded in the wrong place. In many cases parole supervision forms were not in the files. Third, in our tests in North Carolina, errors in transcribing key information about wage or employment status affected the accuracy of our findings for 30 or 40 percent of our parole sample. Because official forms often were missing, information came from chance references in paragraphs of other documents in the records. This meant a complete reading of each record to find what information existed, and resulted in very slow as well as incomplete data retrieval. From our test in North Carolina and review of the data quality in other states' parole records, we concluded that states will only be able to use parole records as a feasible source of data for Measures 14a and 14b if they:

- Have computerized parole records; and
- Are reasonably certain their parole officers do in fact complete all forms and supply the needed information; and
- Place most inmates on parole and inmates stay on parole for long enough to provide an adequate follow-up period.

If a state wants to use parole reports for these measures, we recommend a computerized system such as Florida's. Exhibit 6-5 shows Florida's reporting form, which a parole officer completes for each parolee every six months. All information reported in the boxes on this form enters the computer. Exhibit 6-6 illustrates the type of performance feedback possible with computerized parole records, using a measure of employment status (employed full-time, part-time, underemployed, etc.). Florida's reporting system would also make computation of Measures 14a and 14b possible.

Exhibit 6-5

FIER STATE CODE

CASE NUMBER

FLORIDA DEPARTMENT OF CORRECTIONS

Progress Report

CURRENT RISK: (1=Max;2=Med; 3=Min)

TYPE OF SUPERVISION: (1=PTI; 2=Probation; 3=Parole; 4=MCR; 5=MPP)

DC NUMBER

NAME: (Type or Print)
(Last, Comma, Remainder as on Orders of Supervision)

DATE OF REPORT: (M M) / (D D) / (Y Y)

SUPERVISING OFFICER NUMBER: (Circuit) - (Sec.) - (Officer)

REPORT PERIOD: From / / To / /

I. RESPONSIBILITIES & SPECIAL CONDITIONS:
(Code Values: 1=Completed; 2=Delinquent; 3=Complying)

a. Cost of Supervision | b. Fine and Court Cost | c. Restitution | d. Child Support

Special Conditions:

II. EMPLOYMENT: (See Codes On Back of This Sheet)

A. Current Status | B. Current Salary $ (Monthly Average) | C. If Job Changed Since Last Rpt. Reason | D. If Unemployed Since Last Rpt. Reason | Term of Unemployment

Job Title:

Employer: City/State:

COMPLETE FOR PAROLEES ONLY — Job Class: | Industry: | Skill Required:

III. STRUCTURED TREATMENT PROGRAM
(1=Plan; 2=Unavailable; 3=Enrolled; 4=Completed; 5=Withdrawn)

Date of Last Face to Face Contact: MM / DD / YY

	Orientation	Alcohol Program	Halfway House	Volunteer (Non-trade)	Volunteer (Specialist)	Drug Program	Educational Program	Vocational Program	Multimodal	Psychological	Misc. Group	Testing	Probation & Restitution	Mental Health
	A	B	C	D	E	F	G	H	I	J	K	L	M	N

IV. SPECIAL PROBLEMS (1=No Problem, 2=Problem Identified)
A. Alcohol [ ] B. Drug [ ] C. Marital [ ] D. Emotional [ ] E. Educational [ ] F. Financial [ ]

V. ARRESTS AND/OR VIOLATIONS Yes [ ] No [ ] (If Yes, See Narrative or Violation Report)

VI. RESIDENCE: Address Lives With: [ ] Family [ ] Alone [ ] Parents [ ] Other
City

VII. SUPERVISION PROGRESS: (1=Good; 2=Fair; 3=Poor)
Attitude | Behavior | Cooperation | Residence | STP | Employment | Overall Rating

VIII. PROGRESS NARRATIVE/TERMINATION SUMMARY Date of Last Case Review: MM DD YY

NOTE: Risk Classification is not changed by this Form: Enter Changes on Transaction Register (DC4-9381 or Risk Reclassification Report (Continue on other side if needed)

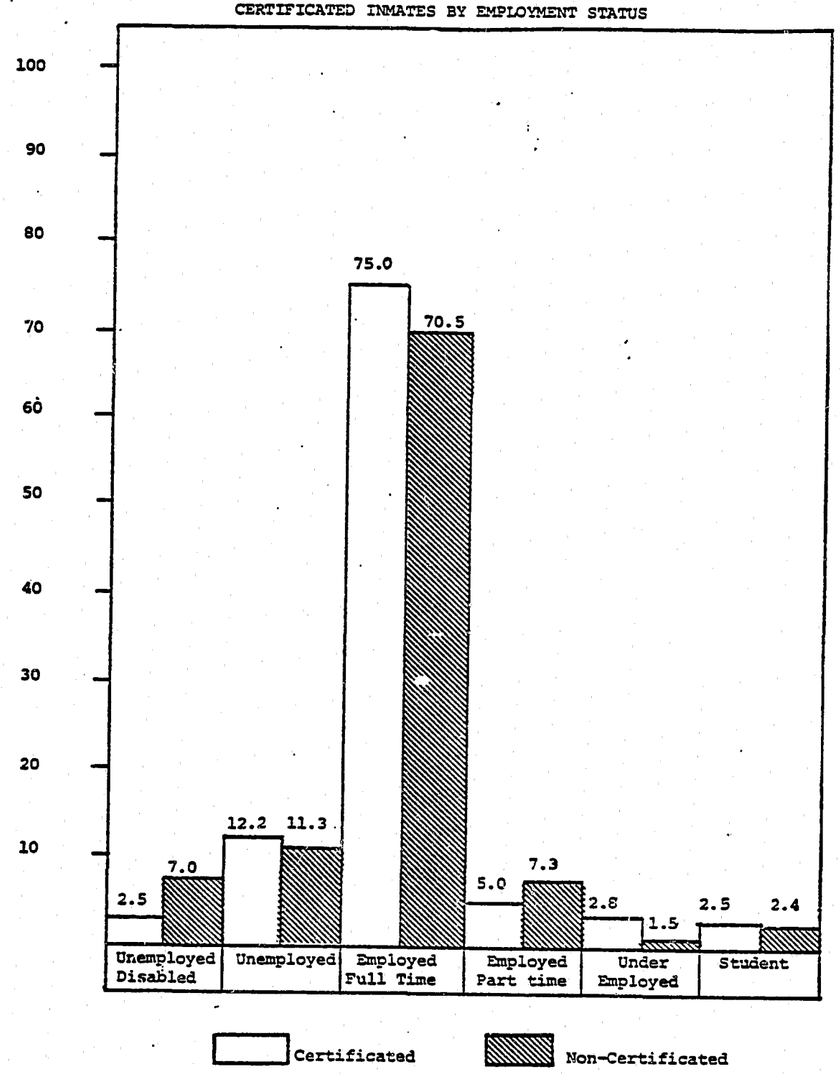
OFFICER SIGNATURE

DC4-917
Rev. 10/79

Routing - (All copies must be legible)
Inmate Parolees - Original to MIS and
- one copy to MIS (Front side only)
Florida Probationers - Original to District Case File, and
- one copy to MIS (Front side only)
Other States Cases - Original and 2 copies to Interstate Compact Administrator, and
- one copy to MIS (Front side only)

Exhibit 6-6

INMATES UNDER PAROLE SUPERVISION FY 1977-78
PERCENTAGE OF VOCATIONALLY CERTIFICATED AND NON CERTIFICATED INMATES BY EMPLOYMENT STATUS



Source: Job History Follow-up Study, Bureau of Planning, Research and Statistics, Florida Department of Correction, June 25, 1979.

Follow-up interviews of a sample of releasees would provide the most complete data, since other indicators of rehabilitation, such as marital stability or stability of living arrangements, could also be collected from releasees themselves. However, cost of follow-up interviews on a regular basis is very high, and no corrections department presently does routine follow-up on releasees after they leave parole custody. Good estimates of the cost of doing follow-up interviews run between $100 and $200 per interview to obtain a 70 percent response rate. Methods to cut these costs of in-person interviews which work with non-prison populations do not work well with ex-offenders. The experiences of our advisory group members with mail and telephone techniques indicates that typical mail rates of response range from 5 to 10 percent, while typical mail/telephone combination rates range from 20 to 40 percent. Since responders to either of these approaches are almost certainly a biased subset of all releasees (probably toward the more stable and law-abiding end), a corrections department could not meaningfully interpret results from such incomplete returns unless it was willing to count all non-responders as unemployed or otherwise failing to perform adequately.

MEASURE 15: RECIDIVISM

15A: RELEASEES REINCARCERATED IN PRISON WITHIN X YEARS / TOTAL NUMBER OF RELEASEES DURING BASE PERIOD

DESCRIPTION

We recommend a measure based on reincarceration as the basic recidivism measure because the data for it are routinely available to corrections departments. Data for any measure based on arrests or convictions are presently difficult to obtain and, if available, are of uncertain completeness. They may also pose some serious problems of coding and interpretation. However, if and when a state develops an operational statewide reporting system containing arrest and conviction information, it should consider the alternative measures discussed below. The alternative measures, based on arrests and reconvictions rather than reincarcerations, capture a higher proportion of releasees' criminal behaviors, since many arrests and some reconvictions do not lead to reincarceration but should still be counted as evidence of new crimes. Recidivism measured by arrests or convictions will also appear faster than incarceration data since the legal system takes some time to process offenders from arrest to reincarceration. Thus measures based on rearrest or reconviction meet criteria of completeness and timeliness better than a reincarceration-based measure and should be preferred if the data exist to calculate them. Finally, all measures of recidivism probably undercount new crimes by releasees, since many crimes will never result in arrest. A statewide reporting system may omit minor offenses involving only jail sentences; Minnesota's system does not record these incidents. And measures based on known crimes in a single state or jurisdiction leave out any new crimes committed elsewhere.

We recommend Measure 15a based on reincarcerations because, to counterbalance its obvious gaps in coverage, Measure 15a has one overwhelming advantage: corrections departments already have complete access to the data relevant to constructing the measure for returns to prison in the same state. No other recidivism measure is so easily and reliably available. (Correction department files do miss reincarcerations in other states and county or city jail terms in any state.)

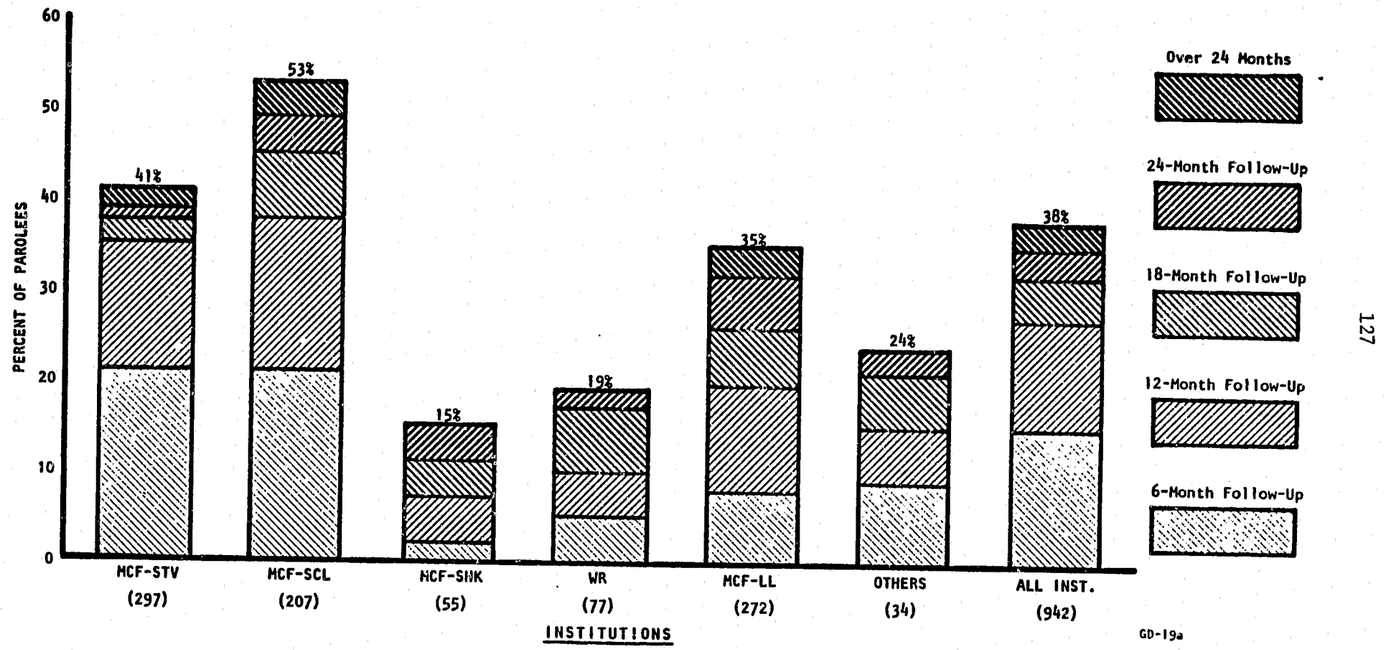
For the measure to be timely for corrections purposes, a one-year reporting period seems appropriate, followed by annual reestimation of the failure rate for each cohort of releasees at 24 and 36 months post-release.

Each releasee should have the same amount of time to demonstrate his success or failure. That is, each releasee should be assessed 12, 24 or 36 months after the date he is actually released. Unfortunately those corrections departments which presently measure recidivism most often use the percentage of releasees during a one-year base period who were reincarcerated by the end of some subsequent year. Some people released early in the base period year will have had as much as one full year more in the community than those released toward the end of the base period. Thus, their success or failure will not be fully comparable to persons released late in the base year. Measure 15a avoids this lack of uniformity in the follow-up period for assessing success or failure.

A measure based on reincarcerations will include non-crime parole revocations as well as releasees returned for new crimes. A corrections department can decide to ignore this distinction, or to report each type of reincarceration separately. Exhibit 6-7 and 6-8 from Minnesota

Exhibit 6-7

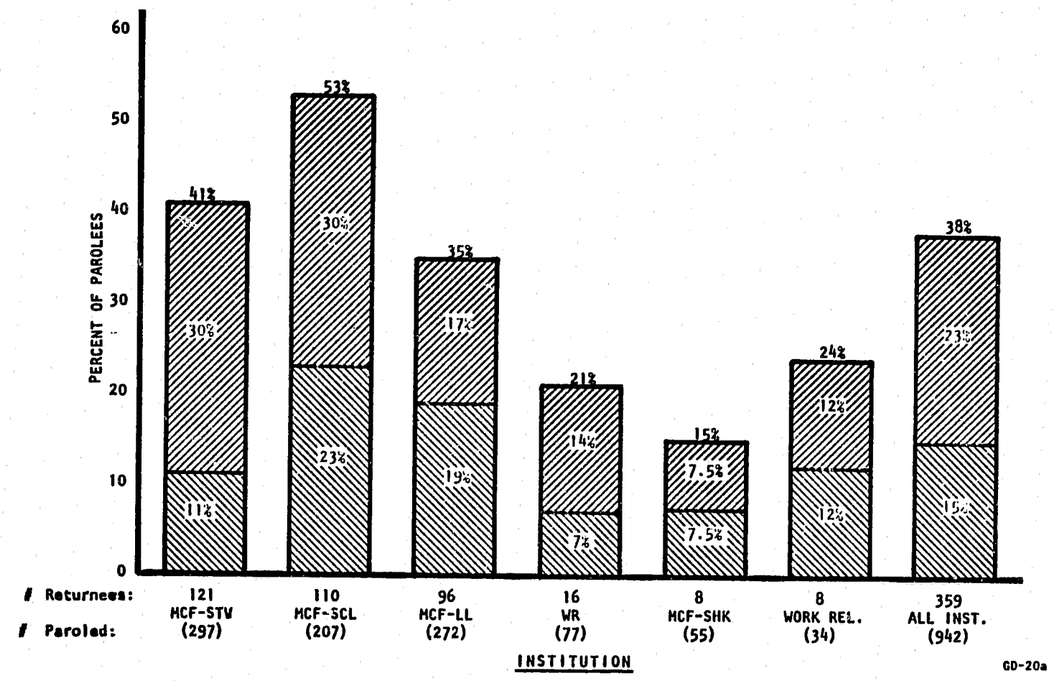
PERCENTAGE OF RETURNS TO INSTITUTIONS
As of January 1, 1980 (N-942)



Source: Minnesota Department of Corrections Report, March, 1980.

Exhibit 6-8

PAROLE RETURNS (24-36 MONTH FOLLOW-UP)
359 (38%) Returnees of 942 Paroled in 1977



Source: Minnesota Department of Corrections Report, March, 1980.

Department of Corrections illustrate both ways of displaying Measure 15a. Exhibit 6-7 shows combined reincarcerations, while Exhibit 6-8 separates parole revocations from returns for new crimes. A department may also want to divide revocations into those due to renewed criminal activity and those due to technical violations. This distinction may be particularly important for policy-making because a corrections department can set policy governing revocations, perhaps discouraging returns to prison for non-criminal parole violations.

POTENTIAL DATA SOURCES

Corrections departments will have all the data for Measure 15a in individual inmate records. Each record shows the data of release. If the inmate returns to prison, the record will also show the date of reincarceration. To construct Measure 15a the analyst uses either manual or computerized techniques to calculate the time lapsed between the two dates for reincarcerated offenders, and counts those who do not return within a specified period of time post-release as "successes." (See below under "Data Cost and Quality" for ways to make these calculations.) Since most corrections departments already routinely record the number of releases during a given quarter or year, they already have the denominator of Measure 15a.

USING THIS MEASURE

The simplest use of Measure 15a takes all inmates released during a given year and assesses what percentage have returned to prison within 12 months. Changes in performance would show up as increases or decreases in the recidivism rate from one year's releasees to the next year's group.

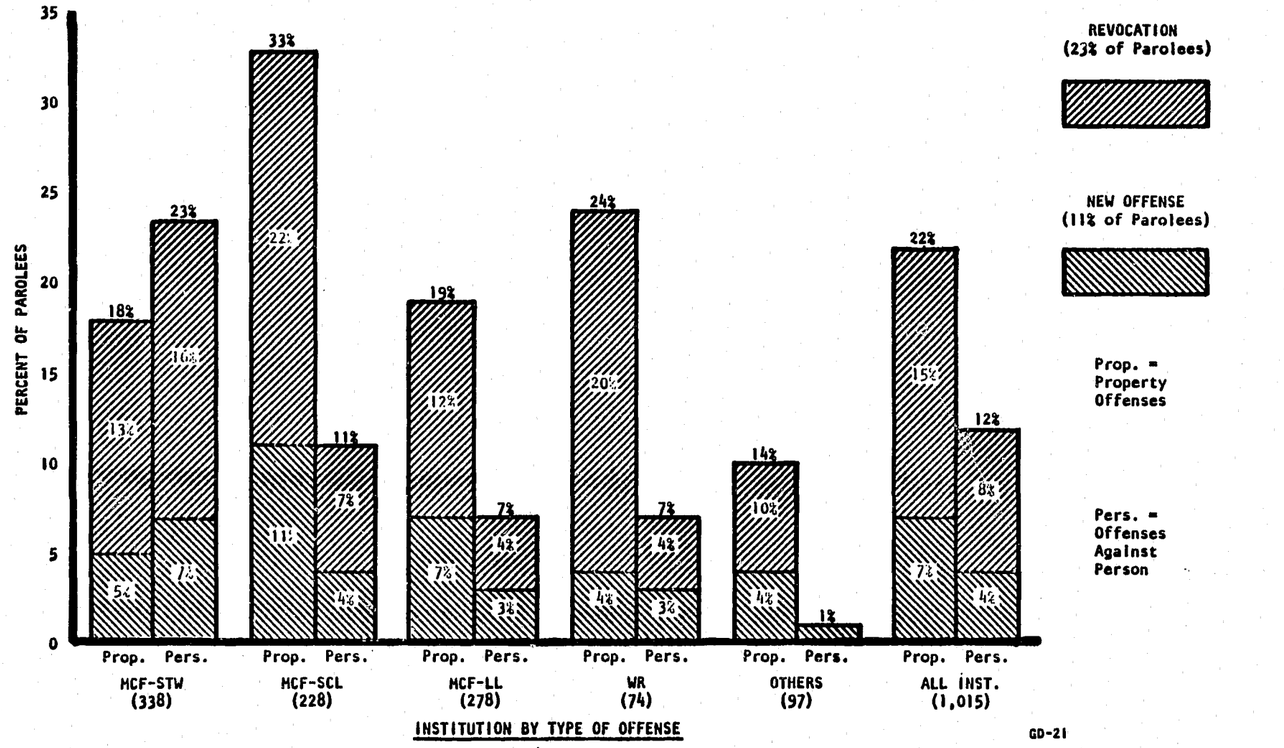
Most corrections departments want feedback on recidivism quickly, but also want to know what proportion of releasees return over a longer time span such as two or three years. Measure 15a can provide this feedback by tracking the releasees from a particular year through several follow-up periods. Exhibit 6-7 illustrates such a tracking system developed by the Minnesota corrections department. Minnesota assesses the proportion recidivating at 6-month intervals up to two years post-release. By examining the patterns of when people return to prison, officials may be able to spot times during which releasees are particularly vulnerable to recidivating. Parole programs might then focus on relieving the strains of these periods. The bulk of returns to prison appear to occur during the first year post-release, and thus may be amenable to change by changing parole practices.

Exhibit 6-7 and 6-8 both use Measure 15a to identify differences in performance among facilities. Each bar represents a different Minnesota facility. Performance differences like those in Exhibits 6-7 and 6-8 should stimulate thinking about how to bring the poorer performers more in line with the better ones.

Corrections departments might also be interested in the relative success or return to crime of releasees who participated in particular training programs while in prison, or of those who went out on parole versus those unconditionally released. These uses of Measure 15a parallel those of Measures 14a and 14b on post-release employment success. Each assesses the post-release effects of prison programs, and may lead to improvement efforts in programs with poorer records.

Exhibit 6-9

RETURNS BY TYPES OF OFFENSE AND VIOLATION
349 (34%) Returned of 1015 Parolees



Source: Minnesota Department of Corrections Report, March, 1980.

Other comparisons likely to interest corrections managers would compare the post-release employment of inmates with certain characteristics, such as those young and old at release, or those whose commitment offense involved property versus crimes against persons. Exhibit 6-9 shows that the rate of return to prison of releasees originally convicted of property offences exceeds that of offenders against persons, so the greatest share of rehabilitation activities should be directed at the property offenders.

DATA COSTS AND QUALITY

Developing a computer program to search corrections records and produce the appropriate calculations will give the most reliable and easiest readings on Measure 15a. Savings arising from repeated use of the measure will more than offset the initial investment to develop the computer program. Minnesota Department of Corrections has recently developed such a program, which produces reincarceration rates (Measure 15a) for each 6-month period up to 24 months post-release for all offenders released in a given calendar year.

The program performs the following operations: 1) identifies all inmates released during the base period; 2) searches records for each releasee to see if he has returned to prison by the date of the computer search; 3) compares date of return to date of release for all recidivists, and calculates number of days between release and return; 4) classifies all returnees into categories (e.g., return within six months, returned within 18 months); 5) formats and prints out the data display (Exhibits 6-7, 6-8 and 6-9). Minnesota programmed several other reports at the same time they programmed the recidivism data for Measure 15a. Their experience

suggests that between 20 and 25 days of programmer time would be adequate to develop computerized reporting of Measure 15a. All departments with computerized inmate records should be able to develop such a procedure. After making the initial investment, subsequent uses of Measure 15a would require no more than one day of analyst time each time one ran the program.

If a department does not computerize inmate records, it could still use manual procedures on a sample of releasees to estimate recidivism on the basis of actual time elapsed since release. All data necessary for this task should be in inmate files. Based on our experience with manual searches of inmate records in both North Carolina and Minnesota, it will take approximately two staff days for each 100 inmates to locate records, extract needed information, calculate time from release to return for inmates recidivating, and format a data display of the results. Manual retrieval will probably cost more eventually than computerized analysis, especially for large systems where one would need to manually check the recidivism history of many hundreds of inmates. But in lieu of computerized inmate records, manual calculation of Measure 15a is possible, and better than nothing.

ALTERNATIVES

Measure 15a represents a compromise between a desirable and an obtainable recidivism measure. As described above, Measure 15a has numerous weaknesses which result in underestimates of actual recidivism. If a state wants a more accurate indicator of new criminal activity among its prison releasees, measures including arrests and/or convictions and

contacts with the law in other states would be preferable to one based solely on same-state incarcerations. These would be:

MEASURE 15B: RELEASEES REARRESTED WITHIN X YEARS
ALL RELEASEES DURING BASE PERIOD

MEASURE 15C: RELEASEES RECONVICTED WITHIN X YEARS
ALL RELEASEES DURING BASE PERIOD

We considered the following possible sources of data for information on arrests and convictions. Each has weaknesses, but states interested in Measure 15b and 15c might be able to reduce or live with the drawbacks of one or both alternatives.

FBI "rap sheet" data, either manual or computerized. Local law enforcement jurisdictions send information on felony and serious misdemeanor arrests, convictions and incarcerations to the FBI. The FBI maintains a "rap sheet" on each criminal. Fingerprint codes provide positive identification of individuals. The FBI has both computerized and non-computerized rap sheets. Use of non-computerized rap sheets for research purposes means an FBI employee must find large numbers of rap sheets, reproduce them, and send them to the researcher. Some state corrections departments have access to the computerized rap sheets through special LEAA computerized criminal history (CCH) grants.

The advantages of rap sheet data are:

- They include information on arrests and convictions as well as reincarcerations.
- They contain data from all states.

The disadvantages are:

- Completeness of reporting depends on local and state agencies, which are supposed to report felonies and

"serious misdemeanors" (defined locally, not nationally), but which vary greatly in their reporting diligence and completeness. The rap sheets miss many arrests, convictions and incarcerations, and also do not tell, for approximately half the arrests recorded, whether the arrest led to conviction or incarceration.

- The non-computerized rap sheets require a lot of FBI time when used for research purposes. The FBI has sometimes been willing to provide large numbers of rap sheets at one time, but sometimes it has not been willing. The more we tried to get a reliable answer about whether states could count on using FBI rap sheets for data to compute Measures 15b and 15c, the more people told us one could not predict how the FBI would react. States interested in using this data source will have to negotiate with the FBI themselves.
- For the computerized rap sheets, which are the only practical source of rap sheet information on a routine basis, lag times of between eight months to two years occur between the actual event and the time it appears on the computerized record.

State criminal identification bureau records. The LEAA push to develop computerized offender-based tracking systems (OBTS) may eventually result in a statewide data base that would contain arrest and conviction as well as incarceration data. Unfortunately for the purposes of computing Measures 15b and 15c, some states do not plan to develop OBTS and development has been slow in states that are trying.

Minnesota, one of our test sites, has an operational OBTS. It is supposed to record felony arrests and all subsequent events (conviction, probation, incarceration, sentence length, parole or release) in that arrest cycle. Arrests not resulting in conviction are dropped after two years. Computerization began in mid-1977.

We tested the Minnesota OBTS as a data source for constructing Measures 15a, 15b and 15c. We found it feasible to use but not ideal. A state interested in pursuing OBTS to get data for these measures should be alert to the following possible problems which may or may not occur in a state's OBTS.

- "Computerized" means only that a computer searches OBTS files to see if the person on whom you want information has a criminal record. If he does, OBTS prints out all its information. An analyst must still read each record to determine what has happened to each person since release. This process takes time, and pressures for sampling releasees rather than examining every releasee's record.
- Parole dates did not always match those from the corrections department.
- Dates sometimes do not coincide, so that one finds records of convictions, incarcerations and releases without necessarily finding the original arrest, or finds a new arrest when there is no notation that the person has been released from prison (often these are formal charges made after incarceration for crimes committed earlier).

- Information is packaged in "arrest cycles," showing all events (conviction, probation, incarceration, release) related to the particular arrest in question. The sequence of events is sometimes confusing, as when a person already in prison for Charge A is "arrested" for Charge B, which he committed before entering prison, while still serving a prison term.
- Some felony arrests are not reported to state identification bureau files (in Minnesota, these include crimes for which an offender is apprehended on a warrant or citation rather than being officially booked).
- Some misdemeanor arrests get into the files, although they are not supposed to be there.
- OBTS does not record reincarcerations due to parole revocation unless there are new criminal charges (30% of the reincarcerations in our random sample of 100 inmates released in 1978 were revocations that did not appear in OBTS records).

If a state has a computerized OBTS system, one day of analyst time will be needed to draw a random sample of releasees, one to two days of clerical time per 100 releasees to retrieve a computerized record on each releasee from the state criminal identification bureau files; three to five days of analysis time per 100 releasees to abstract the relevant data from the computerized records and construct the measures. This totals five to eight days of mostly professional time for each 100 sampled releasees per year. Sample size will depend on the number of releasees and the number of years you want to follow-up. Sampling appears necessary because analyzing the

OBTS records and constructing the measures takes so much time. Data can be reliably abstracted from the computerized records, but it takes time and care.

Finally, to assess the completeness of OBTS records we checked our OBTS findings on reincarceration against the Minnesota Corrections Department's own reincarceration records. For a sample of 99 randomly selected 1978 releasees, we found that OBTS records contained 14 reincarcerations, while corrections department records showed 20. OBTS records thus underestimate reincarceration by 30 percent. A department using its own state's OBTS should conduct a similar test for completeness before relying on OBTS data. It should seek reasons for the underestimation, and correct estimates from OBTS data if possible. For instance, all six reincarcerations missed by OBTS arose from parole violations which didn't include new criminal charges. Minnesota could therefore feel quite confident in OBTS completeness with respect to criminal charges leading to reincarceration. Because construction of the measure from these data takes considerable time and effort even if a state has a functional computerized OBTS system, we do not recommend it as a primary measure. But OBTS does provide a viable possible source of data to use in constructing Measures 15b and 15c. We, therefore, include this data source and Measures 15b and 15c which OBTS makes possible, as alternatives for states to consider if they want measures of recidivism beyond those based on reincarcerations.

CHAPTER SEVEN

COSTS

In Chapters 2 through 6 we discussed each measure and estimated the annual costs, accuracy, and possible uses for each. All cost estimates derive from our tests of measurement procedures in Minnesota and North Carolina. This chapter describes start-up costs for implementing any system, plus costs for three different measurement packages--a basic package, a package which includes an inmate survey, and a comprehensive package covering several desirable alternative measures as well as the basics. A corrections agency might decide to begin its performance measurement system with the smallest package and subsequently build up to the more extensive (and expensive) options. For the sake of consistency, the annual cost estimates in each case refer to a facility housing 500 inmates. Departments can adjust our figures for smaller or larger facilities, or for their entire system. After presenting the three measurement packages, we give estimates of cost for a relatively small corrections system (2000 inmates) and a relatively large system (15,000 inmates).

START-UP COSTS

Chapter 1 outlined a procedure for setting up a performance measurement system, including a work group of high-level corrections managers and a coordinator. With four people in the work group, plus the coordinator, each contributing about 2 months of effort to fully consider each measure,

the initial phase of implementation would require about 10 to 12 months of staff time. The coordinator should expect to spend at least another 3 months to work out details, develop procedures and reporting systems, alert facility personnel to data collection requirements, and similar activities. Thus departments should expect start-up expenses to run about 12-15 months of reasonably high-level staff time.

THE BASIC PACKAGE

The basic package includes primarily measures for which corrections departments are likely to have readily available data, plus the post-release measures (14a, 14b, 15a). The post-release measures require data already available in other state agencies or in corrections departments. However, constructing the measures themselves will take some significant additional computer work. Our cost estimates assume that you now do not log or computerize any of the information necessary for the basic package measures. If you do presently log or computerize information for any of the measures, you can reduce our estimates for the cost of our measurement package accordingly. Your only investment for information already computerized will be the programming time to develop routine reports and data displays.

Measures included:
1. Escape frequency (escape rate)
2a. Escape seriousness (new crimes)
3a. Victimization (assaults and homicides only)
5a. Overcrowding (percentage overcrowded)
5b. Overcrowding (privacy)
6a. Accidents/Injuries (OSHA-defined)
6b. Accidents/Injuries (OSHA-defined)
7a. Sanitation (deficiencies)
7b. Sanitation (serious health hazards)
8a. Fire safety (deficiencies)
8b. Fire safety (number of fires)
9a. Physical health status (hospitalizations)
9b. Physical health status (sick days)

9c. Physical health status (deaths)
10a. Mental health status (suicides/attempts)
10b. Mental health status (medications)
11a. Basic skills acquired (G.E.D.s)
11b. Basic skills acquired (literacy, etc.)
12. Vocational skills acquired
14a. Post-release employment success (earnings)
14b. Post-release employment success (stability)
15a. Recidivism (reincarceration only)

Cost to log all necessary entries: 5 days per year, if a log entry takes 5 minutes to make. (See Appendix B for samples of log formats to use for recording the information needed for these measures.) These entries will of course be distributed over many corrections personnel, depending on which information for which measure is being logged. We base this estimate on the frequency of most of the phenomena being logged. In our tests most incidents for the measures in this package occurred only occasionally to a minority of inmates.

Cost to make quarterly tallies for each measure: 5-7 staff days per year per facility. This estimate assumes one hour per quarter for each measure requiring quarterly tallies (Measures 1, 3a, 6a, 6b, 9a, 9b, 9c, 10a, 10b, 11a, 11b, 12).

Cost for data analysis and preparation of data displays: 20-25 staff days per year. This estimate assumes 5-7 staff days to prepare Measures 14a and 14b on post-release employment success, but does not include the additional 5 staff days of Department of Economic Security/Department of Revenue time needed to supply the data. Much of this data analysis time will not expand significantly whether you do the job for a single 500-bed facility or a whole system. The larger the system, the less time per facility central office data analysts will have to spend to produce the same analyses. Once the data from each facility are reported to the central

office, our tests indicate that even for a system the size of North Carolina's (15,000 inmates and 79 facilities), data analysis would not take more than 2 or 3 months of staff time every year.

TOTAL COST: 30-40 staff days per year for a 500-bed facility, assuming you do not now assemble any necessary information anywhere.

THE SURVEY PACKAGE

This package adds a survey of a sample of inmates to the basic package. It enables a department to obtain data for these additional measures:

3a. Victimization (rates of all types)
3b. Victimization (proportion of inmates victimized)
3c. Victimization (perceptions of safety)
4a. Prison atmosphere (perceptions)
4b. Prison atmosphere (CIES)
5e. Overcrowding (perceptions)
9d. Physical health status (screening factors)
9e. Physical health status (body systems)
10c. Mental health status (symptoms of mental distress)

These estimates assume you will conduct follow-up medical examinations at the same time you administer the survey. Since inmate physical examinations are expensive to conduct and to analyze, we give two costs: (1) the "survey" package costs excluding Measures 9d and 9e, and (2) including 9d and 9e. All costs are based on a 125-inmate sample of a 500-bed facility. Costs for the survey package in addition to the costs for the basic package are:

Cost to schedule and transport (if necessary) inmates, and schedule appropriate medical, psychological and other professionals: 5 staff days without 9d and 9e; 10 staff days including 9d and 9e.

Cost to administer the survey to inmates: 20-25 psychology staff days. Inmates will each spend between 1 and 2 hours completing the survey form and medical examination.

Cost to take medical histories and do laboratory tests (nursing) and to give physical examinations (physicians) for Measures 9d and 9e: 20 days of nursing staff time and 20 days of physician time to examine a sample of 125 inmates.

Costs for data preparation (coding), data analysis, and preparation of data displays: 15 staff days without Measures 9d and 9e; 35-45 staff days with Measures 9d and 9e included. Two thirds of the staff time in either case is taken up by coding and data preparation. Analysis is computerized and relatively simple. $200-$300 of computer time will suffice to produce the necessary analyses.

COST:	SURVEY ONLY -	2-2.5 staff months per year for a sample of 125 inmates
COST:	SURVEY PLUS MEDICAL EXAMINATION -	4.5-5.5 months of staff time per year for 125 inmates
TOTAL COST:	BASIC PACKAGE PLUS SURVEY -	3-4 months
TOTAL COST:	BASIC PACKAGE, SURVEY AND MEDICAL EXAMINATION -	6-7.5 months

THE COMPREHENSIVE PACKAGE

This package contains all the measures in the basic package and the survey package, plus the following additional desirable measures:

2b. Escape seriousness (using base expectancy scores)
5d. Overcrowding (program beds)
6c. Accidents/injuries (all)
6d. Accidents/injuries (all)
8c. Fire safety (dollar loss)
8d. Fire safety (injuries)
13a. Service delivery (diagnoses)
13b. Service delivery (medical referrals)
13c. Service delivery (appropriate treatment)
15b. Recidivism (rearrests)
15c. Recidivism (reconvictions)

APPENDIX A

SURVEY PROCEDURES

AND

QUESTIONNAIRE FORMATS

FOR

MEASURES

3a

3b

3c

4a

4b

5e

10e

APPENDIX A

SURVEY PROCEDURES AND QUESTIONNAIRE FORMATS FOR
MEASURES 3a, 3b, 3c, 4a, 4b, 5e, and 10e

This appendix contains step-by-step procedures for conducting an inmate survey, plus questionnaire items and scales designed to provide data for Measures 3a, 3b and 3c (victimization and fear of victimization); Measures 4a and 4b (prison atmosphere); Measure 5e (inmates' sense of overcrowding); and Measure 10e (symptoms of mental distress).

PROCEDURES FOR CONDUCTING A SURVEY

1. Decide which measures you want to include.

The working group assembled to guide the performance measurement effort should decide which goal areas they want to measure using questionnaire techniques. They should then read the questionnaire formats provided in this appendix and decide which specific items or scales they want to use, whether they want to modify any items (the CIES and Hopkins Symptom Check List scales should not be modified since their validity depends on using them as they were developed), and, if so, what new items they wish to substitute.

2. Decide whom to survey and how and when you will administer the survey form.

The three issues of whom, how, and when to survey are interrelated. The major alternatives, along with their advantages and disadvantages, are:

- If every inmate must keep a private appointment with a counselor, teacher, unit administrator, or any other

staff person at least once after admission, administer the survey form at the time they keep this appointment. You can take a random sample of inmates, or survey all inmates. The biggest advantage of this option is that you will not have to arrange separate procedures for giving the survey. Its drawbacks are that data collection may extend over a long time period (if the appointment process goes on all year long), and that inmates will probably have spent varying periods of time in prison when they take the survey. You can correct for the former drawback by sampling only those appointments scheduled for a single month or two during the year. The latter drawback will disappear if the appointments routinely occur after some specified time period, such as six months after admission and annually thereafter. Unfortunately, although this alternative for administering the survey form has the lowest need for additional procedures, most corrections departments do not now provide all inmates with a routine annual review or private appointment with a prison official. Few departments will, therefore, be able to take advantage of this mode of administering an inmate survey at the present time.

- Administer the survey to a sample of (or all) inmates as a routine part of pre-release preparations. This option will bias your data toward the responses of shorter-term inmates since, in any given year, more short-termers get out than long-termers. Also, if you use a pre-release administration, you will not be able to use Measure 10e (symptoms of mental distress) since inmates' mental states at release differ considerably from whatever mental distress they may feel during the bulk of their sentence. Measure 10e will provide the most meaningful feedback for decision-making about prison conditions only if it reflects the symptoms of mental distress occurring while the corrections department can still do something about them (i.e., while the inmates experiencing distress still have some significant part of their sentence left to serve).

- Create special procedures to administer the survey individually to a sample of inmates each year. This option gives you a reading on all the inmates in prison at a given time, regardless of how long they have been or will be there. The performance measurement coordinator should decide how many inmates to sample from each facility and should set up computerized or other procedures for selecting a random sample of inmates. If inmates must be transported to a facility other than the one where they live, transportation arrangements and scheduling will have to be done. Schedules should also be created for the staff people who will administer the survey form. See the presentation of Measure 3 in Chapter 3 for cost estimates for administering a special survey, based on the test of these procedures in North Carolina.

3. Develop a written protocol describing every step in the survey procedure and the personnel involved.

You will need to communicate the details of the survey procedure to each staff person involved. The protocol should include a justification for the survey effort and an explanation of how each person's assignment, in connection with the survey, assists the overall effort. The protocol should cover each step in the survey procedure, from sample selection through explanations to inmates, to where to send the survey forms after inmates have completed them. After you send the protocol to each staff member involved in the survey and give them a chance to read it, hold a meeting of relevant staff in each facility to give them a chance to ask questions and let the coordinator make sure that everyone understands what they need to do.

4. Use the first week of data collection as a trial period.

Assume that some parts of the survey procedure will go wrong in one or more facilities and use the first week of data collection to iron out any difficulties. Call the person in each facility who has primary data collection responsibility toward the end of the first week and discuss each step of the procedure, looking for things that have gone wrong or could go wrong. Work out ways to cope with these difficulties and share any solutions with the data collection personnel in other facilities.

5. Analyze and interpret the data.

Data analysis should follow the comparisons planned for each measure by the working group and coordinator. Interpretation can occur at two levels--the "eyeball" level and the level of formal statistical tests of significant differences. Technical staff should

apply formal significance tests to performance data, and should use the results to help management interpret data trends or patterns. Presentations to top management should probably be done with graphic displays rather than with finely detailed tables of numbers.

6. Arrange feedback sessions for all personnel involved in data collection.

The performance measurement coordinator should take special pains to assure that all personnel involved in the data collection effort learn the results of the survey and their implications for future action. Obviously, you should inform each facility superintendent and top corrections officials of the survey findings, but feedback directly to the people who do the actual work of data collection places their activity in a more meaningful context and helps increase motivation to do a thorough job of data collection.

Sampling Considerations

It is often not necessary to look at every instance of a behavior or every person in a population to get a good idea of performance. For many measures, samples of 100 to 200 inmates will give a sufficiently accurate picture for a whole system. We have suggested random samples to assess a number of measures proposed in this manual (Measures 3a, 3b, 3c, 4a, 4b, 5e, 9d, 9e, 10e, 15b and 15c). We have not recommended specific sample sizes because sample size depends on several factors which may vary quite a bit among corrections departments. Instead we provide the following discussion of sampling considerations. This section gives some simple guidelines for making sampling decisions. They will serve corrections departments in gaining a general idea of their sampling needs. However, because of the

number and complexity of sampling issues, corrections departments should consult a sampling expert before beginning a measurement effort based on sampling.*

1. How big a difference do you want to detect? The smaller the difference you want to detect with confidence, the larger the sample you need. For instance, suppose Manager A believes a 20% increase in assaults is significant and should trigger managers' efforts to reduce assaults, but is not worried about any increases of less than 20%. Manager B believes an increase in assaults of 5% or more is significant. To obtain the same level of confidence in the findings of a victimization survey, Manager B would need a larger sample than Manager A. As a first step in developing a sampling plan, the working group directing the performance measurement effort should specify for each measure how big a difference they want to be sure to detect.

2. What level of confidence do you want to feel about the differences you detect? The more certain you want to be that the differences you find really exist, the larger the sample you need. For instance, suppose Manager A (in the above example) wants to be 99% sure that a 20% or greater difference is really there, while Manager B only wants to be 90% sure that his 5% difference exists. The level of confidence you select is important because decisions to invest resources to correct poor performance depend on your findings. Thus Manager A is saying he only wants to act to reduce assaults if he detects a 20% or greater

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* You may also want to read a simple introduction to sampling such as Slonim, N.J. Sampling: A Quick, Reliable Guide to Practical Statistics. New York: Simon and Schuster, 1960.

increase in assaults from one time to the next, and he only wants one chance in a hundred (1%) of making the wrong decision and taking action when assaults really haven't increased that much. Manager B, on the other hand, wants to act as soon as the increase is 5% or more and is willing to be wrong (action was not really needed) one time out of ten (10%). Managers A and B have thus made policy decisions about how aggressively they want to pursue reduction of inmate victimization. They inform the person responsible for planning the sample of their decisions. But the sampler still needs one more piece of information before choosing a sample size.

3. How often does the phenomenon you want to detect occur in the population? The more infrequent the phenomenon, the larger the sample size you will need to detect a specific difference at a specific level of confidence. Suppose that relatively rare phenomena such as assaults happen to only 2-4% of the prison population during any one month (this is about the frequency we found in our tests). You will need quite a large sample to start with in order for it to contain enough victimized inmates to give you confidence that the rate of assaults has indeed changed or remained constant. For instance, in a sample of 100 inmates, you could expect to find 2-4 inmates who had been victimized within the last month. The last time you took a survey with a 100-inmate sample you found 3 victimized inmates. This time you find 4 victimized inmates. How much confidence do you feel in claiming that the number of victimized inmates has increased 33%? Alternatively, if you had a sample size of 1000 inmates, the change from 30 to 40 victimized inmates would give you somewhat greater confidence that the increase really happened.

If every inmate can give you a reading on the phenomenon you want to measure, your sample size may be quite small. For many of the measures assessing attitudes and perceptions (Measures 3c, 4a, 4b, 5e), every inmate has attitudes and perceives the environment in which he lives. Sample sizes for these phenomena are governed by the least frequent response you expect. See the discussion of sample sizes for Measures 14a and 14b for an illustration of how this works.

4. Desired subsamples - a final consideration. All of the foregoing discussion assumes you want to detect differences for the prison population as a whole. But suppose you want to find out about performance in each facility, or among all facilities at each security level (as we have suggested in relation to many measures in this manual). The same sampling considerations apply to subsamples as to whole samples. If you want to detect differences of the same size with the same level of confidence in subsamples as you have just decided for the whole sample you will need to apply the same sampling decision rules to each subsample of interest.

As can be seen from even this very simple presentation of sampling considerations, determining appropriate sample size is a complex task if you want to do it scientifically. Some give-and-take is of course possible between policy-setters and samplers. For instance, once the sampler shows the policy-setter the sample size required to fulfill the decisions made on points 1-4, the policy-setter may decide to live with less precision, bigger detectable differences, less confidence in results, or fewer subsamples to reduce the sample size to within budgetary limits. Sampling is often pursued in this ad hoc manner. But if you want to be correct (at least to begin with), consult a sampling expert.

SURVEY OF PRISON INMATES

This survey asks about things
that sometimes happen to prisoners.
Please answer all questions to the
best of your own knowledge.

DO NOT PUT YOUR NAME OR NUMBER ON THIS SURVEY.

This questionnaire provides data for Measures 3a, 3b, 3c and 4a:

Measure 3a uses Questions 12, 16 and 24
Measure 3b uses Questions 12, 16 and 24
Measure 3c uses Questions 7, 8, 9, 13 and 21
Measure 4a uses Questions 25 through 35

Questions 1 - 29 comprise the survey used in the test of procedures for Measures 3a, 3b and 3c done in North Carolina.

SURVEY OF PRISON INMATES

1. How old were you on your last birthday? (Put an X in the right box.)

☐ under 18 ☐ 18 to 21 ☐ 22 to 25 ☐ 26 to 30 ☐ over 30

2. What is your race?

☐ White ☐ Indian ☐ Spanish-speaking
☐ Black ☐ Asian ☐ Other

3. How much time have you already served in prison this time?

☐ less than 6 months ☐ 2 years up to 5 years
☐ 6 months up to 1 year ☐ 5 years or more
☐ 1 year up to 2 years

4. How much longer do you expect to be in prison this time?

☐ less than 6 months ☐ 2 years up to 5 years
☐ 6 months up to 1 year ☐ 5 years or more
☐ 1 year up to 2 years

5. Are you now living in a maximum, medium or minimum security prison?

☐ maximum ☐ medium ☐ minimum

6. Do you live in a: ☐ single cell (just you)
☐ cell with one cellmate besides yourself
☐ cell with more than one cellmate
☐ dormitory

We would like to know how safe you think the prison is where you live now (the prison you've just come from, not the Diagnostic Center). Please answer the rest of this questionnaire about the prison where you live now.

*7. Do you feel that your personal property is:

☐ very safe ☐ pretty safe ☐ not very safe ☐ not at all safe

*8. Do you feel that you are safe from being hit, punched or assaulted by other inmates?

☐ very safe ☐ pretty safe ☐ not very safe ☐ not at all safe

*Measure 3c

*9. How much do inmates assault each other where you live now?

☐ almost never ☐ some ☐ a lot

10. When was the last time you know about that an inmate assaulted another inmate where you live now? (Mark the line with an X to show how long ago.)

yesterday | 1 week ago | 1 month ago | 6 months ago | ☐ more than 6 months ago | ☐ don't know or can't remember

11. When they are assaulted, do inmates in your prison usually tell a guard or officer, or handle it themselves?

☐ usually tell a guard ☐ about half and half ☐ usually handle it themselves

**12. Has anyone assaulted you within the last month?

☐ No ☐ Yes → How many times within the last month?

☐ only once ☐ 2 or 3 times ☐ 4 times or more

*13. How much do inmates strongarm or try to intimidate each other where you live now?

☐ almost never ☐ some ☐ a lot

14. When was the last time you know about that someone strongarmed or tried to intimidate another inmate where you live now? (Mark the line with an X to show how long ago.)

yesterday | 1 week ago | 1 month ago | 6 months ago | ☐ more than 6 months ago | ☐ don't know or can't remember

15. When they are strongarmed, do inmates in your prison usually tell a guard or officer, or handle it themselves?

☐ usually tell a guard ☐ about half and half ☐ usually handle it themselves

**16. Has anyone strongarmed or tried to intimidate you within the last month?

☐ No ☐ Yes → How many times within the last month?

☐ only once ☐ 2 or 3 times ☐ 4 times or more

*Measure 3c
**Measures 3a and 3b

17. How much do inmates use drugs where you live now?

☐ almost never ☐ some ☐ a lot

18. When was the last time you know about that someone used drugs where you live now? (Mark the line with an X to show how long ago.)

yesterday | 1 week ago | 1 month ago | 6 months ago | ☐ more than 6 months ago | ☐ don't know or can't remember

19. When another inmate tries to get them involved in using drugs, do inmates in your prison usually tell a guard or officer, or handle it themselves?

☐ usually tell a guard ☐ about half and half ☐ usually handle it themselves

20. Has anyone tried to get you involved in using drugs within the last month?

☐ No ☐ Yes → How many times within the last month?

☐ only once ☐ 2 or 3 times ☐ 4 times or more

*21. How much do inmates force other inmates into sexual acts where you live now?

☐ almost never ☐ some ☐ a lot

22. When was the last time you know about that someone forced another inmate into sexual acts where you live now? (Mark the line with an X to show how long ago.)

yesterday | 1 week ago | 1 month ago | 6 months ago | ☐ more than 6 months ago | ☐ don't know or can't remember

23. When another inmate tries to force them to have sex, do inmates in your prison usually tell a guard or officer, or handle it themselves?

☐ usually tell a guard ☐ about half and half ☐ usually handle it themselves

**24. Has anyone tried to force you to have sex with him within the last month?

☐ No ☐ Yes → How many times within the last month?

☐ only once ☐ 2 or 3 times ☐ 4 times or more

*Measure 3c
**Measures 3a and 3b

†25. Do you think that more officers or guards would make your prison unit a safer place?

☐ No ☐ Yes

†26. Do you feel the officers or guards in your prison unit:

☐ make violence less likely ☐ don't make any difference ☐ make violence more likely

†27. In your experience, do most serious threats of violence happen without witness, in front of inmates, or in front of officers?

☐ no witnesses ☐ in front of inmates ☐ in front of officers

†28. Have inmates gotten punished for most of the violent or extortionist things they do, for some, or do they get away almost with all of them?

☐ get punished for most ☐ about half and half ☐ get away with most of them

†29. How good are the staff (officers, guards) in your prison unit at:

	Very good	Pretty good	Pretty bad	Very bad
A. Knowing what goes on among inmates	☐	☐	☐	☐
B. Controlling violence among inmates	☐	☐	☐	☐
C. Controlling forced sex among inmates	☐	☐	☐	☐
D. Controlling strongarming or extortion	☐	☐	☐	☐
E. Being consistent about enforcing rules	☐	☐	☐	☐
F. Enforcing rules fairly and evenhandedly for all inmates	☐	☐	☐	☐
G. Responding to inmate requests or complaints	☐	☐	☐	☐
H. Catching and punishing the real "troublemakers" and "operators" among inmates.	☐	☐	☐	☐

†Measure 4a, staff control aspect.

The following questions ask you to use several rating scales. Below is an example of how these scales are used. This particular example involves rating today's weather.

Example: Today's Weather

Good	___ X ___:___:___ ___ ___	Bad
Cold	___ ___ ___: X :___ ___ ___	Hot
Comfortable	___ ___ ___:___:___ ___ X	Uncomfortable

In this example someone has checked the blanks to indicate that he thinks that today's weather is pretty good, neither hot nor cold, but very uncomfortable.

All of the questions below will be like the example. The more strongly you feel that the word at one end of the scale (good, cold, etc.) describes how you feel, the closer you should place your check mark toward that end of the scale.

+30. The room, cubicle, cell, or dormitory in which you live.

Good	___:___:___:___:___:___:___	Bad
Unattractive	___:___:___:___:___:___:___	Attractive
* Right number of people	___:___:___:___:___:___:___	Too many people
Unpleasant	___:___:___:___:___:___:___	Pleasant
Well Arranged	___:___:___:___:___:___:___	Poorly Arranged
Uncomfortable	___:___:___:___:___:___:___	Comfortable
Quiet	___:___:___:___:___:___:___	Noisy
* Uncrowded	___:___:___:___:___:___:___	Very Crowded
Dirty	___:___:___:___:___:___:___	Clean
Doesn't have bugs	___:___:___:___:___:___:___	Has bugs
No privacy	___:___:___:___:___:___:___	Enough privacy

*Measure 5e
+Measure 4a

+ 31. The rest of the prison.

	Good	Bad
	Unattractive	Attractive
*	Right number of people	Too many people
	Unpleasant	Pleasant
	Well Arranged	Poorly Arranged
	Uncomfortable	Comfortable
	Quiet	Noisy
*	Uncrowded	Very Crowded
	Dirty	Clean
	Doesn't have insects (roaches, etc.)	Has insects (roaches, etc.)
	No privacy	Enough privacy

+ 32. The food in the prison where you live.

	Enough	Not enough
	Boring	Interesting, varied
	Well cooked	Poorly cooked (burnt, underdone, etc.)
	Served at wrong temperature	Served at right temperature

+ 33. The medical services in prison.

	Available	Not available
	Never needed	Needed often
	Medical staff not helpful	Medical staff helpful
	Treatment helps your illness or complaint	Treatment doesn't help your illness or complaint

* Measure 5e
\+ Measure 4a

+ 34. Program activities.

	I usually have work to do	I do not work
	I do not go to school	I usually go to school
	I have a lot of time on my hands	I am busy most of the time
	There are special programs (drug programs, etc.) for inmates who need them	There are no special programs

+ 35. Recreational activities.

	Enough for everyone	Not enough for everyone
	Poorly scheduled	Well scheduled
	Many types of activity	Few types of activity
	Not fun	Fun

+ Measure 4a

CORRECTIONAL INSTITUTIONS ENVIRONMENT SCALE (ITEMS AND SCORING KEY) (Measure 4b)

Below is the scoring key for the subscales of the different forms of the Correctional Institutions Environment Scale. The Real program (Form R), Ideal program (Form I), and Expectation forms (Form E) are directly parallel, and all items are scored in the same direction on all three forms. The 36 items included in the Short Form are marked with an asterisk. An item listed as "true" (T) is scored 1 point if marked "true" by the individual taking the scale, and an item listed as "false" (F) is scored 1 point if marked "false". The total subscale score is simply the number of items answered in the scored direction.

The Correctional Institutions Environment Scale and Manual have been published and are available for interested users (Moos, 1974a). Users of the previous 86-item Form C of th CIES should note that slight changes have been made in the instrument as presented in the Manual (and in the scoring key in this Appendix) to increase its utility: (a) four items (numbers 84, 85, 87, and 90, unscored) were added to make the CIES an even 90 items; (b) the items were reordered both to facilitate hand-scoring and to make the first 36 items the Short Form (Form S) items.

INVOLVEMENT

Real, Ideal and Expectation Form Item Number	Scoring Direction	
1*	T	The residents are proud of this unit.
10*	T	Residents here really try to improve and get better.
19*	T	Residents on this unit care about each other.
28*	F	There is very little group spirit on this unit.

SUPPORT

2*	F	Staff have very little time to encourage residents.
11*	T	Staff are interested in following up residents once they leave.
20*	T	The staff help new residents get acquainted on the unit.
29*	T	The more mature residents on this unit help take care of the less mature ones.

Measure 4b cont'd.

EXPRESSIVENESS

Real, Ideal, and Expectation Form Item Number	Scoring Direction	
3*	T	Residents are encouraged to show their feelings.
12*	F	Residents tend to hide their feelings from the staff.
21*	T	Staff and residents say how they feel about each other.
30*	T	People say what they really think around here.

AUTONOMY

4*	T	The staff act on residents' suggestions.
13*	T	Residents are expected to take leadership on the unit.
22*	F	The staff give residents very little responsibility.
31*	T	Residents have a say about what goes on here.

PRACTICAL ORIENTATION

5*	F	There is very little emphasis on making plans for getting out of here.
14*	T	Residents are encouraged to plan for the future.
23*	T	Residents are encouraged to learn new ways of doing things.
32*	F	There is very little emphasis on what residents will be doing after they leave the unit.

PERSONAL PROBLEM ORIENTATION

6*	T	Residents are expected to share their personal problems with each other.
15*	F	Residents rarely talk about their personal problems with other residents.
24*	T	Personal problems are openly talked about.
33*	T	Discussions on the unit emphasize understanding personal problems.

Real, Ideal, and Expectation Form Item Number	Scoring Direction	
ORDER AND ORGANIZATION		
7*	T	The staff make sure that the unit is always neat.
16*	F	The day room is often messy.
25*	F	The unit usually looks a little messy.
34*	T	This is a very well organized unit.
43	F	Things are sometimes very disorganized around here.
CLARITY		
8*	F	Staff sometimes argue with each other.
17*	T	If a resident's program is changed, someone on the staff always tells him why.
26*	T	When residents first arrive on the unit, someone shows them around and explains how the unit operates.
35*	F	Staff are always changing their minds here.
STAFF CONTROL		
9*	T	Once a schedule is arranged for a resident, he must follow it.
18*	F	Residents may criticize staff members to their faces.
27*	T	Residents will be transferred from this unit if they don't obey the rules.
36*	T	All decisions about the unit are made by the staff and not by the residents.

Mental Distress: Hopkins Symptom Checklist (HSCL)

NAME	DATE
LOCATION	RATER

INSTRUCTIONS: Below is a list of problems and complaints that people sometimes have. Please read each one carefully. After you have done so, please put a check (✓) in one of the four boxes to the right that best describes *HOW MUCH THAT PROBLEM HAS BOTHERED OR DISTRESSED YOU DURING THE PAST WEEK INCLUDING TODAY.*

Check only ONE box for each problem and do not skip any items. Make your checks carefully. If you change your mind, erase your first mark completely. Please read the example below before beginning.

EXAMPLE:	1 NOT AT ALL	2 A LITTLE BIT	3 QUITE A BIT	4 EXTREMELY
1. Backaches		✓		

Now, if the symptom is "backaches" and backaches have bothered you *not at all*, put a check mark in the box under 1, NOT AT ALL.

If backaches have been bothering you *a little*, put a check mark in the box under 2, A LITTLE BIT *(See example above).*

If backaches have been bothering you *quite a bit*, put a check mark in the box under 3, QUITE A BIT.

Finally, if backaches have been bothering you *extremely*, put a check mark in the box under 4, EXTREMELY.

HOW MUCH WERE YOU BOTHERED BY:	1 NOT AT ALL	2 A LITTLE BIT	3 QUITE A BIT	4 EXTREMELY
1. Headaches				
2. Nervousness or shakiness inside				
3. Being unable to get rid of bad thoughts or ideas				
4. Faintness or dizziness				
5. Loss of sexual interest or pleasure				
6. Feeling critical of others				
7. Bad dreams				
8. Difficulty in speaking when you are excited				
9. Trouble remembering things				
10. Worried about sloppiness or carelessness				
11. Feeling easily annoyed or irritated				
12. Pains in the heart or chest				
13. Itching				
14. Feeling low in energy or slowed down				
15. Thoughts of ending your life				
16. Sweating				
17. Trembling				
18. Feeling confused				
19. Poor appetite				
20. Crying easily				

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HSCL (Cont'd)

HOW MUCH WERE YOU BOTHERED BY:	1 NOT AT ALL	2 A LITTLE BIT	3 QUITE A BIT	4 EXTREMELY
21. Feeling shy or uneasy with the opposite sex				
22. A feeling of being trapped or caught				
23. Suddenly scared for no reason				
24. Temper outbursts you could not control				
25. Constipation				
26. Blaming yourself for things				
27. Pains in the lower part of your back				
28. Feeling blocked in getting things done				
29. Feeling lonely				
30. Feeling blue				
31. Worrying too much about things				
32. Feeling no interest in things				
33. Feeling fearful				
34. Your feelings being easily hurt				
35. Having to ask others what you should do				
36. Feeling others do not understand you or are unsympathetic				
37. Feeling that people are unfriendly or dislike you				
38. Having to do things very slowly to insure correctness				
39. Heart pounding or racing				
40. Nausea or upset stomach				
41. Feeling inferior to others				
42. Soreness of your muscles				
43. Loose bowel movements				
44. Trouble falling asleep				
45. Having to check and double-check what you do				
46. Difficulty making decisions				
47. Wanting to be alone				
48. Trouble getting your breath				
49. Hot or cold spells				
50. Having to avoid certain things, places or activities because they frighten you				
51. Your mind going blank				
52. Numbness or tingling in parts of your body				
53. A lump in your throat				
54. Feeling hopeless about the future				
55. Trouble concentrating				
56. Feeling weak in parts of your body				
57. Feeling tense or keyed up				
58. Heavy feelings in your arms or legs				

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HOPKINS SYMPTOM CHECKLIST DIMENSIONS*

HSCL somatization dimension

No.	Item
1	headaches
4	faintness or dizziness
12	pains in the heart or chest
14	feeling low in energy or slowed down
27	pains in lower part of your back
42	Soreness of your muscles
48	trouble getting your breath
49	hot or cold spells
52	numbness or tingling in parts of your body
53	a lump in your throat
56	weakness in parts of your body
58	heavy feeling in your arms or legs

HSCL depression dimension

No.	Item
5	loss of sexual interest or pleasure
15	thoughts of ending your life
19	poor appetite
20	crying easily
22	a feeling of being trapped or caught
26	blaming yourself for things
29	feeling lonely
30	feeling blue
31	worrying or stewing about things
32	feeling no interest in things
54	feeling hopeless about the future

HSCL obsessive-compulsive dimension

No.	Item
9	trouble remembering things
10	worried about sloppiness or carelessness
28	feeling blocked or stymied in getting things done
38	having to do things very slowly in order to be sure you were doing them right
45	having to check and double-check what you do
46	difficulty making decisions
51	your mind going blank
55	trouble concentrating

HSCL anxiety dimension

No.	Item
2	nervousness or shakiness inside
17	trembling
23	suddenly scared for no reason
33	feeling fearful
39	heart pounding or racing
50	having to avoid certain things, places, or activities because they frighten you
57	feeling tense or keyed up

HSCL interpersonal sensitivity dimension

No.	Item
6	feeling critical of others
11	feeling easily annoyed or irritated
24	temper outbursts you could not control
34	your feelings being easily hurt
36	feeling that others do not understand you or are unsympathetic
37	feeling that people are unfriendly or dislike you
41	feeling inferior to others

*Source: L.R. Derogatis, et al., "The Hopkins Symptom Checklist (HSCL): A Measure of Primary Symptom Dimensions," in P. Pichot (ed.), Psychological Measurements in Psychopharmacology: Modern Problems in Pharmacopsychiatry, Vol. 7, Basel, Switzerland: Karger, 1974, pp. 84-86.

Appendix B

SAMPLE LOGS AND OTHER RECORDING FORMS

FOR

SAMPLE LOG FOR MEASURES 1 and 2a

(Escape Rate and Escape Seriousness)

Name	ID Number	Facility Escaped From	Security Level	Date Escaped	Time Escaped	Date Recaptured	Time Recaptured	Out of Facility on WR or other Leave?	New Crimes?

SAMPLE LOG FOR MEASURE 3a (homicides), 9d (natural deaths) or 10a (suicides)

Name	ID Number	Age	Race	Sex	Cause of Death[1]	Date	Facility	Security Level

1. Homicide, suicide, specific illness or condition for natural deaths.

SAMPLE LOG FOR MEASURE 3a (Assaults)

Name	ID Number	Facility	Security Level	Cell Block or Area Where Assault Occurred	date

SAMPLE LOG FOR MEASURES 6a and 6b
(Number of accidents/injuries and days lost from work due to accidents and injuries)

Year _____ Facility _____

Month	Number of OSHA-defined accidents[1]	Total number of accidents[1]	Number of OSHA-defined work-loss days[2]	Total number of work-loss days[2]
Jan				
Feb				
Mar				
Apr				
May				
June				
July				
Aug				
Sept				
Oct				
Nov				
Dec.				
Annual Totals	_____	_____	_____	_____

1. Add up each month from Accident/Injury Reports
2. Add up each month from Accident/Injury Reports, but do not count week-end days even if inmate remained ill over a weekend.

B-5

MINNESOTA DEPARTMENT OF HEALTH

Section of Hotels, Resorts and Restaurants
717 Delaware S.E., Minneapolis, Minn. 55440

FOR MEASURE 7a

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FOOD SERVICE ESTABLISHMENT INSPECTION REPORT

P.O. _____ COUNTY _____ DATE _____ TIME _____

LICENSEE _____ CITY/TOWNSHIP _____

ADDRESS _____

BUSINESS NAME _____ TYPE OF BUSINESS _____

LICENSE NO. _____ POSTED _____ ESTABLISHMENT PHONE _____

ITEMS MARKED AND ORDERS WRITTEN BELOW MUST BE COMPLIED WITH BY DATA INDICATED

ITEM	WT	DESCRIPTION
		FOOD
1	5	Source, Wholesome, No Spoilage
2	1	Original Container, Properly Labeled
		FOOD PROTECTION
3	5	Potentially hazardous food meets (temperature requirements during storage, preparation, display, service and transportation
4	4	Facilities to maintain product temperature
5	1	Thermometers provided and conspicuous
6	2	Potentially hazardous food properly thawed
7	4	Unwrapped and potentially hazardous food not re-served
8	2	Food protection during storage, preparation, display, service and transportation
9	2	Handling of food (ice) minimized
10	1	Food (ice) dispensing utensils properly stored
		PERSONNEL
11	5	Personnel with infections restricted
12	5	Hands washed and clean, good hygiene practices
13	1	Clean clothes, hair restraints
		FOOD, EQUIPMENT AND UTENSILS
14	2	Food (ice) contact surfaces; designed, constructed, maintained, installed, located NSR standards
15	2	Non-Food contact surfaces designed, constructed, maintained, installed, located NSF Standards
16	2	Dishwashing facilities: designed, constructed, maintained, installed, located NSF Standards
17	1	Accurate Thermometers, chemical test kits provided, guage cock (½" IPS valve)
18	1	Pre-flushed, scraped, soaked
19	2	Wash, rinse water; clean, proper temperature
20	3	Sanitization rinse; clean, temperature, concentration, exposure time
21	1	Wiping cloths; clean, use restricted
22	2	Food-contact surfaces of equipement and utensils clean, free of abrasives and detergents
23	1	Non-food contact surfaces of equipment and utensils clean
24	1	Storage, handling of clean equipment-utensils
25	1	Single-service articles, storage, dispensing
26	2	No re-use of single-service articles
		WATER
27	1	Water source, safe; Hot and cold under pressure
		SEWAGE
28	4	Sewage and waste water disposal
		PLUMBING
29	1	Installed, maintained
30	5	Cross-connection, back siphonage, back flow
		TOILET AND HAND-WASHING FACILITIES
31	3	Number, convenient, accessible, designed, installed
32	2	Toilet rooms enclosed, self-closing doors, fixtures, good repair, clean; Hand cleanser, sanitary towels/hand drying devices provided, proper waste receptacles, tissue
		GARBAGE AND REFUSE DISPOSAL
33	2	Containers or receptacles covered; adequate number, insect/rodent proof, frequency clean
34	1	Outside storage area, enclosures, properly constructed, clean; controlled incineration
		INSECT, RODENT AND ANIMAL CONTROL
35	3	Presence of insects/rodents-outer openings protected, no birds, turtles other animals
		FLOORS, WALLS AND CEILINGS
36	2	Floors: constructed, drained, clean, good repair, covering installation, dustless cleaning methods
37	2	Walls, ceiling, attached equipment: constructed good repair, clean surfaces, dustless cleaning methods
		LIGHTING
38	1	Lighting provided as required-fixtures shielded
		VENTILIATION
39	1	Rooms and equipment vented as required
		DRESSING ROOMS
40	1	Rooms clean, lockers provided, facilities clean, located, used
		OTHER OPERATIONS
41	5	Toxic items properly stored, labeled and used
42	1	Premises maintained, free of litter, unnecessary articles, cleaning maintenance equipment properly stored, authorized personnel
43	1	Complete separation from living/sleeping quarters, laundry
44	1	Clean, soiled linen properly stored
45		Compliance with MCIAA Yes _____ No _____
		Bactericidal Agent _____ Concentration _____ ppm

TEMPERATURES: Hot Water Sanitizing _____ Hot Foods _____ Cold Foods _____

Note: All new food equipment must meet the applicable standards of the National Sanitation Foundation. Plans and specifications must be submitted for review and approval prior to new construction, remodeling or alterations. Minnesota Statutes Section 157.03.

ITEM REMARKS AND ORDERS

Rating Score _____ Received by _____

District Office and Telephone No. _____ Public Health Sanitarian _____

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SAMPLE SANITATION CHECKLIST FOR MEASURE 7a[1]

Rev. 1/72
OMB Form 1268 Sanitation
(Recodified 2/76)

DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES
STATE INSPECTION FORMS FOR
~~LOCAL~~ CONFINEMENT FACILITIES

Health Department _____ Demerit Score _____

CLASSIFICATION:

Name of Facility _____ Approved _____

Address of Facility _____ Provisional _____

Disapproved _____

Person in charge at time of inspection, and title _____

Demerit Points

1. FLOORS: Easily cleanable, in good repair 1: kept clean 2: sloped, impervious, and floor drain, if required 2 (.0107). _____
2. WALLS AND CEILINGS: Easily cleanable, in good repair 1: light colored, washable to level of splash 2: kept clean 2 (.0108). _____
3. LIGHTING AND VENTILATION: Adequate in all areas as required 4; fixtures, equipment in good repair and clean 4; special vents for kitchen, etc., effective and kept clean 4 (.0109) ..... _____
4. TOILET, HANDWASHING AND BATHING FACILITIES: Toilet, handwashing, bathing facilities adequate, convenient, comply with Building Code 2; fixtures approved, in good repair, and clean 2; lavatory provided in kitchen 2; mixing faucet, soap, towels 1; hot water supply adequate 4 (.0110) ..... _____
5. WATER SUPPLY: Public supply; private supply (approved, adequate) 6; hot and cold water piped to points of use 4 (.0111)... _____
6. DRINKING WATER FACILITIES: Fountains or individual drinking cups provided 4; fountains of approved type, regulated, clean 2; multi-use cups easily cleanable construction, cleaned and sanitized daily and before use by succeeding persons 2 (.0112) ..... _____
7. LIQUID WASTES: Sewage and other liquid wastes disposed of by approved method 6; on-site disposal system properly operated, no nuisance 2 (.0113) ..... _____
8. SOLID WASTES: Garbage in standard containers, properly covered and stored: can cleaning facilities; containers, storage room clean 4; dry rubbish in suitable receptacles, properly stored and disposed of 2 (.0114) ..... _____
9. VERMIN CONTROL, PREMISES: Outside openings effectively screened or otherwise protected against entrance of flies, etc., or flies absent 4; effective control of rodents or other vermin 4; pesticides properly used and stored 2; premises clean and free of vermin harborages and breeding areas 2 (.0115) ..... _____
10. STORAGE: Adequate facilities provided for storage of necessary janitorial supplies and equipment, mattresses, and linen 2; mop receptors or sinks provided and used 2; facilities clean 2 (.0116) ..... _____
11. MATTRESSES - MATTRESS COVERS - BED LINEN: Furniture, bunks, mattresses, etc., clean and in good repair 4; linen clean and in good repair, properly stored and handled 2; soiled linen properly handled and stored 1 (.0117) ..... _____
12. FOOD SERVICE UTENSILS AND EQUIPMENT: Easily cleanable construction, in good repair, kept clean 4; food-contact surfaces accessible for cleaning, non-toxic, etc., free of open crevices 4 (.0118) ..... _____
13. CLEANING AND SANITIZING OF FOOD SERVICE UTENSILS AND EQUIPMENT: Multi-use eating and drinking utensils cleaned and sanitized after each use 4; cooking and storage utensils cleaned after each use 2; facilities for washing and sanitizing approved, adequate, properly maintained (booster heater when necessary) 4; substances containing poisonous material not used for cleaning or polishing eating or cooking utensils 6; cloths used in kitchen clean 2 (.0119) .. _____
14. STORAGE AND HANDLING OF FOOD SERVICE UTENSILS AND EQUIPMENT: Sanitized utensils stored in clean place 2; cooking and storage utensils properly stored and handled 2; no contamination of food-contact surfaces of equipment 2; single-service utensils properly stored and handled 2 (.0120) ..... _____
15. FOOD SUPPLIES AND PROTECTION: Supplies: All food clean, wholesome, no spoilage; potentially hazardous foods from approved sources, properly identified 6; Grade A pasteurized fluid milk for drinking, dry milk reconstituted for cooking only 4; meals from approved sources if other than jail kitchen 6; single-service utensils used by alternate source 4; Protection: Adequate during storage, preparation, display, service, and transportation; potentially hazardour food below 45°F. or above 140°F. 4; storage facilities adequate, all refrigerators with thermometers 2; pork stuffings, etc., thoroughly cooked; meat and poultry salad, potato salad, etc., handled as required; no re-serving 4; adequate facilities for cold and hot food storage 2; food containers stored above floor and protected from splash and other contamination 2; no live animals or fowl 2 (.0121, .0122) ..... _____
16. FOOD SERVICE WORKERS: Clean coats, caps, or special dress 2; clean hands and work habits 4 (.0123) ..... _____

DATE _____ SIGNED _____ AGENT _____

DEPARTMENT OF HUMAN RESOURCES

[1] The number following each standard indicates the demerit points to be given if the facility does not meet the standard. Thus, if floors are not in good repair, the facility gets 1 demerit point; if they are not kept clean the facility gets 2 demerit points, and so forth.

SAMPLE INSPECTION FORM FOR MEASURE 7a

INSPECTION CHECK LIST

NORTH CAROLINA DIVISION OF PRISONS

(County) (Unit No.) (Address) (Supt.) (Date)

A. KITCHEN AND DINING HALL	Satisfactory	Correction Needed
1. Walls, ceilings, floors, clean, in good condition		
2. Windows, doors, clean, in good condition, properly screened		
3. Adequate light and all lights working		
4. Kitchen properly ventilated, window fan and its surroundings clean		
5. Range clean, top, side, back, burners, oven in good condition		
6. Hood clean inside, outside in good condition		
7. Slicer, can opener, etc., clean		
8. Tables in kitchen, dining room, clean, in good condition		
9. Shelves, cabinets, clean, in good condition		
10. Table legs, sink legs, other bases, clean, kept painted		
11. Pot sink, three-compartment sink, clean, in good condition		
12. Adequate number of submergible baskets		
13. Adequate hot water (180°), all eating utensils sterilized		
14. Pots, pans, utensils, clean, in good condition, well arranged on racks		
15. Eating utensils clean, covered, in good condition		
16. Temperature between 26° and 36° in refrigerator		
17. Food properly stored in refrigerator, deep freezer		
18. Floors, shelves, racks, clean in refrigerator and deep freezer properly maintained		
19. Food properly stored, storage facilities clean		
20. Food storage facilities locked when not in use. Keys in possession of employees.		
21. Food storage containers clean, free of bugs		
22. Flies, mice, other vermin, not present		
23. Garbage facilities clean, in good condition: Proper handling of garbage		
24. Lavatory, soap, towels, available for washing hands in kitchen		
25. Inmate kitchen personnel dressed in clean white uniforms		
26. Cooks prohibited use of tobacco products while preparing food		
27. Inventory of cutting tools (knives, cleavers, saws, etc.) properly stored		
28. Grease trap properly maintained		
29. Insecticides, disinfectants, etc., stored in proper location		
30. Guest meal receipts properly handled, proper records kept		

INMATE HOUSING	Satisfactory	Correction Needed
Lobby, Halls, and Stairs		
1. Floors, walls, ceilings, clean and in good condition		
2. Doors, windows, clean, screened, in good condition, illumination adequate		
3. Furniture clean, in good condition		
4. Inmate bulletin board		
Dormitories, Sick Room, Cells		
1. Furniture clean, in good condition		
2. Floors, walls, ceilings, clean, in good condition		
3. Doors, windows, clean, screened, in good condition		
4. Heat, illumination adequate		
5. Beds, bedding, clean, neatly made, in good condition, fire resistant mattresses		
6. Lockers clean, orderly, in good condition		
7. Adequate drinking water facilities		
8. Television, musical instruments, books, etc., properly handled		
9. No mice, roaches, or other vermin		
Toilets, Baths, Wash Basins		
1. Adequate number of fixtures, clean, in good condition, no leaks		
2. Floors, walls, ceilings, clean, in good condition		
3. Illumination, ventilation, adequate		
4. Adequate hot water		
Segregation Unit		
1. Floors, walls, ceilings, clean, in good condition		
2. Ventilation, heat, illumination, adequate		
3. Windows clean, screened, in good condition		
4. Bath, toilets, wash basin, clean, in good condition		
5. Bedding adequate, clean		
6. No mice, roaches, other vermin		
7. No apparent hazards to custody		
Miscellaneous		
1. Clothes-house, boiler room, other outbuildings, clean, orderly, in good condition		
2. Hobby shop clean, orderly, in good condition		
3. Canteen clean, orderly, in good condition; display of merchandise		
4. Guard towers, fence, gates in good condition		
5. Athletic areas, equipment, properly maintained		

Miscellaneous (Continued)	Satisfactory	Correction Needed
6. Water supply--quantity, quality		
Source--well, city		
Properly maintained--pump, pump house, storage tank		
7. Sewage disposal, adequate		
Type--city, septic tank, filter bed, waste treatment facility		
Properly maintained--fenced, surface water, clean		
8. Grounds clean, neat, grass cut, shrubbery, trash containers, properly maintained		
9. No apparent hazards to custody		
10. Adequate system for fire prevention, no fire hazards present		
11. Medical and dental service areas properly maintained, clean and orderly		
12. Barber shop adequate, clean, orderly		
13. Classrooms, library, day rooms, properly maintained clean, orderly		
14. Vocational building properly maintained, clean, orderly		
15. Administrative, clerical, program and custody offices clean and orderly		
16. Vocational building properly maintained, clean, orderly		
17. Custody equipment properly maintained, proper handling		
18. Correctional personnel in proper dress, well groomed		
19. Inmates in proper clothing, clean and neat, proper discipline maintained		
20. Fire fighting equipement adequate. Fire extinguishers, water hoses, ladders, area, etc., fire department near prison		
21. Fire retardant mattresses in all lock-up cells		
22. Emergency plans--fire, riot, excape, hsotage, natural disaster, adequate and up to date		

SAMPLE FIRE INSPECTION CHECKLIST FOR MEASURE 8a

		Violation Warning Code
0	Automatic Fire Protection and Standpipes	
	(A) Automatic Extinguishing System	
	(1) Where provided they must be maintained in operating condition.	Uniform Fire Code 13.302
	(B) Commercial cooking	
	(1) Automatic extinguishing system must be installed in hood and duct of grease removal system of commercial cooking equipment and serviced evey 6 months.	Kansas State Fire Regulations 22-13-4
	(C) Dry Standpipes (2½)	
	(1) Where provided must be maintained in good operating condition	Uniform Fire Code 13.302
	(D) Wet Standpipes (1½" Hose Lines)	
	(1) Where provided must be provided with 1½" hose and nozzle (preferably variable Fog)	Uniform Building Code 3804D7
	(2) All portions of building should be within 20' of nozzle attached to 75' of hose.	Uniform Building Code 3804C
	(3) Where provided must be maintained in good operating condition.	Uniform Fire Code 13.302
	(E) Tamper	
	(1) No person shall tamper or remove where required.	Uniform Fire Code 13.302
1	Portable Fire Extinguishers	
	(A) Class A Extinguishers	
	(1) One 20A rated extinguisher required for every business. Travel distance should not exceed 75'. (See occupancy for quantity)	Uniform Fire Code 13. 301A
	(B) Class BC Extinguisher	
	(1) One preferably 5BC rated (or larger) extinguisher for every special hazard. Travel distance should not exceed 30' except under special situations.	Uniform Fire Code 13.301A
	(2) Commercial cooking areas should preferably be provided with 20BC rated extinguisher	Uniform Fire Code 13.301A

(C)	Maintenance	
(1)	Maintained annually and after each use. Extinguishers with pressure guage can be virtually checked others must be recharged or weighed. Attached record must be dated and initialed.	Uniform Fire Code 13.302
(2)	Hydrostatic tests should be conducted every 5 or 12 years as required by N.F.P.A.	Uniform Fire Code 13.302
2	Electrical, Heating and Mechanical	
(A)	Electrical	
(1)	All wiring must be installed in accordance with the National Electric Code.	Uniform Fire Code 27.404A
(2)	Use of hazardous electrical installations must be discontinued i.e., extension cords.	Uniform Fire Code 27.404B
(3)	Remove unapproved or dangerous electrical appliance.	Uniform Fire Code 27.405
(B)	Heating and Mechanical	
(1)	Only gas connectors approved by the Uniform Mechanical Code can be used.	Uniform Fire Code 27.406B
(2)	Gas appliances must be vented as required by the Uniform Mechanical Code.	Uniform Fire Code 27.406B
(3)	Water heaters both electric and gas must be equipped with a pressure temperature relief valve.	City of Wichita Code 21.12.180
(4)	Proner clearance of combustibles must be maintained.	Uniform Fire Code 27.406D
(5)	Heating appliance must be approved by the American Gas Association with covers and guards in place.	Uniform Fire Code 27.406A

(8)	A gas shut off valve should be provided near each appliance when	City of Wichita Code 21.16.050
3	Combustibles and Flammables	
(A)	Combustibles	
(1)	All combustibles rubbish stored inside a building must be in a metal or U.L. approved plastic container with tight fitting covers.	Uniform Fire Code 27.2018
(2)	Rubbish, grass and weeds must be cut and/or removed from yard or vacant lot.	Uniform Fire Code 27.201A
(3)	Oily rags and combustible storage must be stored in covered metal container.	Uniform Fire Code 27.201B
(B)	Flammables	
(1)	Class 1 or 2 flammable liquids must be stored in labeled metal contained with tight fitting lid. Gasoline container must be red. See occupancy class for quantity.	City of Wichita Code 15.01.080
(2)	Flammable or combustible liquids may not be discharged into street, ditch, storm drain or upon ground.	Uniform Fire Code 15.110
(C)	Grease	
(1)	Grease accumulation in hood and duct or exhaust system for cooking equipment must be cleaned at frequent intervals.	Uniform Fire Code 1.216
4	Exit Facilities	
(A)	Number of Exits	
(1)	Most occupancy require exits established on occupant load. Occupant load over 1000 requires 4 exits, 500 to 999 requires 3 exits, 50 to 499 requires 2 exits. See occupancy class for special situations.	Uniform Building Code 3302A
(2)	Floors below ground level used for other than service of the building require at least 2 units.	Uniform Building Code 3302A2
(3)	Occupancy above the first story with occupant load of over 10 must have at least 2 exits.	Uniform Building Code 3302A2
(B)	Width of Exits	
(1)	Exit doors must be 36" wide (clear opening 28") and at least 6'8" high. Some existing exits may vary slightly.	Uniform Building Code 3303D

5	Structural	
	(A) Corridors	
	(1) No dead end corridors exceeding 20'. Some existing building may exceed but suggestions should be made to correct situation.	Uniform Building Code 3304F
	(2) Corridor width shall not be less than 44". See occupancy class for special requirements. Some existing buildings may vary.	Uniform Building Code 3304B
6	Construction, Height and Allowable These requirements will be considered at time of planning and construction.	
7	Occupancy Limit and Overcrowding See occupancy class for code references.	
8	Special Hazards	
	(A) Compressed Gas Cylinders	
	(1) All compressed gas cylinders shall be securely anchored.	Uniform Fire Code 8.108
	(B) Smoking	
	(1) Smoking may be prohibited in locations which would make it hazardous. Owner can be ordered to post signs where prohibited.	Uniform Fire Code 29.101
	(2) It is unlawful to remove or destroy No Smoking Signs.	Uniform Fire Code 29.104
	(3) Compliance with No Smoking Sign required.	Uniform Fire Code 29.105
9	Stairways and Vertical Enclosures	
	(A) Stairways	
	(1) Minimum width of stairway is 36" and trim reducing required width not over 3½". Some existing structures may not comply.	Uniform Building Code 3305B
	(2) Handrails shall be provided on both sides of stairways with intermediate rails when over 88". Placed between 30" and 34" above tread.	Uniform Building Code 3305I
A	Alarm System	
	(1) Fire Alarm System	
	(A) No signal used for other purpose acceptable.	Uniform Fire Code 13.307B
	(B) Alarm Stations should be near telephone switchboard and others as required.	Uniform Fire Code 13.307D

SAMPLE LOG FOR FIRES (Measure 8b), FIRE CAUSE, AND FIRE CONSEQUENCES (Measures 8c and 8d)

Location of Incident	Cause of Incident	Dollar Loss (Measure 8c)		(Measure 8d) Injuries
		State Property	Personal	

TOTALS :

SAMPLE LOG FOR MEASURES 9a and 9b
(Number of hospitalizations and length of hospital stay)

Name	ID Number	Facility	Which Hospital	Date Entered	Date released	Total number of days in hospital	Cause of hospitalization

SAMPLE LOG FOR MEASURE 9c (sick days)

Month _____ Facility _____

day[1]	Number sick and confined to bed or cell	Number excused from work or other assignment for medical reasons, but not confined to bed
1		
2		
3		
4		
5		
6		
7		
8		
.		
.		
.		
31		
Totals	_____	_____

1. Do not count week-end days.

SAMPLE LOG FOR MEASURE 10b
Requests for and Prescriptions for Medications
to Relieve Mental Distress

Month _____ Facility _____

Name	ID Number	Date Prescription began[1]	Duration of Prescription[2]	Name of Drug	Requested drugs, drugs not prescribed[3]

1. Count each refill as a separate prescription.
2. Record how many weeks of medication issued. Count each refill as a separate prescription.
3. This log can serve to record both requests and actual prescriptions written. If a request is denied, check this column and leave the previous 3 columns blank. If you don't want to record requests, omit this column.

END