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CORRECTIONETICS: A MODULAR APPROACH TO AN ADVANCED CORRECTIONAL INFORMATION SYSTEM

Harland L. Hill, Ph.D.
Vice President
American Justice Institute
Sacramento, CA

INTRODUCTION

Since the last SEARCH Symposium, the NIMH funded Correctional Decisions Information Project (CDIP)[2] of the American Justice Institute has completed the modular conceptual design of an information system to assist correctional managers and case decision makers to achieve their operational objectives. The design provides information for decisive actions and feedback of the consequences of those actions. This feedback relates to the variance between planned and actual correctional achievements over successive periods of time. It also relates to the management functions depicted in Figure 1 which sets forth an overview of correctional operations to be supported by an information system. This feedback is dependent upon:

1. Operational definition of correctional goals and objectives,
2. Precise specification of the nature of the requirements imposed on correctional entities by new offenders and their environments.

It involves four major management functions.

1. Managerial planning to meet these changing requirements,
2. Measuring the quality and quantity of operational thrusts toward change and controlling operations to be sure they agree with plans, policies, etc.,
3. Assessing intermediate correctional achievements, and
4. Evaluating the effectiveness of the various correctional processes in achieving correctional goals.

Feedback from each of the latter three functions results in replanning, restatement of goals, or both. The Correctional Information System must not only support the four management functions, it also must support the decisions which take place within the six case event programs and the four management support programs shown in Figure 1.

THE CORRECTIONAL INFORMATION SYSTEM OVERVIEW

A total Correctional Information System was conceived, shown here in Figure 2. It was recognized that a total correctional information system to meet all these needs could not be implemented in a single thrust due to the constraints of resources and the limited ability of a correctional system to change. A step by step or modular approach was deemed necessary. A series of models, which together approach a total system, were organized into four subsystems as depicted in Figure 3.

The four basic subsystems are (1) Offender Control and Reintegration, (2) Management Support, (3) Offender Care, and (4) Correctional Industries. These subsystems have been selected with an eye toward the major goals of the system and the supporting activities required to achieve those goals. The major differences among the subsystems are in the purposes each serves and, thereby, the capabilities provided. Since each subsystem also will be implemented in stages, a number of implementation *models* have been identified for most subsystems. A total of fourteen such models appear in Figure 3.

Figure 3 also reflects the unevenness of the system development. Highest priority was directed to the six models of the Offender Control and Reintegration subsystem.

These six models are ordered according to the designer's expectations of their chronological development. In fact, most are dependent upon previous models. Each successive model increases in complexity and capability by the addition of additional data elements and events. Within a subsystem, the models are conceived to provide different capabilities to accomplish the subsystem purpose. The assignment of capabilities to a model within a subsystem often has been an arbitrary design decision, based on the perceived needs and priorities of managers.

Many combinations of events are possible for each of the models. Crucial to the success of the eventual total system, however, is the ability to fit the modular pieces into an integrated whole after a lengthy period of development. This ability to integrate the various models is dependent on linking them across the subsystems via the use of codes for key data elements; e.g., offender number, organization code, event codes, activity codes, and dates. So doing permits such linkages as costs in the fiscal model (model 7) to the performance measures in the effectiveness evaluation model (model 5) to provide cost effectiveness infor-

CORRECTIONAL OPERATIONS OVERVIEW

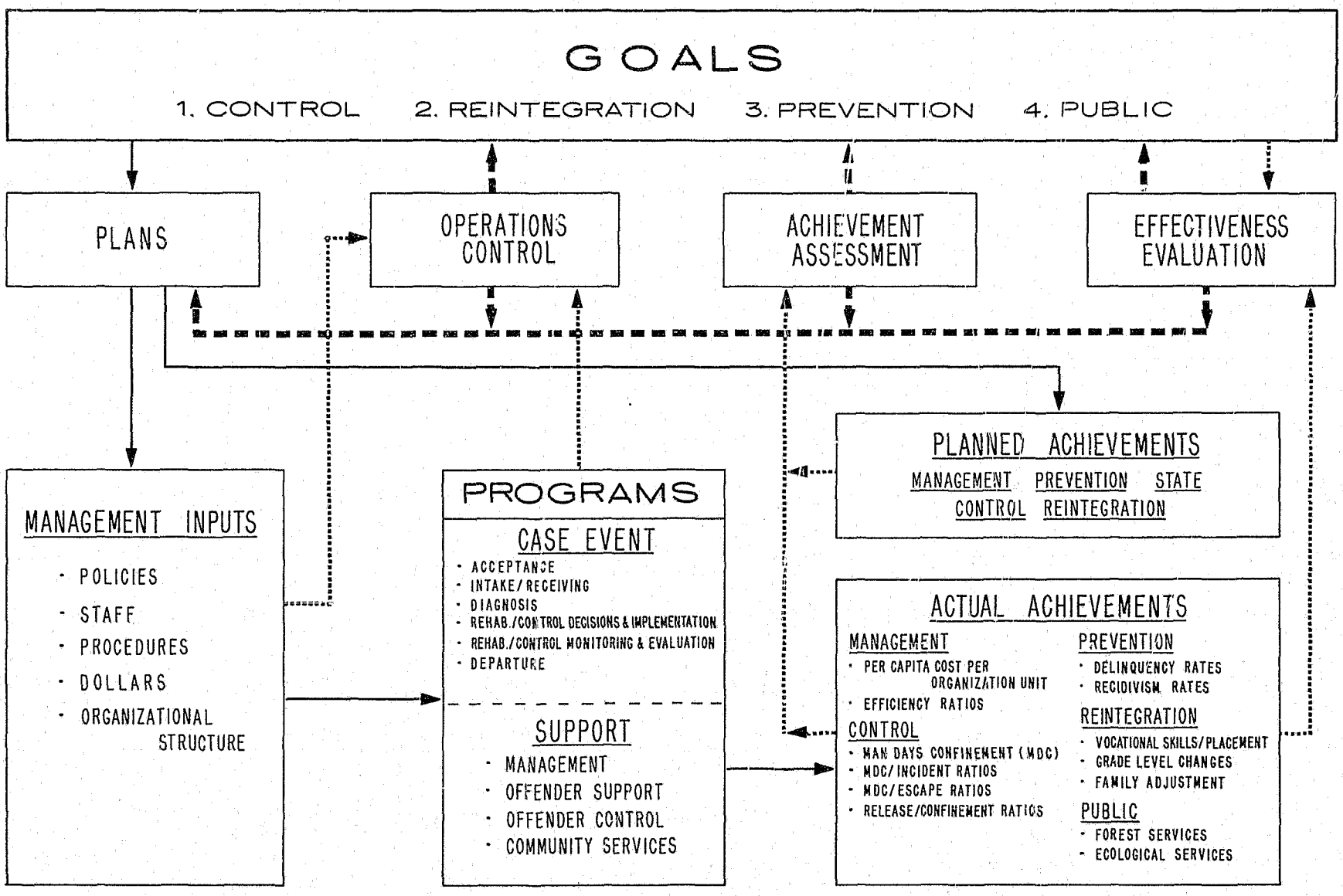


FIG. 1

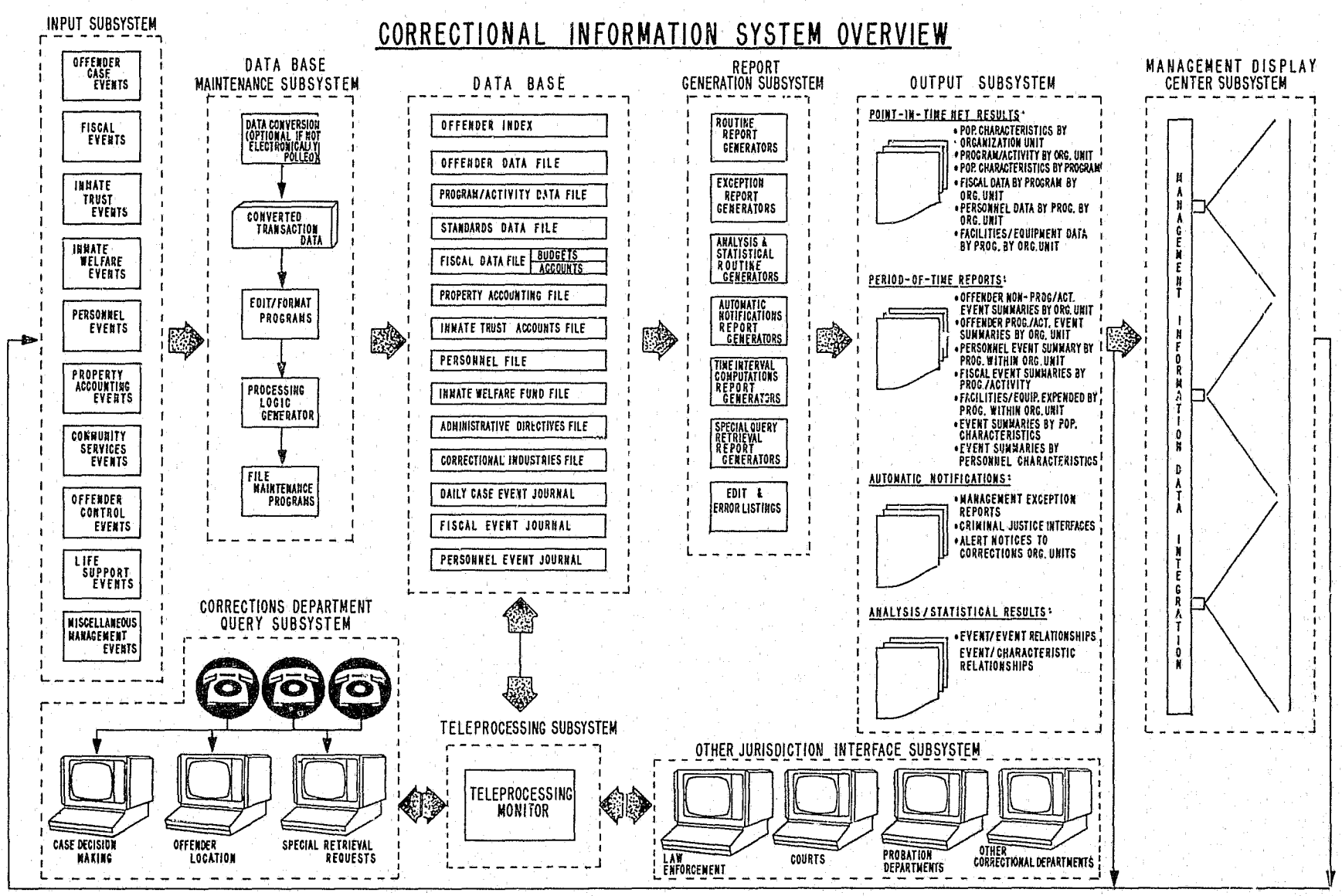

CORRECTIONAL INFORMATION SYSTEM OVERVIEW
INPUT SUBSYSTEM
OFFENDER CASE EVENTS
FISCAL EVENTS
INMATE TRUST EVENTS
INMATE WELFARE EVENTS
PERSONNEL EVENTS
PROPERTY ACCOUNTING EVENTS
COMMUNITY SERVICES EVENTS
OFFENDER CONTROL EVENTS
LIFE SUPPORT EVENTS
MISCELLANEOUS MANAGEMENT EVENTS
DATA BASE MAINTENANCE SUBSYSTEM
DATA CONVERSION (OPTIONAL IF NOT ELECTRONICALLY POLLED)
CONVERTED TRANSACTION DATA
EDIT/FORMAT PROGRAMS
PROCESSING LOGIC GENERATOR
FILE MAINTENANCE PROGRAMS
DATA BASE
OFFENDER INDEX
OFFENDER DATA FILE
PROGRAM/ACTIVITY DATA FILE
STANDARDS DATA FILE
FISCAL DATA FILE
BUDGETS
ACCOUNTS
PROPERTY ACCOUNTING FILE
INMATE TRUST ACCOUNTS FILE
PERSONNEL FILE
INMATE WELFARE FUND FILE
ADMINISTRATIVE DIRECTIVES FILE
CORRECTIONAL INDUSTRIES FILE
DAILY CASE EVENT JOURNAL
FISCAL EVENT JOURNAL
PERSONNEL EVENT JOURNAL
REPORT GENERATION SUBSYSTEM
ROUTINE REPORT GENERATORS
EXCEPTION REPORT GENERATORS
ANALYSIS & STATISTICAL ROUTINE GENERATORS
AUTOMATIC NOTIFICATIONS REPORT GENERATORS
TIME INTERVAL COMPUTATIONS REPORT GENERATORS
SPECIAL QUERY RETRIEVAL REPORT GENERATORS
EDIT & ERROR LISTINGS
OUTPUT SUBSYSTEM
POINT-IN-TIME HET RESULTS:
• POP. CHARACTERISTICS BY ORGANIZATION UNIT
• PROGRAM/ACTIVITY BY ORG. UNIT
• POP. CHARACTERISTICS BY PROGRAM
• FISCAL DATA BY PROGRAM BY ORG. UNIT
• PERSONNEL DATA BY PROG. BY ORG. UNIT
• FACILITIES/EQUIPMENT DATA BY PROG. BY ORG. UNIT
PERIOD-OF-TIME REPORTS:
• OFFENDER NON-PROG/ACT. EVENT SUMMARIES BY ORG. UNIT
• OFFENDER PROG./ACT. EVENT SUMMARIES BY ORG. UNIT
• PERSONNEL EVENT SUMMARY BY PROG. WITHIN ORG. UNIT
• FISCAL EVENT SUMMARIES BY PROG./ACTIVITY
• FACILITIES/EQUIP. EXPENDED BY PROG. WITHIN ORG. UNIT
• EVENT SUMMARIES BY POP. CHARACTERISTICS
• EVENT SUMMARIES BY PERSONNEL CHARACTERISTICS
AUTOMATIC NOTIFICATIONS:
• MANAGEMENT EXCEPTION REPORTS
• CRIMINAL JUSTICE INTERFACES
• ALERT NOTICES TO CORRECTIONS ORG. UNITS
ANALYSIS/STATISTICAL RESULTS:
• EVENT/EVENT RELATIONSHIPS
EVENT/CHARACTERISTIC RELATIONSHIPS
MANAGEMENT DISPLAY CENTER SUBSYSTEM
MANAGEMENT INFORMATION DATA INTEGRATION
CORRECTIONS DEPARTMENT QUERY SUBSYSTEM
CASE DECISION MAKING
OFFENDER LOCATION
SPECIAL RETRIEVAL REQUESTS
TELEPROCESSING SUBSYSTEM
TELEPROCESSING MONITOR
OTHER JURISDICTION INTERFACE SUBSYSTEM
LAW ENFORCEMENT
COURTS
PROBATION DEPARTMENTS
OTHER CORRECTIONAL DEPARTMENTS

FIG. 2

SUBSYSTEM IMPLEMENTATION MODELS
CORRECTIONAL INFORMATION SYSTEM

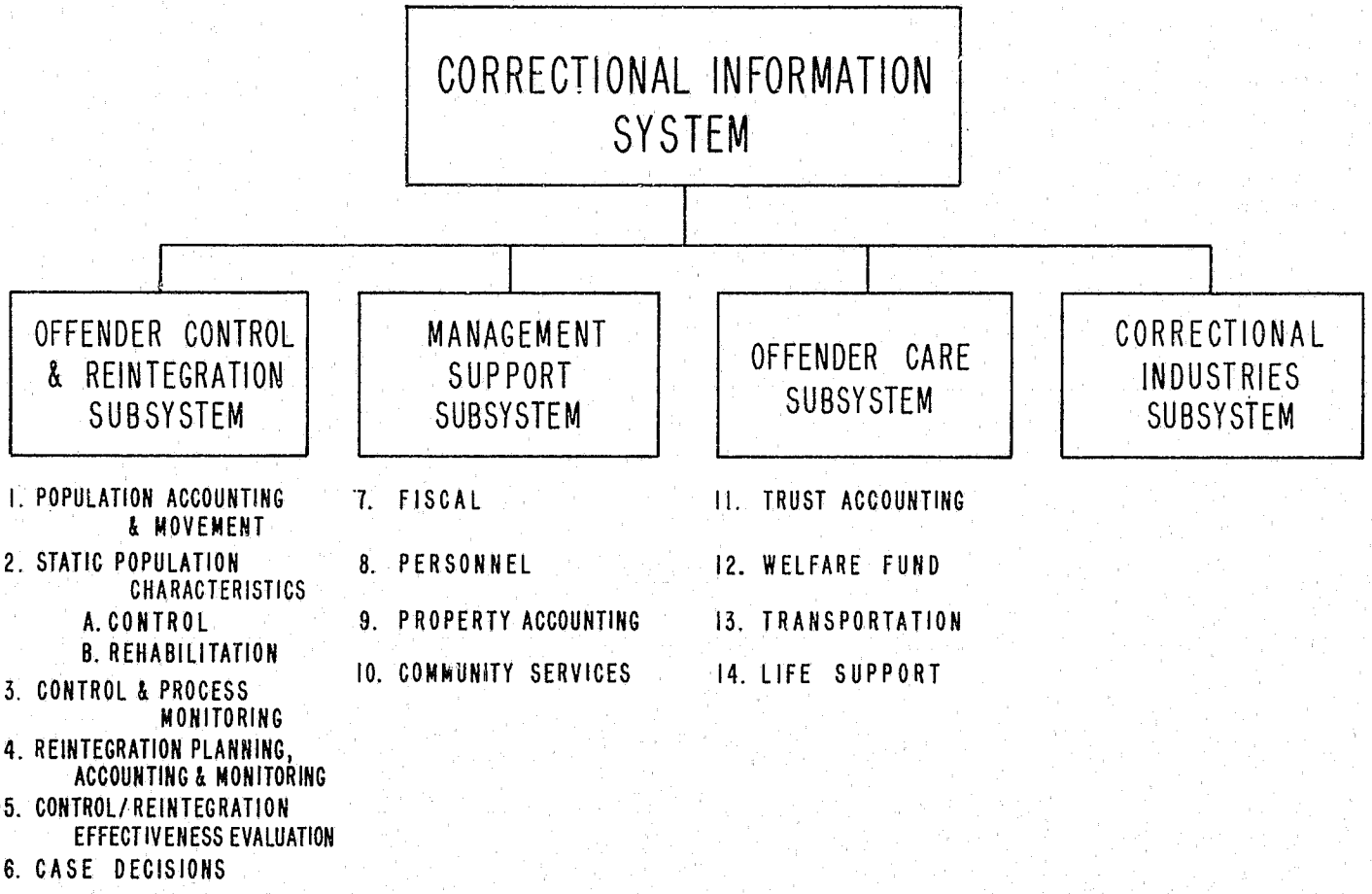


FIG. 3

mation. These codes also enable linkages across different models in the same subsystem.

First let me describe each model briefly and then come back to a discussion of the capabilities of the models as time permits.

Model 1. Population Accounting & Movement

This is a simple start up model to enable:

1. Location of the individual via an index.
2. Account organizationally for all offenders.
3. Provide movement data in terms of event summaries or days in movement status for each offender or all offenders.

This model only has 30 data elements to provide the bare essentials for management planning and feedback with respect to movement and the impact of population on planning alterations.

Model 2. Static Population Characteristics

This second model, which augments model 1, is primarily concerned with better planning of offender reintegration and control programs by capturing and reporting static offender population characteristics. This simplified capture of static characteristics occur at reception centers, or other places of first admission. It provides a great deal of planning information with a minimum increase in system resources. A static population characteristic is defined as data not subject to change, e.g., birthdate. Model 2 adds 112 such static items to model 1, including such data as treatment recommendations, which will be captured only once, at reception, and not updated. Thus, there is no requirement to track the offender to keep the model 2 static data items updated.

Model 3. Control & Process Monitoring

Model 3 addresses all decisions regarding the control of the offender population (level of custody or constraint). It also provides for the tracking of the control processes related to each offender in the system. Considerably larger than models 1 and 2, it adds 65 data elements and 218 control oriented subevents which capture those elements. Process status refers to each stage the offender is in in the system, e.g., accepted but not received, received undergoing diagnoses, diagnosed awaiting assignment, etc. There are 42 total process statuses. This concept provides a powerful mechanism for effective management control of the correctional process.

Model 4. Reintegration Planning, Accounting & Monitoring

As the name implies, this model provides information support for activities related to offender reintegration. Thus, model 4 will facilitate:

1. Monitoring individual offender program activity by capturing the program recommendations at the time of diagnosis and tracking all related decisions and program participation and progress therein.
2. Managing the delivery of rehabilitation program activities in accordance with the needs of offenders by aiding managers as they plan, control and assess the achievements of rehabilitation programs by setting forth (1) summary data about the number and types of programs/activities underway, (2) program achievements, and (3) unmet program prescriptions.

Model 4 provides 154 new data elements and 65 new events (291 subevents). As expected, these are related to program/activities and performance data.

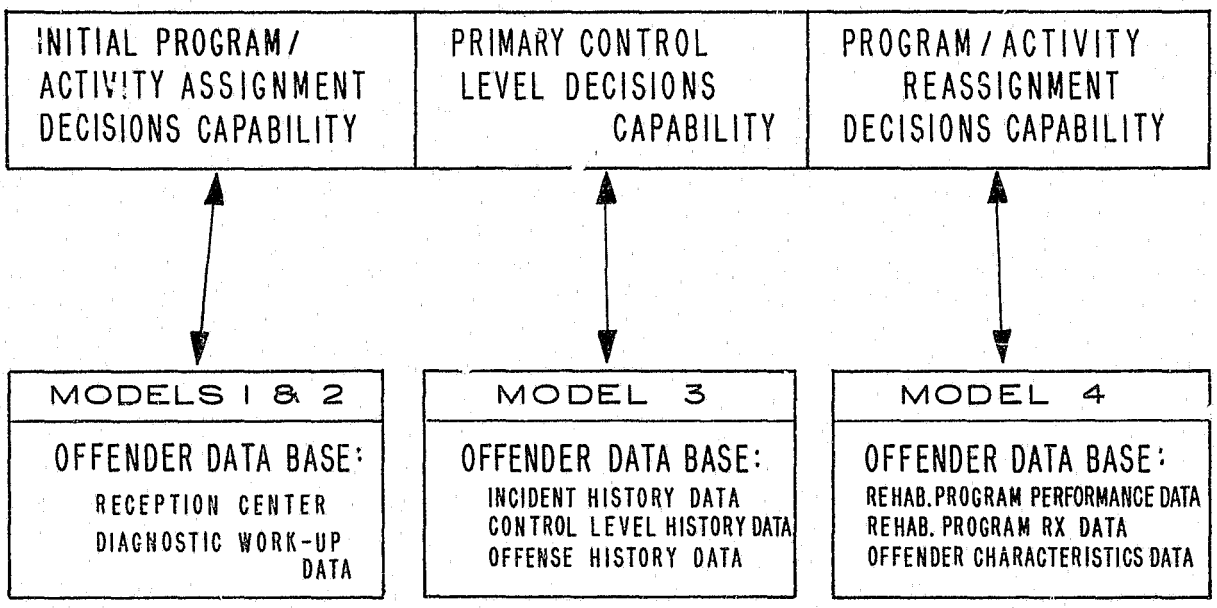
Model 5. Control/Reintegration Effectiveness Evaluation

This model strives to relate correctional operational results with correctional goals – effectiveness evaluation. It requires the marriage of the one major capability in model 4 -- the capture of each offender's program/activity performance – with new model 5 capabilties. The latter include the capture of data not previously gathered concerning each offender's performance on goal related behavior criteria and establishing the degree of relationship which exists between that performance and program/activity achievement via statistical analysis. The latter, statistical analysis, is the major characteristic of this model. If desired, it can be added on to previous models.

Model 6. Case Event Decisions

This model's purpose is to provide the information support for the decisions made with respect to the individual offender as he passes through the six system programs. It is quite possible to provide limited case decision data as early as model 2. Each additional model provides additional data for decision making as indicated in Figure 4. Therein you note model 2 data enables initial program assignment decisions, model 3 data supports control type decisions, and model 4 data supports reintegration decisions.

The case event decision model has been placed sixth largely for two reasons. First, exploratory decision studies have indicated a wide variance in the perceived importance of different data elements to correctional case decision makers; model



MODEL 6 MODULAR IMPLEMENTATION

FIG. 4

5 should facilitate empirical determination of the value of data to be presented. Second, the cost of providing the equipment to enable other than manual display of information in a large organization dictated the postponement of this capability other than in manual form.

CAPABILITIES OF SUBSYSTEM MODELS

Keeping in mind the overall correctional process as displayed in Figure 1, let us now touch on the capabilities of these models as time permits. Only a few illustrative capabilities can be set forth.

INTERFACE

First, since there has been a large amount of discussion of OBTS at this conference, one feature of model 1 will be automatic notices to other criminal justice units when an offender is admitted, transferred, or released.

PLANNING

Each model will provide event summaries and time interval computations with respect to the events covered therein, to facilitate management allocation of resources.

Model 1 will provide sample counts relative to: population, number of movements – admissions, transfers, release.

Model 2 informs managers on the distribution of static population characteristics across all organizations and preliminary reintegration programs data; it also aids the planning of diagnostic efforts since it sets forth the number of diagnoses to be performed and provides feedback on those completed or overdue.

Model 4 assists in planning resources to meet dynamically changing needs for reintegration programs.

OPERATIONS CONTROL

The outstanding feature of all models is the ability to set standards and monitor operations against those standards with management exception reports emitting when preset standards are not met within certain tolerances. Standards may pertain to organization population counts or time in particular movement statuses in model 1; the number of diagnostic events exceeding presently planned upper or lower limits in model 2; time in any process or control status exceeding limits in model 3; excessive time intervals between program prescription and entering program/activities or time in specific program in model 4.

Another important capability is that of setting certain criteria in terms of population characteristics, such as age or criminal history, for any

decision, be it control or reintegration, and receiving notice when a decision violates those criteria.

ACHIEVEMENT ASSESSMENT

Every model will provide summaries of the events that take place within that model so the manager can ascertain if he planned properly.

The results of those events, e.g., incidents or program/activity achievements, will provide precise data in terms of control or program achievements. The latter will include the number achieving or failing to achieve each program objective.

CASE EVENT DECISIONS

The initial decision models will simply provide data with which to make decisions. In more advanced, on line, case decision models, the decision maker will be able to obtain immediate feedback on whether his decision is contraindicated by such conditions as program availability, population characteristic standards, or incompatible inmates.

IMPLICATIONS FOR MANAGEMENT

Before closing, it appears in order to touch on the implications of such a CIS for correctional managers. Such a system is dependent on managers who have the ability and courage to set goals, assess requirements, plan for change, precisely assess the quality and quantity of operational thrusts, and willingly expose themselves to measurement of achievement and evaluation of their effectiveness in goal achievement. In other words, they must be of the new breed willing to change, with the courage to face the fact they may be found wrong.

In order to implement a CIS, the manager must provide firm, wholehearted support to its development and implementation. He must participate in the requirement definition and design stages. Once operational, he must make the tough priority decisions, often in the face of the demands of old time stalwarts. He must be willing to insist on uniform data element definitions and centralized collection of standard data. He must accept staff disruptions and train displaced personnel for new jobs. He must face the fact that adequate information is costly. He must place a higher priority on the establishing of the capability to assess the effectiveness of his organization, which may cause criticism, rather than using those resources to establish a new operational program that may create a good image but be of no real value to the offender. This, truly, is a rare breed of manager, but in him lies the hope of corrections. A correctional information system will provide the sharp tool with which he can carve such a future.

1. This paper, presented October 4, 1972 at the Second SEARCH Symposium, New Orleans, La., is drawn from a document by Hill, Harland L. and Woodell, Marshall J., *CORRECTIONETICS: MODULAR APPROACH TO AN ADVANCED CORRECTIONAL INFORMATION SYSTEM*, Vol. 1, American Justice Institute, Sacramento, Calif., 1972, passim.
2. Funded by National Institute Mental Health Grant 5 R11 MH 02092

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