

Final Report
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COR Phase I Evaluation
Initial Data Gathering and Tracking System Development
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Introduction

We are pleased to provide the following Final Report of our work under Contract 263-MD-628621. The work reported here is a First Phase of a larger project which can be summarized as follows:

To address the training needs related to minority scientists in the mental health fields of behavioral science and neuroscience, the National Institute of Mental Health(NIMH) established training programs for talented honors undergraduate, racial/ethnic minority students to encourage them to choose research careers in mental health disciplines. Other approaches to facilitating the training of racial/ethnic minority behavioral and neuroscience undertaken by NIMH include short-term summer research training and predoctoral training that supports the Minority Fellowship Programs at national professional associations in Nursing, Sociology, Psychology and Social Work. The present overall plan is to conduct an evaluation of these various mechanisms to assess their impact on the numbers of students who participate in early career training, their contributions to the conduct of the research related mission of the NIMH, and to identify as much as possible, the program elements that most heavily influenced these outcomes.

Within the context of this overall plan, the present work was undertaken to meet the following specific purpose:

The purpose of this contract is to provide guidance to the Office of Special Populations on appropriate evaluation strategies based on NIMH program records, available databases and consultation with program staff, and to design and demonstrate the feasibility of a tracking system for the information that a full scale evaluation would require.

The report is organized around two deliverable products: 1) A report on information data including the results of a meeting of a panel of evaluation experts; and 2) the development of a tracking system and assessment of evaluation design parameters. We will report on each of these objectives in turn, based on our conduct of the following evaluation activities:

- 1) Face-to-face interview with the program director;
- 2) Review of selected existing archived records on file at the NIMH and pilot test of proposed data tracking system;
- 3) Group discussion with COR directors;
- 4) Group meeting with Expert Panel members; and
- 5) Survey of COR directors re availability of and accessibility to data elements proposed for full evaluation.

I. Gathering Initial Information

A. Face-to-face interview with program director

The interview with the director was designed to refine the data collection strategies and gather

information regarding: proposed objectives for the full evaluation, available databases at NIMH, recommended key informants (such as COR directors and Expert Panel members), and other potential data sources. Information from this meeting resulted in the following: identification of three grantees whose applications were on file at NIMH and could be used for the records review; scheduling of an opportunity to meet with the COR directors at their grantees meeting to inform them of the study and to get their input on the data elements and procedures; generation of the list of individuals to invite to be members of the Expert Panel; and a revised timeline for completion of the Phase I.

B. Group discussion with COR directors

This discussion took place on October 30, 1996, at the annual grantees meeting held in Washington, D.C. [see **Exhibit 1.1 for full roster of COR Directors**] The program director and evaluation staff provided the background and context for the full evaluation and an overview of the Phase I activities. The directors reviewed the sample data collection form [see **Exhibit 1.2**] and were asked to provide input regarding the availability of proposed data elements (such as program level--number trained, graduated, etc., or individual level data--GPAs, graduate school disciplines, etc.).

COR directors indicated that certain data elements at the individual level may be difficult, but not impossible, to collect on a retrospective basis. The ease with which the proposed data could be collected seemed to vary with the experience of the director, the length of time that the applicant organization has been funded, and the length of time post-COR for certain data (e.g., year of graduate degree obtained). In addition, the directors made the following suggestions: 1) divide the data into evaluative and bonus components where the former refers to "required" elements and the latter reflects highlights (unanticipated payoffs) of individual programs (e.g., getting additional external funding); and 2) include more information about COR trainees (i.e., student publications and presentations, average time to degree completion, receipt of graduate fellowships, and completion of honors theses).

Directors also raised questions about the proposed evaluation plan, including:

- a) How easy is it to access data on students after they have completed the COR program or graduated from the undergraduate institution?
- b) How can we find ways of documenting post-COR training (i.e., graduate school, area of service)?
- c) Should we restrict ourselves to an evaluation plan based on students' achievements during tenure of program (i.e., obtain exit data versus post-exit data)?
- d) Should we be concerned if a student seeks a "non-mental health" degree after COR training? and
- e) What if students obtain a "non-mental health" degree but work in a mental health related area (e.g., a degree in library services, but supporting mental health related field work)?

The Directors agreed that the evaluators should send out a revised data form to all of the programs so that directors could provide information about the availability and accessibility of proposed data elements. The form was revised and a copy is included as **Exhibit 2.2**.

C. Review of archived records at NIMH.

Applications and supporting documentation from three current grantees, which were considered by the program director to be reflective of the range of applicants, were selected for review by evaluation staff. The purpose of the review was to document the range of data elements that could potentially be captured by record review rather than by direct requests from the grantees. The records are on file at NIMH and the reviews were conducted at the NIMH program office. A summary of this review is provided later in this report. After review of one complete record a sample data collection form [see **Exhibit 1.2**] was developed and presented to COR directors for their review and comment. Their input was gathered at the COR directors meeting and is discussed below. The feedback from the COR directors was used to revise the data collection form and review two additional applications in preparation for the Expert Panel Meeting discussed below. The review led to the following summary conclusions:

Each of the 13 NIMH files is different in terms of the detailed information they contain and the years for which the information is most complete. For most files, information is most complete for the last three to five years.

Each file can be divided into three major sections which provide the most useful information on the program and its trainees: (1) progress reports; (2) notice of grant award; and (3) statement of appointment.

The progress report is required as part of the application for continuing grants. It indicates the trainees' names, mentors and current status. The progress report also gives a brief overview of current trainees' research projects, as well as the total number of trainees receiving bachelor's, master's Ph.D.'s and professional degrees.

The notice of grant award and statement of appointment contain program information such as program starting date, total number of students currently in the program and their status (e.g., trainee, affiliate), and information unique to each site such as students' profiles in honor of their accomplishments.

D. Summary of three sites

The site files that were examined in detail included California State University, Long Beach(CSLB), Howard University(HU), and University of Puerto Rico(UPR). [See **Exhibit 1.3** for full summary of this information.] CSLB has produced 11 Ph.D.'s, HU has produced 21 Ph.D.'s and 52 Master's, and UPR has produced two MD's. The graduates are currently working in a variety of settings including universities, other research institutions, hospitals, and government agencies. It is not clear whether many of the positions are mental health-related. Most of the COR faculty are professors of psychology, but several are professors of anthropology, biology and education. The number of COR faculty, excluding the principal investigator, ranges from six (Puerto Rico) to 17 (Howard).

Howard reports that COR trainees are 10 times more likely to graduate with honors than non-COR trainees. Cal State reports that 20 trainees have participated in California State University Research competitions over the last five years. Several of the trainees have won at these competitions. Although Puerto Rico's program is relatively new (funded in 1989) the majority of their graduates are either in graduate school or in the process of applying to graduate programs or medical school.

Many of the trainees have participated in national and international research conferences such as the Annual Meeting of the Puerto Rican Psychological Association, the Inter-American Congress of Psychology and the Western Psychological Association Annual Meetings.

E. Group meeting with Expert Panel members

The Expert Panel consisted of the following members: [see Appendix A for CVs of Panel Members and Project Staff.]

Dr. Lorrita Watson, Special Assistant to the Director, Office of Research on Minority Health, National Institutes of Health. Dr. Watson has been involved in health sciences administration, and worked for several years with the Minority Biomedical Research Support Program. She has been involved with several other evaluations of NIH training programs, including the NIGMS/MARC and T-32 training grant evaluations, and her office is currently conducting an evaluation of all NIH minority programs.

Dr. Gregory Wilmoth, Evaluation Specialist, General Accounting Office. Dr. Wilmoth has served as lead evaluator for several government funded programs, has conducted affirmative action evaluations and evaluated the American Psychological Association MFP. He brings valuable expertise in placing the study in the context of the Government Performance and Results Act (GPRA).

Dr. Carla Serlin, Director, Ethnic Minority Fellowship Programs, American Nurses Association. Dr. Serlin's experience will be critical to expanding the design to include the ethnic minority fellowship programs. She has extensive experience in conducting evaluations of community-based and government funded programs, and is familiar with developing computerized databases to track program elements.

Dr. E. Aracelis Francis, Director, Minority Fellowships Program, Council on Social Work Education. Dr. Francis has been involved for several years in administering and evaluating social work fellowship programs. She, too, will be instrumental in expanding the design to include the MFPs.

Dr. Guillermo Bernal, Professor of Psychology and COR Director, University of Puerto Rico. Dr. Bernal represents the COR directors on the panel, and he is also chair of the Advisory Board for the American Psychological Association MFP. Dr. Bernal is also a seasoned researcher and administrator and has been involved in various efforts to document training programs' progress and successes.

The Expert Panel was convened on November 22, 1996 in Washington D.C. for a day long meeting to: review the goals of COR, MFP, and summer training programs; review objectives of Phase I of the evaluation; review the prototype of data extracted from the three files at NIMH; assess how well the data from the files answers the ultimate evaluation questions; develop strategies to answer questions for the MFP, summer programs and post-COR training experiences; and suggest mechanisms for routinely collecting data from COR directors [See Exhibit 1.4 for the Meeting Agenda]. One panel member was interviewed individually at a later date and this input was used to revise evaluation plans as appropriate.

The work of the Expert Panel focused primarily on the COR program since it presented the greatest challenge to the evaluation design. The panel discussed at length the information gathered from other data sources (the program director, program files, and COR directors), the limitations of

attempting to include a comparison group, and the COR program goals. The panel then recommended the following strategy:

Evaluation Design. Collect data from all students who were accepted into the COR program. Compare data on COR graduates to a comparison group which includes students who were accepted but did not complete the program.

Data Elements. The following data elements would be captured for each group (COR graduated and terminated).

COR graduates:

MINIMUM DATASET:

Number completed

Number who were 1-year, 2-year, or affiliate trainees

For 1- and 2-year trainees only:

Did they graduate:

If yes: Did they attend graduate school?

Yes, graduate school: In a mental health-related field? Did COR influence this? Was the program research-based?

No, graduate school: Reasons? What doing/did? mental health related? research?

If not graduated: What were reasons they did not graduate? Did they do something mental health related post-COR? research related?

IDEAL DATASET:

Profile at COR exit:

GPA exit COR

GPA exit institution

Presentations exit COR

Publications exit COR

Accepted to graduate school

Which school?

Discipline/program

Which degree?

Profile post-COR:

Completed degree?

Then what? mental health related? research?

Research grants?

Terminated COR

Graduated institution?

Graduate school? mental health related? research?

Career? mental health related? research?

Profile Exit or Post-COR:

May need to ask evaluator (Georgine Pion) for other NIH training program

about how this is tracked for comparison groups.

Suggestions: Review TAF (form 2271) or Impact File to see if NIH funded.

Evaluation Issues. The panel identified several issues that need to be addressed in developing the evaluation plan. These included the following:

- 1) Are there site specific application criteria for students in addition to the general criteria (e.g., are COR traineeships limited to certain disciplines at a particular institution)?
- 2) How might we access trainees post-COR or post-graduation from the institution if we need to interview trainees to get the information? Suggested strategies include approaching alumni associations for mailing addresses, or consulting with evaluators for the NIGMS-MARC evaluation regarding their approaches.
- 3) If we interview trainees do we need to go through OMB for clearance?
- 4) The final data elements should be tied to the original RFP goals and the agency mission.
- 5) The scope of the evaluation should be narrowed in terms of the years of focus. Tie to the RFAs and determine completeness of records.
- 6) Determine what things cut across programs (mentoring, summer programs, curriculum, etc.).
- 7) How do we represent COR programs when they vary in length of duration (time funded), amount of funding, number of trainees?
- 8) What are the transition points to consider: COR exit, degree received, entry to graduate school, graduate degree?
- 9) Are students' applications kept on file at the institutions?
- 10) Are students' statements of appointment kept on file?
- 11) Are past progress reports maintained by NIMH?
- 12) Are Notices of Award available to summarize amounts, dates of initial award, dollars per trainee and how money was to be used?
- 13) What files do the institutions maintain and for how long?
- 14) What extra documents do institutions maintain--photos, profiles, special events, other awards, publications, presentations?

The input from the Expert Panel was used to revise the data collection form and to develop a survey for the COR directors. The revised data collection form was used to review additional files at NIMH. The survey was sent to directors to determine what data as proposed above are available, for what years, and if data are not available how easy or difficult it would be to collect. The results of the additional files review and the survey are reported below.

II. Development of Tracking System & Evaluation of Design Parameters

The overall plan for this stage of the project involved assessing information from COR, Summer Grant and MFP programs develop a formalized tracking system for all programs based on this information. We elected to focus our attention solely on the COR program for several reasons 1) is the main interest of the OSP;; 2) information on the summer NIMH sponsored programs was not housed in the OSP office and hence not immediately available; 3) because MFP information was readily available and two members of the Expert Panel were MFP Directors, we felt we could include that aspect of the project in the next Phase. However, we did discuss at length the data elements for an evaluation of the MFP's, an outline of which can be found in Exhibit 2.1.

On the basis of the Expert Panel meeting, we developed a checklist of data elements that would be required to assess the parameters of COR performance. This checklist is presented as Exhibit 2.2. This checklist was sent to each COR Director with a covering letter [Exhibit 2.3] that requested them to determine what information was currently available, and where it could be found (in COR files; NIMH files; elsewhere). And if the information was not available, how difficult, in the COR Director's opinion, it would be to obtain the information. On the basis of this information, we could then make a judgment of the status of existing information that would be necessary to carry out a tracking system.

A. Assessing Information Available from COR Directors

We received information from 12 of the 13 COR Directors. One of the COR Programs, Hampton University, is so new as to have little information on which to base their reply. Thus, we have information on all eligible programs, and feel this complete representation will allow us to develop thorough tracking principles and plans.

Exhibit 2.4 provides a summary of the responses from the 12 programs for which we have information. The information is organized in three broad categories:

Program Components: What aspects of the program do we have information on? That is, what do COR trainees actually do? Among the program components are courses; invited speakers, attendance at conferences, summer research, symposia and so forth. Carefully delineating this information allows us to determine the nature of the COR experience.

Trainee Achievements: What evidence do we have of how well trainees have performed at the point of entry to COR, during their COR experience, and post-COR. This information indicates overall academic standing, honors, post-COR performance at graduate level, and publications and productivity.

Program Outcomes: The primary program outcome articulated in announcements is to provide [COR trainees] with special research training experiences designed to improve their qualifications for entry into advanced research training programs leading to the doctoral or M.D. research career degrees" (NIH Guide, Vol. 24, No. 14, April 14, 1995; Par 95-045). Evidence of program outcomes would be indicated by entry into graduate programs. Additional evidence of "improved qualifications" would include receipt of graduate fellowships and assistantships, and the quality and prestige of training programs to which they are admitted. Finally, although not an immediate goal of the program, ultimate effectiveness would be indicated by the successful completion of the training programs and entry into a research career.

Moreover, within its Public Health Service(PHS) mandate, the program seeks to "achieve the healthy promotion and disease prevention of *Healthy People 2000*. To this end, the goals of COR are to stimulate research careers in the "...priority areas of mental health and mental disorders." Success in meeting this objective would be indicated by entry into training programs that specialize in training biomedical and behavioral science researchers in mental health and mental disorders fields.

We thus ask for information concerning the fields of study in which degrees are obtained and the fellowships and assistantships that support their training.

Following is a narrative summary of the composite data presented in Exhibit 2.4.

B. Summary of Data Available for COR Grantees Based on 12 Sites

PROGRAM COMPONENTS: Most of this information is contained in both grantee site files and NIMH files. All files contain information on number of trainees in program, COR faculty names/titles/fields, years in which COR program funded, names of trainees, COR year(s) of trainee, status of student in COR (trainee, affiliate) and research area of trainee. Eleven sites have information on courses offered, and summer research experience. For the one site that does not have this information, it is difficult to access information on everything but courses offered. Ten sites have information on symposia and GPA of trainees at entrance into COR. Two sites report that access to this information is moderately difficult to difficult to get. Seven sites have information on invited speakers. For the other sites, it is difficult to get this information.

Overall, seven sites have program component information for all years between 1985 and 1995. For the other five sites, the information is available for some trainees for all years, or all trainees for some years (mostly the last 3-5 years). While most sites have home/parent addresses for trainees, there is no guarantee that the information is current, except for three sites which continue to track trainees post-COR.

TRAINEE ACHIEVEMENTS; For ten sites, the trainees' "statement of appointment" and actual applications are available (no specification as to whether on file or in storage). These sites also have information on the trainee's status in 1995. Eleven sites have information on trainees' year of graduation from the institution(undergraduate).University transcripts are generally unavailable and difficult to access. Only two sites have this information.

In general, the information on GPA, GRE scores, or honor/dean's list status is only available at the grantee site (not at NIMH). Five sites have information on GPA of trainees at COR exit, or at graduation. Three of the seven sites that need to collect this information say it would be difficult; the other four say it would be easy. Seven sites know the name of graduate school and year trainee received graduate degree. Information on the former is relatively easy to access, whereas access to information on the latter is difficult. Six sites have information about the trainees' graduate school training or GRE scores. Information on the number of trainees on honors or dean's list while in COR is available for ten sites. This information is easy to get. Only two sites have the above information for trainees post-COR, post-graduation or in graduate school. For the other sites, this information is difficult to obtain.

Information on COR productivity is readily available (11 of the 12 sites) whereas that on post-COR productivity is difficult to access (nine sites missing this information). Seven sites have information on journals in which trainees published; two sites say it would be difficult to get this

information; and three sites do not know if the information is available in the files.

PROGRAM OUTCOMES: Eleven files (both site and NIMH) contain information on number of trainees entering graduate programs and the number completing mental health (MH) related doctorates. Seven sites have information on career placement of COR graduates (those who did and did not go to graduate school). The above information is available for all years among six of the sites. However, only one site has information on MH related masters completed for all years.

In general, information on graduate training is moderately difficult or difficult to access for those sites that do not have it. Five sites have information on trainees receiving graduate fellowships. This information is difficult to access.

For trainees who did not complete COR, most sites only have information on GPA at COR exit. Beyond this, information is moderately difficult or difficult to access. Only three sites have complete information (trainee graduated? graduate school, MH career, etc.) on file.

OTHER: The Puerto Rico site has very detailed information, including some graphs and tables tracking trainee progress. They do follow-up of past trainees each year. Hawaii site has thorough information from 1989-1995. Information from previous years may be available but it will take time to sort through last PI's files. Talladega has only been funded from 1992, so some information is not available. Otherwise, the site has pretty thorough information. Morehouse has all applications for all years (1980-1996). They suggest doing a comparison between those accepted to MARC/COR and those who were not.

C. Proposed Tracking Model for Annual Reporting of COR Information

Our assessment of current data availability identified gaps that would make an ongoing, thorough evaluation of the COR programs impossible or extremely difficult and time consuming. Comparing data availability with the evaluation parameters and questions developed by the Expert Panel suggests that while most of it could be carried out well, many questions could not be answered beyond a five year period.

The records for different programs vary in quality and detail. This makes an overall COR evaluation very difficult. Thus the first step toward making a useful evaluation possible requires developing a tracking system to which all grantees would be required to conform. Moreover, we feel that the system must be implemented on an annual basis, not every five years when competitive renewal applications are submitted. Following is a brief description of this system

Annual Reports. We propose developing a uniform annual reporting format that meets the data needs of an ongoing evaluation. Compliance with this requirement would insure that in the future the data necessary to evaluate the critical processes and outcomes of COR would be possible. We would again organize this reporting format along the lines of Program Components, Trainee Achievements and Program Outcomes.

We propose the following annual general reporting format:

Annual Report--Program Components(ARPC):

- o COR Faculty involved in program; rank; role. Include CV of all listed faculty
- o Research projects sponsored by faculty; titles and abstracts; name of COR trainee
- o COR courses offered during the year; titles; abstracts; syllabus and professor
- o COR sponsored symposia, conferences etc; title; abstract; program; participants
- o Non-COR symposia, colloquia, conferences trainees attend; list each event; who attended
- o COR sponsored attendance at national conferences(including annual COR conf.); names of attendees
- o Summer research programs attended by COR trainees-place; director; trainees attended
- o Statement of Appointment for each trainee

Annual Report-- Trainee Achievements(ARTA):

- o New COR trainees(application for each trainee)
- o COR Trainees who graduated(name; trainee post-COR plans¹)
- o COR trainee honors(summary of any honors won during the year)
- o COR Trainee publications(summary of all presentations, publications during the year)
- o Individual trainee activity/accomplishments reports[see **Exhibit 2.5**]²

Annual Report—Program Outcomes(ARPO)

- o Names of COR graduates who entered graduate programs; institutions; training programs; fields of study
- o Names of COR graduates who did not pursue graduate training; current activity and future plans
- o Names of COR graduates who complete doctoral degrees; institutions; field; current address and career activity; years they were in COR

To be maximally useful, this report should be due on June 1, of each year. This allows time for COR graduates to complete their reports, and to detail their plans for the coming year. Moreover, the report should be submitted in hard copy and on a computer disk to facilitate its use in the ongoing evaluation activities.

III. Conclusions and Recommendations for Next Steps

On the basis of the work we have done so far, we can draw the following conclusions:

1. Information on which a thorough evaluation would rest is not uniformly available from all programs, or for all years between 1985 and 1995.
2. The information is generally of sufficient completeness that a meaningful evaluation could be conducted on all programs in operation from 1990-1995.

¹ All trainees will be required to write a post-COR exit report that summarizes their experiences, and their future graduate training plans.

² Each trainee who is supported in a given year will be required to fill out an individualized reporting form. This form should be submitted with the annual report for each trainee. A sample of the form is provided in Exhibit 2.5.

3. It would probably not be productive to evaluate programs prior to 1990.
4. It is important to make the tracking system a part of annual reporting requirements.
5. It will be necessary to develop a strategy for maintaining contact with COR graduates after they leave COR

With this basic overview as a starting point, we can now look ahead to the stage 3 of Phase I of this project. This Stage will require the development of evaluation designs, and a test of the tracking system. To do that, we propose to select a sample of programs and have them complete the annual tracking report forms. In addition, in consultation with the Expert Panel, we will develop evaluation design options that take into account the data availability, time frame, and evaluation questions to be answered. Finally, we will develop the specific forms for which annual reporting data will be submitted, and subject them to the testing outlined above.