

TRIP REPORT

GEORGE H. BEATON

TRAVEL TO CAIRO, EGYPT, TO ATTEND PART OF A MEETING OF CRSP INVESTIGATORS
AND TO DISCUSS EGYPTIAN FOOD INTAKE DATA WITH EGYPT PROJECT STAFF

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Statement of Purpose and Arrangements

There were two purposes to the trip. The Chairperson of the Nutrition CRSP SCB invited my participation in the discussion and preliminary analyses of the data that had been collected by all projects. I was able to attend only two days of that meeting. Management had invited me, with the concurrence of Egypt project PI's to serve as a specific advisor to look into and assist in the resolution of any problems that may exist in the Egypt food intake data.

The trip to Cairo was opportunistic. I was involved in a meeting in Rome on January 7 and 8 with expenses paid for transportation to Rome. The trip to Egypt was then added to the itinerary with differential costs being met by the Management Entity. Throughout the period that I was in Cairo, Dr. Hugh Horan was present thus there was opportunity for discussion of any issues that seemed to warrant attention.

Program of Work

January 8 11:30 pm Arrival from Rome; met at airport and transported to the hotel by Institute staff. Background briefing documents and draft minutes of proceedings of meeting to that time left by Dr. Horan for my information.

January 9 9:00 - 5:00 Attended meetings of CRSP Investigators. Discussion of food intake data had been deferred until that day. Copies of the analyses of validation study and of research data through July were distributed to PI's of the Egypt project and to Wafaa Moussa. There was no discussion of these analyses in the open meeting; rather, discussion was deferred until it would be possible to meet with involved persons from the Egypt project.

Evening - dinner at Dr. Galal's provided opportunity for informal discussions with US and Egyptian investigators

Dr. Allen provided Mexico data printouts. Report on these analyses was prepared after return to hotel.

January 10 9:00 - 6:00 Participated in continuing meeting of CRSP investigators as this addressed plans for data analyses to be presented in February at SCB and plans for analyses for the EEP meeting (date to be established)

A comparative report on analysis of Mexico data in relation to September analysis of Egypt data was distributed to Egypt PI's and to Dr. Allen but was not presented in the forum of the meeting.

Two meetings with Egypt project staff (Drs. Galal, Harrison, Kirksey, and Wafaa Moussa) and Dr. Horan. The first meeting was devoted to a review of validation studies, discussion of the limitations of past studies, definition of supplementary analyses to be arranged or conducted by myself, and planning of further validation studies to be conducted in Egypt and analysed in Toronto. The second meeting was addressed to issues arising in relation to the research data set. The need to delete certain

records containing incomplete information was identified and technical approaches to accomplishing this were discussed. (Later the feasibility of doing this was confirmed by telephone call to Norge Jerome by Drs Harrison and Galal). Plans for further analyses of the existing research data set, and of the set that would arise after deletions had been effected, were made; these are to be arranged by G.H. Beaton.

Dr. Wafaa Moussa was unavailable for further discussions since she was en route to the United States and had to make final preparations for that trip.

January 11, Morning. Drs. Beaton, Horan and Kirksey made a visit to the field site. I went with a member of the morbidity recall team to visit scheduled households, thereby providing some insight into the research setting and both difficulties and successes of data collection (e.g. the conscientious but unsuccessful attempt to locate the respondent for one of the less cooperative households). There was opportunity also to visit the BMR facilities and discuss the procedures with a field assistant. (It had been planned to run RMR's on Drs. Beaton and Horan so that they could be repeated when they visited Kenya - a valuable cross comparison given that there appears to be a significant difference between RMR results in the two populations. Unfortunately the operator was sick and could not make it to the village that day.) It was not possible to see food intake data collection in operation; none was being collected on the day we visited.

Afternoon and evening. Informal "debriefing" sessions were held: Kirksey, Horan, Beaton after return from field; Galal, Harrison, Horan, Beaton in early evening.

January 12 Return to Toronto. Institute staff picked me up at the hotel 4:00 am and delivered me to the airport. The balance of the day was spent in transit with arrival home approximately 20 hours later.

Comments

Egypt Food Intake Data . The situation appears less serious than early reports had suggested. Miscommunication and misinterpretation has been serious at all levels. There are problems in the data set but attempts are now underway to identify and either assess or eliminate the individual problems. New validation studies are planned. A detailed report by G.H. Beaton will be submitted to Management Entity and will be copied to the Egypt Project as soon as proposed analyses and reanalyses are completed. It will be appropriate also to encourage the Kenya and Mexico projects to develop and implement validation trials since it has emerged quite clearly that neither of those projects have as yet validated the final food intake methodology (earlier studies examined methods that were under development rather than the methodology finally adopted). In each case, data that can be published as validation of the independent variable could appropriately be developed and will be important to establishing the credibility of the final results whether these be presented in interproject or individual project format. It would be desirable to undertake both validation and variation analyses for all of the major variables. Thus, for example, differences in the RMR determinations between Egypt and Kenya, using the same equipment and supervised by a single reference investigator, will be an

extremely important research finding if it can be established that both projects can obtain the same measurement under the same conditions (hence the plan to determine RMR's on as many individuals moving between project sites as possible. This is an excellent plan and should be encouraged.)

Egypt Field Operations . The field visit was important to G.H. Beaton to give a better understanding of both the strengths and limitations of data that will have been collected. It is apparent that the Egyptian work schedule is a problem in the management of data collection. It certainly increases the number of field workers required, and hence the number to be trained and standardized; it may have resulted in a reduced identification of the field workers with the community. The facilities available to the project in the field site are limited and it appears that most work is carried back to the Institute for monitoring and processing rather than being consolidated in a field site. The BMR facility is in serious need of better temperature control if the conditions at the time of our visit were typical; Drs. Neumann and Carter had had RMR's run the previous day and commented that they were quite cold, almost to the point of shivering.

There was important, and very encouraging, evidence that Egyptian investigators were making use of recently acquired microcomputers to analyse some of the data being collected (in preparation for the meeting) and in the process were well on the way to identification of some of the critical analysis issues as well as gaining insight into the nature and precise purposes of the data being collected. Data entry is now proceeding in Cairo but not by the microcomputers; it is not clear whether attempts had been made to link the larger computer with the microcomputers or whether data for microcomputer analyses were being entered by hand. Either way the micro's are an asset and are helping to identify those members of the local team who have particular analytical interests, aptitudes and skills.

Meeting of Investigators Only the last two days were attended. In these two days certain impressions were gained that might not reflect the tenor of the total meeting. It appears that much of the trial analyses conducted to date have been largely descriptive in nature or have been based on comparison of subsets of the population. Concrete experience in, or plans for, "research hypothesis examination" did not dominate discussions. However in the process, certain common issues that require major interproject or management attention emerged; they will be issues for all individual projects and thus there is importance to developing and sharing strategies. The two that seem most urgent are: (i) approaches to the imputation of missing data, and (ii) approaches to the handling of "longitudinal" or "time series" data sets for the derivation of rates of change and for the definition of departures from expected change as a research outcome (or sometimes input) variable. The former of these, missing data, assumes extreme importance since it appears that all projects will have very substantial volumes of missing data for the individual variables (it is not yet known how these will be clustered in relation to time or subjects). Discussions in the meetings did not suggest concrete approaches at this stage. The latter (handling of data collected across time in the same individual) will be important since many outcomes depend on definition of a departure from normal within an individual (e.g. a "weight loss" or "growth faltering" associated with morbidity) and eventually time lapse analyses (which departure occurred first in the individual). This would seem to involve some quite elaborate statistical modelling which might be developed and tested in anticipation of final data. Such developments may be beyond the present resources of the individual projects and hence would warrant investigation on an interproject basis. (The problem is

made more difficult, and more important, by virtue of the concurrent problem of missing data. That is the modelling that is needed for analysis of time series data would seem to be useful also for imputing missing data in a time series.)

General Effective communication among busy people sometimes having different constructs of thinking or different perceptions of priorities is a continuing problem between and within projects. As we move into the analytical phase it will be extremely important to ensure that persons with analytical approaches emerge in each project since it will be among these individuals that the most effective communication is likely to develop. This will be a challenge for the individual projects and for the SCB.

Benefits Gained The major accomplishments of the trip were establishment of effective dialogue with the investigators concerned with food intake, and further orientation of G.H. Beaton to the realities of field conditions. Both of these benefits are of sufficient magnitude to have justified the modest costs involved in this trip.

Great appreciation is expressed to Dr. Galal and his associates in the Institute for their hospitality and for all the work they did to facilitate my visit.