Minutes of Pathways Meeting 3/13/02

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Handouts:
- Internal Comparisons of Baseline and Follow-up Cohorts on Baseline Variables. (Internal-comparison.doc 5-pages)
- Summary of Ever Use Comparisons between Baseline and 1 year for individual drugs (2-pages)
- Building a Tree summarizing paths of drug use up to stage 3. Part 1: 7 drug categories. (ptxx02d01.doc, 5 pages).

Additional Handout: (Not given at meeting)
- Building a Tree summarizing paths of drug use up to stage 3. Part 2: 7 drug categories. (ptxx02d02.doc, 2 pages).

Summary of Discussion

The purpose of the meeting was to review the results contained in the handouts, and plan for future analyses. Each of the handouts was discussed in order.

a. Internal Comparisons of Baseline and Follow-up Cohorts on Baseline Variables. (Internal-comparison.doc 5-pages)

There was some confusion in labeling the tables for the basic comparison. The two sets of columns in the tables correspond to two groups of subjects. The first column describes all subjects in the Pathway study where data were collected at baseline (note that this comparison includes several subjects that were to be excluded in the study, and should have been taken out). The second column describes 184 subjects that had completed a follow-up interview. The comparisons are made using responses reported at baseline. P-values for the comparisons indicate statistically significant differences between the averages of the variables between baseline and 1 year. It is important to remember that statistical significance does not imply practical differences.

The results indicate that subjects with follow-up were different from subjects at baseline in several aspects. The subjects had a history of less jail episodes, were less likely to have been arrested or put in jail for selling drugs, and were less likely to carry a gun in the past 30 days. Respondents at 1 year also were more likely to be female, and in school.

The pattern was consistent with what the group expected. There was a sense that those at follow-up may be less heavy ‘drug’ users, or less ‘violent’ or exposed to ‘violence’. We should compare 30 day and 48 hour drug use at baseline between the groups, and look for other variables that may relate to violence.
Finally, a predictive model for follow-up should be developed using a logistic regression approach, and analyses should use only eligible study subjects.

b. **Summary of Ever Use Comparisons between Baseline and 1 year for individual drugs (2-pages)**

The discussion of the handout on comparisons of ‘ever use’ of drugs was of interest. A section that introduces and provides a context for each table would be valuable. It may be helpful to consider arranging drugs in different groupings to more clearly identify patterns of agreement. For example, percents can be grouped using categories suggested by the observed results. In the first table, high proportions of use and consistent proportions were reported for Alcohol, exotic marijuana, and regular marijuana. It should be noted that some of the labels are cut off, and hence un-informative of the category of drug (this will be fixed).

The low agreement may have resulted for some drugs due to cross-reporting of ever use. For this reason, it will be helpful to create additional tables based on the 7 and 9 drug use categories. The idea of the tables is to try to identify drug groupings that are reliably reported for ‘ever use’.

A second consideration relates to 30 day drug use. If a subject reports using a drug in the past 30 days at baseline, they may be more likely to report ‘ever’ using the drug at follow-up. This gets at the issue of ‘one time use’ compared with more frequent use. A useful description would be a table that considers the baseline use to be based on ‘30-day past use’, and the follow-up use as ever use. Such a table will be developed.

Other discussion related to the order of asking the questions. If a question about ‘marijuana’ is asked first non-specifically, it will likely be answered “Yes” for a collection of drug categories including marijuana and additives. If the question is asked after a set of detailed questions about marijuana and additives, the answer may more likely reflect marijuana (only) use. This issue may also occur with other drugs.

c. **Building a Tree summarizing paths of drug use up to stage 3. Part 1: 7 drug categories. (ptxx02d01.doc, 5 pages) (and additional handout, ptx02d02.doc).**

There was general agreement with the strategy suggested for developing tree diagrams for pathways for drug use. The sense was that age at first use may not be critical, and hence the stages of drug use (which reflects ordering in a less specific manner) is adequate. The strategy of dividing up paths between two corresponding paths when simultaneous use is reported was considered reasonable.

According to the results in Part 1., in the 8 most common paths, there are n=248 subjects, with a range of 13 to 67 subjects per path. In the next 8 most common paths, there are n=60 subjects, with from 4 to 11 subjects per path. In the next 8 most common
paths, there are 24 subjects with 3 subjects per path. There are 11 paths with 2 subjects per path, and 48 paths with a single subject. This totals 83 paths and 402 subjects (indicating that there is an error somewhere in the table- to be corrected). Nevertheless, the results indicate that there are many paths, with some of them unique. The total number of paths with 2 or more subjects was 35.

It is noted that the figure produced to portrait paths for the first 3 stages of drug initiation did not include all subjects, and included 13 paths for n=272 subjects.

Using the 7-drug categories, paths were re-evaluated after splitting drug use into single paths when they occurred. This resulted in 19 paths followed by 2 or more subjects, with 15 paths followed by 2 or fewer subjects. This simplifies the picture.

The next step in the process is to evaluate a statistic of the subjects for each path, and then group paths based on common values of the statistic. Several candidates of a variable to use for the statistic were suggested. They are:

a. 30 day heroin or cocaine use  
b. 30 day ecstasy use  
c. 30 day dust use  
d. 30 day poly drug use (for example, counting the number of drug categories reported to have been used in the past 30 days).  
e. 48 hour- poly drug use (for example, counting the number of drugs categories reported to have been used in the past 48 hours).

These variables will be explored to simply the paths.

Finally, it is noted that these activities should be developed using the 9 drug grouping, not the 7 drug grouping.