Manual

Comprehensive Drinker Profile

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MANUAL FOR THE

Comprehensive Drinker Profile

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Introduction

Development of the Comprehensive Drinker Profile

The Comprehensive Drinker Profile (CDP) was first developed in 1971 as a structured intake interview procedure for assessing alcoholism in male inpatients. A revised version of this original instrument was published five years later (Marlatt, 1976). Since that time, the CDP has undergone extensive revision through several progressive forms developed for clinical and research applications. In its present form, the CDP is appropriate for use with both male and female clients entering any of a wide variety of treatment modalities in either inpatient or outpatient settings.

Purpose of the Profile

The CDP provides an intensive and comprehensive history and status of the individual client with regard to his or her use and abuse of alcohol. Content of the interview emphasizes information that is relevant to the selection, planning, and implementation of treatment. The CDP is also an appropriate intake data base for clinics and research programs desiring comparable pretreatment and follow-up evaluations. A parallel Follow-up Profile Interview has been developed for this purpose, providing post-treatment measures that can be compared with indices derived from the CDP (Miller & Marlatt, 1984).

The CDP covers a broad range of relevant information including basic demographics, family and employment status, history of problem development, current drinking pattern and problem status, severity of dependence, social aspects of alcohol use, associated behaviors, relevant medical history, motivations for drinking and for treatment, and other life problem areas. It incorporates the widely used Michigan Alcoholism Screening Test (Selzer, 1971) as part of the interview, providing a survey of current drinking problems as well as a summary score of problem severity. The CDP also yields *quantitative* indices of other dimensions including problem duration, family history of alcoholism, alcohol consumption, alcohol dependence, range of drinking situations, quantity/frequency of other drug use, range of beverages used, emotional factors related to drinking, and life problems other than drinking.

Format

The CDP is intended to be administered as a structured clinical interview, and normally requires 1-2 hours for completion. It may be used in conjunction with self-administered questionnaires such as the Alcohol Use Inventory (Wanberg, Horn, & Foster, 1977). For certain clinical and research purposes it may be desirable to corroborate client self-report by interviewing collateral sources such as family and friends (Miller, Crawford, & Taylor, 1979).

The CDP can be conducted, with proper training and practice, by a broad range of professional and paraprofessional personnel including psychologists, psychiatrists, social workers, nurses, counselors, and psychometric technicians. The interview is complex, however, and this manual should be studied carefully before CDP interviews are undertaken. Role-played practice interviews are highly recommended before patient interviews are begun.

The CDP kit includes this manual, individual interview forms, and eight reusable card sets that are required for administration of the interview.

Profile Outline

The CDP interview proceeds in a logically structured order, following this sequence of information within three major sections:

A. Demographic Information

Age and Residence (A1-A5)
Family Status (A6-A11)
Employment and Income Information (A12-A20)
Educational History (A21-A23)

B. Drinking History

Development of the Drinking Problem (B24-B29)
Present Drinking Pattern (B30-B37)
Pattern History (B38-B44)
Alcohol-Related Life Problems (B45)
Drinking Settings (B46-B47)
Associated Behaviors (B48-B55)
Beverage Preferences (B56-B57)
Relevant Medical History (B58-B65)

C. Motivational Information

Reasons for Drinking (C66-C72)
Effects of Drinking (C73-C74)
Other Life Problems (C75)
Motivation for Treatment (C76-C87)
Drinker Type Ratings (C88)

Administration of the CDP

Comments on Interview Style

The CDP is a structured interview, and is intended to be administered in one session and in the order presented. If necessary, however, the interview can be completed over more than one session. Order of information collection can also be modified, although the CDP is arranged in a carefully designed and tested sequence.

The best style for administering the CDP is a comfortable, conversational one. An empathic approach, reflecting the client's meaning and affect, is appropriate and is likely to elicit more honest information than will a skeptical, distrustful, or confrontational interview style. It is important that the interviewer be thoroughly familiar with the CDP format in order to avoid unnecessary reliance on the form or manual. An interviewer who must read questions from the form necessarily maintains less eye contact with the client, and may give the appearance of an impersonal pollster. Avoid having to refer constantly to the CDP format, and focus on the client instead. An interested, empathic, and nonjudgmental style of interviewing will elicit much information useful in later treatment.

The question of honesty of alcoholics is often raised, with the implication that alcohol-abusing individuals are prone to lying, deceit, and denial in every situation regarding their drinking. Although such incidents certainly occur, it has been the authors' experience that interviewer style is a much more powerful determinant of client honesty than is any "alcoholic personality" inherent in the clients themselves (Miller, 1976, 1983). A distrustful,

argumentative, and overtly confrontational style during the interview is likely to elicit client responses that are evasive and less than truthful. On the other hand, honest and accurate information is more likely to be elicited by asking clear and specific questions in a respectful and empathetic manner, and by responding to answers in a reflective fashion rather than with shock, disapproval, accusation, or judgment. The majority of studies evaluating the accuracy of alcoholics' self-reports have found reasonably good correspondence with other information sources when questions have been asked of clients in a specific and nonthreatening manner (e.g., Miller, Crawford, & Taylor, 1979). An informational interview conducted in empathetic fashion may also benefit the treatment process by increasing client motivation (Miller, 1983).

Some General Rules

A few general rules apply throughout the CDP. Following these suggestions will increase the interpretability of interview results and the usefulness of data to other staff.

Use a pencil rather than a pen. It is frequently necessary to change answers as further clarification is obtained, and this is much easier when responses have been recorded in pencil.

Print clearly. There is much detail in the CDP, and later deciphering of unclear handwriting can be difficult.

Fill every blank. When an item is not applicable to the client, print "NA" on the line. This makes it clear that the item was not overlooked, and helps to differentiate between missing data and zero values.

Check only one answer to multiple choice items, except where instructed otherwise. Note, however, that some items require *all applicable* alternatives to be checked. Follow instructions closely.

Record fully and carefully. The results of card sort items, for example, must be recorded in full before the cards are picked up. On open-ended questions, a client's additional or incidental comments may contain information essential to later understanding of the client's meaning or to content classification. *When in*

doubt, record. If CDP responses are to be content coded or computer analyzed, keep the coder in mind while conducting the interview.

Follow wording of questions. Each question within the CDP has been worded carefully, and it is recommended that the same wording be used while conducting the interview. To do this without sounding stilted or artificial requires a considerable familiarity with the instrument.

Do not read alternative responses. In multiple-choice items, it is not desirable to read alternative responses to the client. Rather, allow the client to answer the question, then select the appropriate alternative to match the answer given, or ask for further clarification as needed.

Perform calculations immediately after the interview. At several points in the CDP, calculations are required. These should not be done during the interview, but it is highly desirable to complete them immediately afterwards. This permits needed calculations to be done while the interview is still fresh in mind. In the event that insufficient information has been obtained for completion of the necessary calculations, the client should be recontacted for needed details.

Transition statements. Transition prose for use in the interview process is suggested in the guidelines that follow. Here the phrasing is not crucial, but rather is intended to promote a smooth interviewing style.

When To Interview

The best time to conduct the CDP will vary with client populations. For inpatients requiring detoxification, it certainly is best to wait a few days to a week, until the major agitation and disorientation of withdrawal have subsided.

In some cases the individual has a particular goal in presenting himself or herself; it may be admission to the program, mitigation of court penalties, disability or other financial benefits. To whatever extent possible, it is desirable to settle such questions before embarking on an extensive interview such as the CDP. Otherwise, the client's responses may be unduly influenced by his

or her motivations to achieve a certain goal. This is not always possible, of course, and collateral confirmation of self-report may be particularly valuable in such cases.

With outpatients, the administration of a blood alcohol concentration (BAC) screening test prior to interviewing is recommended as a standard practice. The easiest way to accomplish this is through breath testing via an instrument designed for BAC analysis (e.g., Intoximeter, Intoxilyzer). It is quite difficult to judge intoxication from overt behavior alone. A BAC test eliminates doubt on this matter, and ensures that one is interviewing a sober individual. As a general guideline, an interview should not proceed if the client's BAC exceeds 50 mg% (.050 g/100 ml).

Introducing the Interview

It is helpful, before beginning the interview, to give the client a general picture of the nature and purpose of the session. A sample introduction follows:

> *"Today I'm going to be talking with you for about two hours in order to learn more about you and your present situation. I'll be asking you a number of specific questions, and I'll be following a general outline that we use here at the clinic. I'll try to make the questions as clear as I can, but if you aren't sure what I mean please ask. The most important thing is for you to give answers that are as honest and accurate as possible. This information will help us later in planning the best treatment for you. There is nothing for you to fill out – I'm going to do most of the work today, but I do want to emphasize how important it is for you to be as accurate as possible in your answers. Are you ready to start?"*

A. Demographic Information

This first section of the CDP is straightforward. The exact wording of questions in this section is not crucial. A transition statement is appropriate to introduce this section; for example: *"First I want to ask you for some basic information."*

Age and Residence

A1. Ask for date of birth and age, and be sure that these two agree.

A2-3. Obtain present address and telephone, if any.

A4. Obtain the name and address of a stable individual, unlikely to move over the next five years, through whom the client could always be reached. This address is useful in locating a client for aftercare or follow-up, in the event that contact with the client has been lost.

A5. Ask how the client came to this program.

Family Status

A6. Ask, "*With whom are you living now?*" Check only one alternative.

A7. Ask whether the client is married. If YES, ask whether the client is currently living with his/her wife or husband. If NO, ask whether client has ever been married. Check only one alternative.

A8. Inquire as to how many times the client has been married. Include the present marriage (if applicable) in this number. Examples: Now married for the third time = 3. Currently divorced from the first marriage and not remarried = 1. Never married = 0. Do not leave blank.

A9-11. Obtain the names of people related to or living with the client. The lines marked "OK to call?" are for indicating whether or not the client approves of agency personnel contacting each individual. Print YES or NO on this line for each name obtained. *Explain to the client why a call* might be placed to these individuals, depending on particular local agency practices (e.g., for collateral information, for follow-up, to leave a message for the client). A NO on this line indicates that the client prefers that this individual not be aware of his or her contact with the agency, or at least that the individual not be contacted by the agency. For all children listed, record whether or not the child is living with the client (YES or NO).

Employment and Income Information

A12. Record the client's occupational skills (whether or not presently employed) and the spouse's occupation (if applicable).

A13. Check the one status that applies best. Attending school does not count as employment.

A14. Record title of present or most recent job. If the client currently engages in more than one type of work, record the job at which most hours are worked. If currently unemployed, note how long it has been since the client was employed.

A15. Record the name and address of the present or most recent employer. "OK to call" here indicates whether or not it is acceptable for the client to be called at the place of work, *not* whether the agency may contact the employer directly.

A16. Record how many years the client has worked in the present or most recent job. If less than one year, code as "1" and then record the actual length of time on the line indicated. For retired or unemployed individuals record the length of time in the most recent job.

A17. Record the number of jobs held within the past one year and past five years. Include jobs held during the past one year when recording the total held within the past five years. If the client is presently employed, include the present job in these totals.

A18. Record years of service in the armed forces. Use equivalent of years of full-time active duty service, not just reserve status years. If none, mark 0. Alternative service (e.g., conscientious objector) = 0. Do not leave this item blank.

A19. This question, sensitive for some clients, may be introduced with, *"What are your family's main sources of income?"* Then proceed to actual income obtained from each source. Total family income rather than individual client income is to be estimated here.

A20. If desired, socioeconomic status can be coded here for research purposes. The most common coding system is

that of Hollingshead and Redlich (1958) based on income, job title, and education. This may be omitted if SES is not of interest.

Educational History

A21. Record all educational training that the client has had, including formal degrees earned and major area of study, where appropriate.

A22. Translate A21 to total years of formal education. Examples: High School graduation (not G.E.D.) = 12. B.A. = 16 (even if it took 8 years of part-time study to complete the 4 years of B.A. education). Include full-time equivalent years of technical and vocational training. Do not leave this item blank.

A23. Record current education status. Check only one.

B. Drinking History

A transition statement is in order at the beginning of this section. An example: *"Now I would like to ask you some questions about your drinking history."*

This is the largest section of the CDP, and it is designed to obtain specific information about past and present drinking patterns and problems.

Development of the Drinking Problem

B24-25. Ask these questions as written. Do not leave blank. Record a specific age in years for each item.

B26. The first card set is used here, although this set is not sorted in any way by the client. This is the Drinker Types set (orange, cards A-1 through A-6), which consists of six cards describing drinking styles ranging from "Nondrinker" through "Alcoholic." Place these six cards in front of the client *in order* (with card A-1 on the left and card A-6 on the right in a single horizontal row) and say:

> *"Here are six cards describing different kinds of drinkers. Which one of these best describes the drinking habits of your MOTHER? Which one best describes*

the drinking habits of your FATHER? Which one best describes the drinking habits of your HUSBAND/WIFE/PARTNER?"

If the client has no spouse or partner, omit the last sentence and record "NA" on the spouse/partner line. The "mother" and "father" questions apply to the individuals whom the client regards to have been his or her mother or father (usually those by whom the client was raised), whether or not they were the biological parents. If the client does not know, code 0. Do not code "NA" for parents. If one of the individuals in question was considered by the client to have been a problem drinker or alcoholic at *some* time in his or her life, code that response (5 or 6) even if the person later became an abstainer or nonproblem drinker. If the individual in question was *never* a problem drinker or alcoholic in the client's opinion, code the one pattern that best describes the person's drinking habits for most of his or her life. Use one code only, not multiple codes.

B27. Ask as written. Note that this item refers only to *blood* relatives of the client, not to adoptive family. In each case, the number of known blood relatives believed by the client to be (or have been) problem drinkers *or* alcoholics is indicated in the left column. Note that male and female blood relatives are coded separately. Every line should be filled with either a whole number or 0. Finally, indicate whether or not the client was raised by his or her biological parents, and if not, by whom. (Instructions for scoring this and other scorable items are contained in the Scoring Procedures section of this manual.)

B28. Ask as written and record response. Code age of problem onset *or* place a check mark on the "denies" line. Do not record age *and* check the "denies" line. Calculate years of problem drinking (except for "denies" clients) by subtracting age at first problem from present age in years. Then ask the open-ended question as written, and record the client's response. (For optional content coding of this and other open-ended items consult Appendix A.)

B29. Ask, *"Did you arrive at your present level of drinking gradually over a long period of time, or by a more rapid increase over several months or less?"* Check only one

alternative. Here and elsewhere, make any additional notes to clarify the client's response.

Present Drinking Pattern

Obtaining an accurate picture of an individual's alcohol consumption pattern is not an easy process. One is unlikely to obtain reliable data simply by asking, "How much do you drink?" The structured interview procedure in this section is designed to guide the client step by step through a careful description of his or her drinking pattern. Although a client who desires to falsify data can still easily do so within this format, self-report data obtained through this structured interview procedure have been found to correspond well with data derived from collateral interviews using a similar format (e.g., Miller, Crawford, & Taylor, 1979).

Throughout this section an empathic style should be maintained. Many clients find themselves alarmed or surprised at the amount of drinking they are reporting, and some make comments to this effect. Such remarks should be reflected back (e.g., *"It seems like a lot to you."*) without making judgmental additions (*"You really are drinking too much."*) Some clients also grow impatient with the amount of detail required here. Empathic reflection of such impatience or frustration is again the best approach.

Some clients drink in a consistent fashion from week to week, whereas others are binge drinkers, and still others show both a steady and periodic drinking pattern. To deal with this complication, separate assessments of each client's steady drinking pattern and periodic drinking pattern are conducted. For some clients only the steady pattern will apply (i.e., drinking does not fluctuate substantially from one week to the next). For true binge drinkers who abstain between episodes, only the periodic pattern will need to be assessed because there is no regular weekly (steady) pattern. For still other clients who have a steady weekly pattern combined with periodic heavier drinking episodes, both patterns will require quantification.

B30. The first step is to determine which of the three drinking patterns best fits the client. This classification is *not* based on the client's or interviewer's subjective opinion as to which label best fits, but rather on the research criteria provided in B30.

First determine whether or not the client is a regular drinker (e.g., drinks at least some alcohol in an average week). If the client reports *no* regular weekly drinking (i.e., does not drink at least once per week, but instead has only episodes occurring less often than once weekly), then classify the client as a PERIODIC DRINKER (P) and skip to B33. If the client *does* report a regular weekly consumption pattern, the correct classification will be either STEADY DRINKER (S) or COMBINATION PATTERN DRINKER (C). In order to determine which of these two categories is correct, it will be necessary to proceed to B31 and complete the STEADY Pattern Chart, which is used for both STEADY and COMBINATION PATTERN drinkers. The difference between these two latter categories is specific: after determining the steady drinking pattern, determine whether there are other drinking occasions when the client drinks *more* than that. Specifically, in the past 3 months have there been episodes in which drinking exceeded the steady pattern by five (5) or more drinks per day on one or more days? (A standardized unit is used throughout this Profile to define a "drink." Consult the Scoring Procedures section of this manual.) To qualify as a COMBINATION PATTERN drinker the client must report one or more periodic drinking episodes in which alcohol consumption exceeded the steady pattern by at least five (5) drinks on at least one day. If such episodes have occurred the client is classified as a COMBINATION PATTERN DRINKER. If not, the correct classification is steady drinker. Note that these classifications are mutually exclusive categories, and that only one can be checked.

B31. Steady Pattern Chart. If the Steady Pattern Chart is to be completed (STEADY and COMBINATION PATTERN DRINKERS only), begin with these instructions. Adhere closely to the phrasing provided:

> *"Now I want to ask you about your regular drinking pattern. First I'd like to get a picture of a typical week of drinking. I realize that drinking will vary from day to day and from week to week, but I want to get an idea of your drinking during a typical week. If there are other special occasions, we will get to those later."*

Note that the Steady Pattern Chart divides a regular drinking week into 21 parts: morning, afternoon, and evening for each of the seven days. Fill in each of the 21 boxes by recording the type and amount of alcohol typically consumed (including the proof or percentage strength of alcohol content whenever possible), and the approximate time span (e.g., beginning and ending hours) over which it is consumed. Begin with weekdays, working through mornings, then afternoons, then evenings. Use these instructions to start:

> *"In a typical week – let's start with weekdays, Monday through Friday – what would you normally drink in the morning, from the time you get up until about lunchtime?"*

The latter phrasing is intended to provide permission for reporting morning drinking. Alternative phrasings such as *"Do you ever drink in the morning?"* may encourage falsification or minimization of morning drinking information.

The interviewer can help the client to be more specific by first asking *which* beverages are consumed, then how much of each. It helps to know ordinary drink sizes, e.g., standard bar draft of beer = 10 oz.; ordinary wine glass = 4 oz. (refer to Scoring Procedures section). The interviewer should be careful *not* to assume drink sizes. "One drink" of whiskey may mean an 8 oz. tumbler for one client, but a 1 oz. shot for another. *Ask for details.* After each reported type of drink for a given time block, ask: ". . . *and what else?*" Remember to ask about the time period over which the alcohol is usually consumed.

Clients should not be permitted to avoid answering by claiming that their drinking is too variable to estimate. One method to help clients specify an average amount is *bracketing.* This is accomplished by choosing an amount that is almost certainly too high *("More than two cases of beer?")*, then one that is probably too low *("More than two beers?")*, and continuing to narrow these upper and lower limits until a tighter range is achieved. When this range cannot be further contracted, the midpoint of the final range can be used.

Clients frequently volunteer a range, such as "three or four beers." In such cases it is useful to ask, *"Closer to*

three, or closer to four?" By specific behavioral interviewing of this kind, better specification of the typical drinking pattern can be achieved.

After covering weekday mornings, proceed thus:

> *"Now how about weekday afternoons, including what you drink with lunch up through the afternoon until dinner time. What would you normally drink on weekday afternoons?"*

Frequently afternoon drinking varies from day to day, and there may be a regular pattern such that certain days of the week are characterized by heavier drinking. In other cases the pattern may not be attached to particular days, but the client may be able to specify one pattern "on two days a week" and another for the remainder, etc.

The grid is then continued by inquiring about evenings:

> *"And now how about weekday evenings? What would you normally drink with dinner, up through the rest of the evening until the time you go to sleep?"*

Finally the grid is completed by repeating this entire process for weekend days. Separate inquiries are recommended for weekdays and weekends because drinking patterns on these days often differ widely. Repeat the query regarding morning drinking even if the client, when asked about morning drinking on weekdays, reported never drinking in the morning.

For any time block where no drinking is reported, enter a zero (0). *Do not leave any blank boxes.* An entry should be made in all 21 boxes of the grid. This prevents errors through omission of time periods. Be careful not to make restrictive assumptions (for example, that a client does not drink while driving or during working hours).

These procedures must be modified to accommodate clients with certain lifestyles or schedules (e.g., working night shifts, European meal patterns, etc.). Remember that the purpose of this grid is to obtain a well-specified estimate of drinking over the course of an average week.

B32. Quantity/frequency summary data are calculated from the Steady Pattern Chart according to instructions contained in the Scoring Procedures section of this manual.

If the client does not drink at least once per week but instead drinks only in episodes occurring less often than weekly, the entire Steady Pattern Chart is bypassed and items B31-32 are left blank.

B33. Episodic Pattern Chart. The Episodic Pattern Chart is designed to quantify alcohol consumption not included in the Steady Pattern Chart (B31). It is to be completed for all clients classified as either PERIODIC or COMBINATION PATTERN drinkers. For clients classified as STEADY drinkers at B30, skip this section and resume the interview with B38.

The Episodic Pattern Chart allows for the recording of up to three different types of periodic drinking episodes. The boxes are not intended for recording particular single episodes (although this can be done) but rather for *types* of drinking occasions on which consumption exceeds the regular steady pattern. That is, the episodes recorded here will, in most cases, represent recurring types of episodes.

For PERIODIC drinkers, quantify episodic drinking here by specifying the types(s) and amount(s) of alcohol usually consumed during a drinking episode, the span of time (hours) over which the amount is usually consumed, and the frequency of such episodes (number that have occurred within the past 3 months). For the calculation of SECs and BAC for each episode type, consult the Scoring Procedures section of this manual.

For COMBINATION drinkers, who also have reported a steady drinking pattern (B31), there is an important difference in how the Episodic Pattern Chart is completed. For these clients, record *only* those episodes that exceed the steady pattern (B31) by at least five drinks (SECs – see Scoring Procedures section) on at least one drinking day. Thus if a client normally has 6 drinks (SECs) on Saturdays (steady pattern, recorded in B31), a heavier Saturday consumption of 11 drinks or more *would* qualify as an additional episode, whereas an occasional Saturday of having 10 drinks (SECs) would *not* qualify. This is an arbitrary research criterion for determining when an episode "significantly exceeds" the client's regular, steady drinking pattern. (For clinical or research purposes, other criteria could be applied

if desired.) Episodes that qualify are recorded exactly as specified above for PERIODIC drinkers.

Up to three different types of episodes can be recorded (although one may suffice). For each type, specify the quantity, hours, and frequency as indicated. "Hours" refers to hours of continuous drinking, a fact needed for the estimation of peak BAC resulting from an episode.

B34. Just as data from the Steady Pattern Chart (B31) are summarized in B32, so data from the Episodic Pattern Chart (B33) are summarized here in a quantity/frequency estimate. For calculation instructions see the Scoring Procedures section of this manual.

B35-36. These two items apply only to PERIODIC or COMBINATION PATTERN drinkers. (For STEADY drinkers skip to B38.) Ask as written and record the client's responses. (For optional content coding of responses see Appendix A.)

B37. This item is a calculation, not a question to be asked during the interview. It combines quantity/frequency data obtained at B32 and B34, yielding a total quantity/frequency estimate for the past 3 months. Consult the Scoring Procedures section of this manual for instructions. Do not attempt to perform these or other calculations during the interview process. The interview resumes with B38.

Pattern History

This section on Pattern History is completed for all clients regardless of their classification at B30.

B38. Ask as written. Record types(s) of beverage(s), amount(s), and hours taken to consume the total amount. Calculations are to be completed following the interview, according to instructions provided in the Scoring Procedures section.

B39. Record in total hours. (1 day = 24 hours, etc.)

B40. Record in total days. (1 month = 30 days, etc.)

B41. Record how long ago. The purpose for this is to evaluate the most recent occasion on which withdrawal symptoms might have emerged. Record any medication used that

might have inhibited withdrawal symptoms. Record any indications of withdrawal signs.

B42-44. Ask as written and record client responses. (For optional content coding see Appendix A.)

Alcohol-Related Life Problems

B45. This section yields two important problem summary scores. The Michigan Alcoholism Screening Test (Selzer, 1971) is embedded in these questions and yields a score that reflects severity of life problems related to drinking. The Ph scale is designed to reflect degree of severity of dependence on alcohol, emphasizing indicators of pharmacologic dependence. Note, however, that "dependence" is conceived more broadly than pharmacologic addiction alone, and includes behavioral indices such as morning drinking blackouts, skipping meals, and hangover. This is consistent with more general definitions of dependence that have been employed in recent treatment evaluation research (e.g., Polich, Armor, & Braiker, 1981).

Administration of this portion of the CDP is straightforward. Ask the questions *exactly* as written, using the introductory statement provided. For each item, print either YES or NO on the response line (left column of lines). Do not leave any lines blank in this column. As for interviewing style in this section, be careful to take adequate time to read the list in a nonthreatening matter-of-fact manner. Do not rush through the items in "checklist" fashion. Give the person time to think about and answer each item. Scoring is done after the interview has been completed (consult instructions in the Scoring Procedures section of this manual).

Drinking Settings

The card sorting tasks begin here. For each of these there is a set of cards to be sorted by the client according to special instructions provided by the interviewer. It is not necessary to arrange the cards in any special order before giving each set to the client. For convenience, a set of title cards (cream color) is provided to separate and designate card sets.

The typical procedure for each set is to have the client sort the cards into two piles. One of the piles is then rank ordered, and this order is recorded by the interviewer. Follow specific instructions provided for each card set. Be sure to record all required information before removing the cards.

B46. Drinking Locations card sort (goldenrod; cards B-1 through B-9). First instructions:

> *"Now I am going to give you a set of cards, each one of which has a place or setting printed on it where drinking might occur. I want you to do two things with this set of cards. First, I want you to sort the cards into two piles. Place those cards in one pile, here on the left, that name places where you have done at least some drinking over the past six months or so. If the card names a place where you have done no drinking at all in the past six months, then place it in the other pile here on the right. You can have any number in each pile, and you may even end up with all cards in one pile. Do you have any questions?"* (Answer any questions, then wait until the client has completed this task. The cards from the NO pile on the right can be removed when this sorting is complete.) *"Next I want you to take this pile from the left and arrange the cards in order of where you have done most of your drinking over the past six months. Put the one card on top that names the place where you have done the most drinking. The next card should be where you have done the next greatest amount of drinking, and so on down until you reach the bottom, which is the card naming the place where you have done the least amount of drinking. Any questions?"*

Slight modifications in these instructions are acceptable. Precise wording is not essential here, but a clear explanation is vital so that the client understands exactly what is to be done.

After confirming that the top card is, in fact, the setting in which the *most* drinking is done (and bottom card the least), record the client's setting preferences by printing a "1" next to the most frequent location, a "2" next to the second most frequent, and so on until the end of the YES

stack is reached. Cards placed in the NO stack are not recorded, and the corresponding lines are left blank.

Other locations are recorded only if the client mentions them. Most drinking locations fit into one of the provided categories.

On the "Total Locations" line, record the total number of cards in the YES pile, which should correspond to the highest rank order number assigned above.

D47. The Social Situations card sort (green, cards C-1 through C-8) follows a similar pattern. Sample instructions follow:

> *"Now I am going to ask you to do something similar with another set of cards. These cards have various kinds of people listed on them, with whom you may or may not drink at various times. Again I would like you to sort the cards into two piles: on the left, those that list people with whom you have done at least some drinking in the past six months or so, and on the right those that list people with whom you have done no drinking at all in the past six months. Any questions? OK, sort these."* (The right NO pile is removed and then the instructions continue): *"Now I want you to take this pile from the left and arrange the cards in order of how much of your drinking time you have spent with each type of person. Put the one card on top that lists the person or people with whom you have done the most drinking over the past six months. Then arrange the rest of the cards to indicate people with whom you have done relatively less and less drinking. The card on the bottom should indicate the person or people with whom you have done the least drinking of all."*

When this sort is completed, record the rank ordering on the lines provided. Lines for cards in the NO pile are left blank, as before. The card ranked as "most frequent" is indicated by a "1," the next by a "2," and so on. Record the total number of cards placed in the YES pile.

Associated Behaviors

The interview now returns to a question format. A transition statement is in order, such as: *"Now I want to ask you about*

some other behaviors often related to drinking." A reassurance of confidentiality of the interview may be in order at this point because of the sensitive nature of the information that follows.

Questions in this section are straightforward. Record client responses carefully.

B48. Record cigarettes per day, or indicate "00" for nonsmokers. Do not leave blank. If the client has never smoked cigarettes, indicate "NA" on the second line; otherwise record time since last cigarette. Specify that it is tobacco (not marijuana) that is being queried. Indicate any other use of tobacco.

B49. Indicate the client's self-perceived state of overweight or underweight by recording the number of pounds away from ideal weight. Use the appropriate arithmetic sign for over (+) or underweight (−). If metric, specify kg instead of pounds.

B50. Record all medications used, including nonprescription over-the-counter medications such as vitamins and aspirin. Ask specifically about each class of medication mentioned. Record the name of medication, dosage (if known), frequency of use, and purpose of medication. Indicate those medications taken by physician prescription, by printing YES or NO in the "Rx" column. For medications whose name or dosage is unknown, have the client check the prescription label.

B51. Information regarding other drug use is obtained via the Other Drugs card sort (grey; cards D-1 through D-9). This permits nonverbal acknowledgement of drug use, which may be less threatening than direct questioning. Instructions for introducing this card sort are as follows:

> *"Here is a third set of cards for you to sort. Each card names a type of drug that people sometimes use. In the pile on the left I would like you to place those cards that name a kind of drug that you have tried at least once in your life. In the pile on the right, place the cards that name drugs you have never tried at all."* (When this has been completed, remove the pile on the right and then continue): *"Now I would like you to*

arrange these cards from the left pile according to how often you have taken each drug. On top, put the card that names the kind of drug you have used most often in your life, then the next most often, and so on down to the one you have used least often in your lifetime."

When this process is finished, record the rankings on the Profile, marking the most frequently used drug as "1," the next as "2," and so on. As before, cards from the NO pile are indicated by leaving the corresponding lines blank.

Finally, inquire further regarding all drugs named in the left YES pile. Obtain and record the following information, as available: specific drugs used in each category, date of most recent use, frequency within the past 3 months, method of administration (oral, intravenous, inhaled, etc.), and any information about dose level. If not used in the past 3 months, enter "0" in the Frequency column but complete all other columns, including dose and method of administration at most recent use. Record the total number of cards placed in the YES pile (ever used) and the total number used in the past three months.

B52. Record hobbies and interests as indicated, hours per month spent at each, and whether or not the client usually drinks in association with each.

B53. Record eating habits as requested. Do not leave any of the short lines blank: record number of days for each, ranging from minimum of 0 to maximum of 7 days per week.

B54. Ask these three questions exactly as indicated. The client may require clarification on the concept of percentage *("Out of 100 times when you drive, on how many would you wear a seat belt?")* In nations using metric units and/or maximum speed limits other than 55 mph, revise the second question accordingly. If the amount of a "drink" is questioned in the third item, define one drink as one Standard Ethanol Content (SEC) unit (see Scoring Procedures section).

B55. Inquire about regular exercise, including any exercise that is part of the client's regular routine (e.g., bicycling to work).

Beverage Preferences

B56. The Beverage Preferences card sort is given here (yellow; cards E-1 through E-18). Instructions are as follows:

> *"Here is another set of cards, each of which has the name of a kind of beverage that contains alcohol. I want you to sort these into two piles like the others: those on the left that you do drink, at least from time to time, and those on the right that you never have drunk, as far as you can remember."* (When this is completed remove the pile on the right and continue): *"Now arrange these cards in order of how often you drink each kind of beverage. Put the card on top that names the one you drink most often now. Then arrange the rest of the cards to show which beverage you drink second most often, third most often, and so on. The card on the bottom should name the beverage that you now drink least often of all."*

Indicate the rank ordering by numbering as before. Note that beverages are arranged on the Profile form in alphabetical order for your convenience. Cards placed in the NO pile are indicated by leaving the corresponding lines blank. For the top three YES cards only (the three most commonly consumed beverages), determine and record the preferred brand and manner of drinking.

Note: It is common for clients to confuse "liqueurs" with "liquor." If the liqueur card (E-4) is included in the YES pile, ascertain that this is what the client means. Liqueurs are cordials such as Drambuie, Cointreau, Creme de Menthe, etc. Liquors are described in this card sort by their specific names: brandy, gin, vodka, whiskey, etc. It helps for the interviewer to have a thorough working knowledge of alcohol beverages. Clients may also be confused by the "Pure Alcohol" card (E-6). This card refers both to pure distilled ethanol (sold in some liquor stores under brand names such as "Everclear") and to nonbeverage alcohols not intended for drinking (methanol, isopropyl). Ensure that the client is not confusing "nonbeverage alcohol" with "nonalcohol beverage." When nonbeverage alcohol is included in the list, specify type and preferred manner of drinking

whether or not it is included among the three most frequently consumed beverages. Record the total number of cards placed in the YES pile.

B57. Specify here the client's favorite beverages that do not contain alcohol.

Relevant Medical History

B58. Actual measurement is preferable to client self-report of weight and height.

B59-65. Ask these questions as written. A transition statement into these questions may be useful: *"Now I am going to ask you some questions about your medical history and any health problems you have had."* Record answers carefully. These are selected questions with specific implications for contraindication of certain treatment procedures (e.g., controlled drinking, physically stressful interventions such as aversion therapies). These questions also provide limited information on physical sequelae of the client's alcohol abuse. Depending on the client population, a supplementary medical examination may be advisable.

C. Motivational Information

Reasons for Drinking

Here the interview shifts focus to a motivational analysis. Again a transitional statement is recommended, such as: *"Now I want to change direction a bit and ask you about some of the reasons for your drinking in the past."*

Ask questions C66-72 exactly as written. Record responses carefully. (Optional content coding procedures are available in Appendix A.)

Effects of Drinking

C73. This card sort focuses on Effects of Drinking (gold; cards F-1a through F25e). Instructions are as follows:

> *"Now I am interested in knowing more about the kinds of effects that alcohol has on you when you are drinking. Alcohol affects different people in different ways.*

I am going to give you another set of cards with various possible effects of drinking. I would like you to place on the left those that describe effects that alcohol has on you when you are actually drinking. Put those on the right that are effects you do not get from alcohol while you are drinking. Any questions?"

This card sort is recorded differently from the others. Remove the right NO pile, then take up the pile from the left and immediately *check* (√) all effects from this YES pile on the Profile form. The entries here are checkmarks, not numbers. The code number of each card includes a lower case letter to help you locate its group on the Profile: Card 3a belongs to Group A, 7b to Group B, etc. Mark all YES responses on the Profile form before giving the next set of instructions:

"Now I want you to take this pile from the left, and from these cards pick out the five that are most accurate descriptions of how alcohol affects you when you are drinking." (Wait until these five have been selected, then continue): *"Now please arrange these five cards in order, from the one that happens most often to you when you are drinking, down to the effect you feel least often while you are drinking."*

When the client has finished this, record in order the five top effects, specifying the most frequent effect on the top line (Rank 1). Record any elaborating comments made by the client.

The "most representative" emotion group is determined according to decision rules specified in the Scoring Procedures section of this manual.

C74. This question is open-ended. The interviewer asks, *"Suppose that we were to agree that you would not drink at all for the next two weeks."* A brief pause is in order following this proposition, to give the client time to consider the possibility. Then continue: *"What problems do you think you might have if you did this? Would there be any special feelings or situations that might be more difficult for you to handle?"* Record the client's responses

in detail. This question is intended to assess "psychological dependence" on alcohol, areas where the client relies upon alcohol's effects for coping purposes. (For optional content coding categories see Appendix A.) This item is placed here because it assesses effects of drinking that are important motivational factors in maintaining alcohol consumption.

Other Life Problems

C75. The Other Life Problems card sort evaluates current difficulties other than drinking, whether or not they are related to alcohol consumption (tan; cards G-1 through G-18). There are four steps required to complete this card sort. Begin with the instruction:

> *"Now here is one more set of cards for you to sort. These cards describe other problems that people sometimes have. These may or may not be related to drinking. In the pile on the left I want you to place the cards that describe things that are at least somewhat of a problem for you currently. In the pile on the right place the cards describing things that are not at all problematic for you right now."*

No recording is required at this point. Remove the right pile and continue:

> *"Now I want you to arrange this pile from the left according to how much of a problem each one is for you now. On top put the one that is the biggest problem, and next the second biggest problem, and so on down to the one that is the smallest problem for you now."*

When this has been completed, record the rank ordering of problems by placing a "1" next to the problem area at the top of the pile, a "2" next, and so on down to the bottom and least significant problem. Note that the problem list is arranged on the Profile form in alphabetical order for your convenience. Rank lines that correspond to cards placed in the right (no problem) pile are left blank.

Third, for all YES cards inquire whether the problem is or is not at least partly related to drinking, in the client's opinion: *"For each one of these cards, I would like your opinion as to whether or not the problem is at least partly related to drinking."* Place a checkmark (√) *only* beside those problems considered by the client to be alcohol-related. On the *total* lines provided record the total number of problems (the number of cards placed in the left YES pile) and the total number of problems perceived to be alcohol-related (the number of checkmarks in the column on the right).

Finally, take the top three problems from the YES pile and ask the client to describe them to you in greater detail, to tell you more about them. Record responses carefully. (There is no content coding for this section.)

Motivation for Treatment

C76. Ask as written and record the client's response. (For optional content coding see Appendix A.)

C77. Ask as written and record response.

C78-79. Ask as written. Check YES or NO. Do not leave blank. If YES specify.

C80-81. Ask as written and record responses. (For optional content coding categories see Appendix A.)

C82. This item requires use of the six Treatment Goals cards (blue; cards H-1 through H-6). The cards must be arranged *in order* in front of the client: H-1, H-2, H-3, H-4, H-5, H-6. Ask: *"Which of these six statements best describes your own goal (in this program)?"* On the Profile form, mark (√) the one chosen. If more than one is chosen, indicate which is first preference (1), and second preference (2).

C83. Ask as written. If abstinence is specified as the ideal goal, print "0" on the TOTAL SECs line. If a level of drinking greater than zero is specified as ideal, record in detail and then (after interview) calculate the total SECs per week using the methods described in the Scoring Procedures section of this manual.

C84. Ask as written. Record percentage. Do not leave blank. No chance of succeeding = 0%. Absolute certainty of success = 100%.

C85-86. Ask as written and record responses. (For optional content coding categories see Appendix A.)

C87. Ask exactly as written. Do not leave blank, and check only one alternative – the one with which the client agrees more strongly.

Drinker Type Ratings

C88. This item reuses the Drinker Types card set (orange; cards A-1 through A-6). Place the cards *in order* in front of the client and say:

> *"Here are six different types of drinkers, and I would like you to tell me which one, in your opinion, best describes you at the present time."*

After giving this instruction, note which card the client indicates, and record the number of that card (1, 2, 3, 4, 5, or 6) on the line marked "Self." Do not leave blank. Then if the client is living with a spouse or partner say:

> *"Now I'd like you to tell me the one that you think your (husband/wife/partner) would choose as best describing you."*

Record this rating. Do not leave blank if the client lives with a partner. If the client is not living with a partner, mark this line NA and skip to the next instruction:

> *"Which one do you think your closest friend would choose as best describing you?"*

Record this rating. Do not leave blank. Then ask:

> *"Which one do you think most people who know you would choose as best describing you."*

Record this rating. Do not leave blank.

Finally, check whether the rating given for "Self" is higher than, equal to, or lower than the rating given for "Most People." "Higher than" is defined as a higher numerical rating. Thus if the "Self" rating is 5 and the "Most People" rating is 4, the interviewer would mark line (1) higher than "most."

Scoring Procedures for the CDP

Several sections of the CDP require scoring in order to derive quantitative indices. Scoring procedures are detailed here, arranged according to the sequence of the Profile interview.

Family History (B27)

A quantitative index of strength of family history of alcoholism is derived by summing weighted scores of male and female blood relatives reported as problem drinkers or alcoholics. Numerical weights inversely reflect first, second, and third degree relatives, so that relatives closer in the blood line contribute a higher weighted score than do more distant relatives.

Male and female relatives are tabulated separately. The left column contains the *number* of relatives in each category reported as problem drinkers or alcoholics. These totals are multiplied by the numerical weights in the center column, and the products are recorded on the lines in the column on the right. Thus if a client reports that two brothers have also had drinking problems, a "2" would be recorded in the "Male" column and then multiplied by the numerical weight (3) to yield a product of 6. Finally the products are totaled separately for male and female relatives, to yield indices of male and female family history of alcohol problems. An example of correct scoring for this item is shown in Table 1.

Table 1

	Number Males	Number Females
Parents?	0 ×3= ___	1 ×3= 3
Brothers or Sisters?	2 ×3= 6	0 ×3= ___
Grandparents?	0 ×2= ___	1 ×2= 2
Uncles or Aunts?	0 ×2= ___	2 ×2= 4
First Cousins?	1 ×1= 1	2 ×1= 2
TOTAL SCORES	Males: 7 *	Females: 11 *

Converting Alcohol Consumption into Standard Units

At B31, as well as several subsequent points in the CDP, it is necessary to convert alcohol consumption information into standardized units. This enables the calculation of the actual amount of ethyl alcohol consumed, combining across diverse beverages. It also provides a standard unit by which pretreatment and follow-up levels of consumption can be compared.

Alcohol consumption calculations in the CDP are based on a Standard Ethanol Content (SEC) unit that is equal to one-half ounce (15 ml.) of pure ethyl alcohol. This unit is used for two reasons: (1) it corresponds roughly to what many individuals think of as "one drink," and (2) it is easily converted to and from ounces of ethanol by multiplying or dividing by 2. Each of the following drinks contains one SEC (0.5 oz. ethanol):

10 ounces of beer (5% alcohol)
4 ounces of wine (12% alcohol)
2.50 ounces of fortified wine (20% alcohol)
1.25 ounces of 80 proof spirits (40% alcohol)
1.00 ounces of 100 proof spirits (50% alcohol)

The formula for converting any alcohol-containing beverage into SEC units is:

SECs = oz. beverage x % alcohol x 2

The logic of this equation is as follows. Multiplying the number of ounces of beverage by the proportion of alcohol in that beverage (expressed as a decimal) yields the number of ounces of pure alcohol consumed. Because a full ounce of ethanol is equal to two "drinks" (SECs), this is multiplied by 2. Here are a few examples for converting alcohol consumption into SEC units:

1 can (12 oz.)	of lager beer (5% alcohol)	12 oz. x .05 x 2 = 1.2 SECs
1 6-pack	(6 x 12 oz.) of lager beer	72 oz. x .05 x 2 = 7.2 SECs
1 half pint (8 oz.)	of vodka (80 proof or 40%)	8 oz. x .40 x 2 = 6.4 SECs
3 glasses (4 oz. each)	of table wine (12% alcohol)	12 oz. x .12 x 2 = 2.88 SECs
1 pint (16 oz.)	of port wine (20% alcohol)	16 oz. x .20 x 2 = 6.4 SECs

The alcohol concentration of all wines and spirits is reported on the label. The strength of beer often is not reported, but assays of American beer suggest that 5% is the average concentration. The "proof" of distilled spirits in the U.S. is just twice the alcohol concentration. Thus 80 proof = 40%; 86 proof = 43%, etc.

The Steady Pattern Chart (B31)

For each day within the Steady Pattern Chart, alcohol consumption is converted into SEC units by totaling across the rows. These daily SEC estimates are then totaled down the column (across seven days) to arrive at the estimate of Total SECs per week. This total is recorded at the bottom of the chart, and is also transferred to B32.

"Total drinking (nonabstinent) days reported" is simply the number of days (maximum of 7) within an average week that the client consumes any amount of alcohol. Daily drinker = 7. Saturday and Sunday drinker only = 2.

The average number of drinks per drinking day is calculated by dividing Total SECs per week (line A) by the number of drinking days per week (line B).

Finally, a blood alcohol concentration (BAC) peak for an average week of drinking may be estimated, based on reported consumption. This is done by finding the day(s) of heaviest drinking, then using a BAC table (see Appendix D), slide-rule calculator (Rutgers Center of Alcohol Studies, 1983), or computer-assisted calculation system (e.g., Matthews & Miller, 1979) to arrive at an estimate of peak BAC. Such calculations usually take into account the client's body weight and sex.

Episodic Pattern Chart (B33)

Similar calculations are performed for periodic drinking episodes. The total amount of alcohol consumed per episode is converted into SEC units. A BAC peak can also be estimated based on the total amount of alcohol consumed and the total hours taken to consume it. If more than one type of episode is reported, separate calculations are completed for each type.

Quantity/Frequency Summary Data (B32, B34, B37)

The quantity/frequency summary method permits combination of steady and periodic drinking patterns. At B32, the total alcohol consumed during regular "steady drinking" is calculated by multiplying the Total SECs per week (from the Steady Pattern Chart) by 13 (weeks in 3 months).

At B34 (just to the right of B33, the Episodic Pattern Chart), the total SECs consumed per episode is multiplied by the total number of such episodes that have occurred during the prior 3 months. Up to three such calculations can be made, based on three different kinds of episodes that have occurred. Totaling down this column at B34 yields the total amount of alcohol consumed (expressed as SECs) during periodic episodes over the past 3 months.

Note that for COMBINATION PATTERN DRINKERS it is important not to duplicate drinks here. Drinks that are part of the regular steady drinking pattern should not be counted again as part of a periodic episode. Only drinks *above and beyond* the

steady pattern are counted at B34. Otherwise client alcohol consumption will be overestimated.

Finally the totals from B32 + B34 are summed at B37 to calculate the total number of SECs that have been consumed over the prior 3 months, considering both steady and periodic drinking patterns.

Maximum Consumption (B38)

The largest amount of alcohol ever consumed in one day is converted into SEC units, and peak BAC is estimated using the same procedures described above for B31.

Alcohol-Related Life Problems (B45)

This section (B45) of the CDP is an interviewer-administered version of Selzer's (1971) Michigan Alcoholism Screening Test (MAST), with minor modifications including the addition of several questions to yield an index of physical dependence on alcohol (Ph).

Scoring of this section requires careful attention. Note that to the right of each item there is a line on which the interviewer is to record either YES or NO. Next to each of these lines is a letter in parentheses: either (Y) or (N). This indicates the "critical direction" of the item, the answer that results in assignment of points. Thus for item 1, "(N)" indicates that the critical answer is "NO." If the item has been answered "No," the client receives 2 points. If the client has answered "Yes," no points are assigned.

The number of points to be assigned when a client gives the critical answer is found in parentheses on the scoring lines. Notice that for some items there is only one scoring line, (for example, items 1, 3, 5, 26-31), whereas for others there are two scoring lines (for example, items 2, 4, 7). When an item with two scoring lines is answered in the critical direction, points are recorded on *both* lines. The entry to be made on the scoring line is always the number of points in the parentheses in that line. If the item is not answered in the critical direction, no entry is made on any scoring line. The numerical weights in the left (MAST) column

are those originally assigned by Selzer (1971) according to subjective ratings of symptom severity. The numerical weights in the right (Ph) column were assigned by the authors, based on subjective ratings on each symptom's strength of indication of pharmacologic dependence on alcohol.

The procedure for scoring is as follows. Examine each item to determine whether the client's answer corresponds with the "critical direction" answer in parentheses next to that line. If the client's answer is the same as the critical answer (e.g., the client answers "Yes" and the critical direction is indicated to be "Y"), then record the proper number of points on the scoring line(s) for that item. When the answer given by the client does *not* correspond to the critical direction (e.g., critical direction is "N" and the client answers "Yes"), leave the scoring lines blank for that item. Follow this procedure for all 31 items within B45. A correctly scored protocol is shown in Table 2.

Table 2

ITEM	RESPONSE	SCORE
1. Do you feel you are a normal drinker?	NO (N)	2 (2)
2. Have you ever awakened the morning after some drinking the night before and found that you could not remember a part of the evening before?	YES (Y)	2 (2) 1 (1)
3. Does any member of your family (wife, husband, parents, etc.) ever worry or complain about your drinking?	YES (Y)	1 (1)
4. Can you stop drinking without a struggle after one or two drinks?	YES (N)	___ (2) ___ (2)
5. Do you ever feel bad about your drinking?	YES (Y)	1 (1)
6. Do friends or relatives think you are a normal drinker?	NO (N)	2 (2)

ITEM	RESPONSE	SCORE
7. Are you always able to stop drinking when you want to?	NO (N)	2 (2) 1 (1)
8. Have you ever attended a meeting of Alcoholics Anonymous (AA)? (If YES, about how many? _____)	NO (Y)	___(5)
9. Have you gotten into fights when drinking?	NO (Y)	___(1)
10. Has drinking ever created problems with you and your spouse (husband/wife)?	YES (Y)	2 (2)
11. Has your spouse (or other family member) ever gone to anyone for help about your drinking?	NO (Y)	___(2)
12. Have you ever lost friends or lovers because of your drinking?	YES (Y)	2 (2)
13. Have you ever gotten into trouble at work because of drinking?	NO (Y)	___(2)
14. Have you ever lost a job because of drinking?	NO (Y)	___(2)
15. Have you ever neglected your obligations, your family, or your work for two or more days in a row because you were drinking?	YES (Y)	2 (2)
16. Do you ever drink before noon?	YES (Y)	1 (1) 1 (1)
17. Have you ever been told you have liver trouble?	NO (Y)	___(2)

ITEM	RESPONSE	SCORE
18. Have you ever had severe shaking after heavy drinking?	YES (Y)	3 (3) 2 (2) 18 or 19
19. Have you ever heard voices or seen things that weren't there after heavy drinking?	NO (Y)	___(4)
20. Have you ever gone to anyone for help about your drinking?	YES (Y)	5 (5)
21. Have you ever been in a hospital because of drinking?	NO (Y)	___(5)
TOTAL points, this page (total both columns)		24 (A-1) 6 (B-1)
22. Have you ever been a patient in a psychiatric hospital or on a psychiatric ward of a general hospital?	YES	
If YES, was drinking part of the problem?	NO (Y)	___(2)

DESCRIBE: _____

_____

23. Have you ever been seen at a psychiatric or mental health clinic, or gone to a doctor, social worker, or clergy for help with an emotional problem?	YES	
If YES, did drinking play a part in the problem?	YES (Y)	2 (2)

DESCRIBE: _____

_____

ITEM	RESPONSE	SCORE
24. Have you ever been arrested, even for a few hours, because of drunk behavior? (other than driving)	NO (Y)	___(2)

DESCRIBE: _____

_____

25. Have you ever been arrested for drunk driving or driving after drinking?	NO (Y)	___(2)

DESCRIBE: _____

_____

26. Have you ever had a hangover?	YES (Y)	1 (1)
27. Have you ever had vague feelings of fear, anxiety, or nervousness after drinking?	YES (Y)	1 (1)
28. Have you ever felt a craving or strong need for a drink?	YES (Y)	1 (1)
29. Are you able to drink more now than you used to without feeling the same effect?	YES (Y)	1 (1)
30. Has drinking or stopping drinking ever resulted in your having a seizure or convulsion?	NO (Y)	___(4)
31. Do you ever skip meals when you are drinking?	YES (Y)	1 (1)

	A-2	B-2
TOTAL points, this page (total both columns)	2	5

TOTAL PROBLEM SCORES

*Total Column A for both pages 24 (A-1) + 2 (A-2) = 26 * (MAST Score)

*Total Column B for both pages 6 (B-1) + 5 (B-2) = 11 * (Ph Score)

When all 31 items have been scored, total the points that have been assigned in each column: Column A, the left column, yields the MAST score; Column B, the column on the right, yields the Alcohol Dependence (Ph) score. Obtain subtotals for each of the two pages of B45, then sum subtotals from the two pages to yield final total scores in these two columns.

Effects of Drinking (C73)

From the Effects of Drinking card sort (C73), a determination is made of the "most representative emotion group" among the five groups of possible emotional effects of drinking. Follow these rules to determine the most representative group. If one group of the five has *more checkmarks* than any other, this is the "most representative" group. If two or more groups are tied for the highest number of checkmarks, then a tie-breaking system is used based on the location of the client's five most frequent effects (rank-ordered 1 through 5 by the client during the interview). The group obtaining the most frequent effect of drinking (rank order #1) receives 5 points. The group containing the second most frequent effect (rank #2) receives 4 points. The third most frequent effect is worth 3 points, the fourth most frequent is worth 2 points, and the least frequent effect of the top five (rank order #5) is worth 1 point. Of the groups tied with the most checkmarks, that group having the highest total weighted points becomes the most representative. In the event that a tie remains after this procedure, the group (of those still tied) that contains the most frequent (lowest rank number) effect from among the top five is designated as the most representative.

When the most representative group has been determined, record the letter of this group on the designated line at C73.

Ideal Goal (C83)

The last item that requires scoring is the client's designation of an ideal level of posttreatment drinking at C83. If the client designates total abstinence as the ideal outcome, record "00" here. If the client specifies an optimal level of weekly drinking, convert it into SEC units and record the total.

Computer Coding of Quantitative Items

Many of the items of the CDP yield quantitative scores and can easily be coded for purposes of computer analysis. These quantitative items are indicated throughout the Profile by means of asterisks (*). (For a suggested data entry format, consult Appendix B.)

Content Coding of Open-ended Questions

The CDP also contains a number of open-ended questions. If quantitative content analysis is desired, responses to these questions can be coded into categories. Suggested categories for content coding are provided in Appendix A. Marlatt (1976) has reported that independent raters using these categories were able to show at least 80% agreement on each item.

Interpretation

The CDP is designed to provide a comprehensive data base that is useful both for research and for individual treatment purposes.

The means and ranges of quantitative scores from the CDP vary widely depending on the population being studied. For comparative purposes, normative data are provided on selected quantitative variables from a sample of 103 outpatients of a clinic for problem drinkers, based in the Department of Psychology at the University of New Mexico (Appendix C). Note, however, that these norms reflect considerably less severity of symptoms than would be found in a typical inpatient population, and that individuals may be better compared to norms derived from the specific population being treated or studied.

Specific interpretation of information from the CDP depends in part on the purposes to which the Profile is to be applied and on the clinical judgment of the interviewer. The following guidelines are provided to assist with the interpretation process, with special reference to information helpful in the selection and process of treatment.

A. Demographic Information

Interpretation of demographic information is straightforward. Nevertheless, the basic data collected in this section can provide relevant input for treatment selection. Regarding the choice of appropriate treatment goal, for example, research has suggested that clients most likely to succeed in attaining and maintaining moderate nonproblem drinking tend to be younger (under 40) and to show less severe drinking problems, whereas those

sustaining successful abstinence are often older and have had more severe alcoholism (Miller & Hester, 1980; Miller & Joyce, 1979). Marital status can also be of prognostic importance. Married clients have been reported to be more successful in sustaining total abstinence than single clients, who may have better success in sustaining moderate nonproblem drinking — particularly young, single men (Polich, Armor, & Braiker, 1981). Marital and employment status in general have been found to be predictive of alcoholism treatment outcome, with married and employed clients having more favorable prognosis, at least in abstinence-oriented programs (Azrin et al., 1982; Neuberger et al., 1980). Job-finding counseling and social interventions may be differentially beneficial to unemployed or single clients (Azrin et al., 1982).

Aspects of the client's living situation should also be considered in treatment planning. Family therapy has been found to be beneficial to clients having intact families (Miller & Hester, 1980). Income may place restrictions on the range of private treatment options available. A treatment approach compatible with the client's educational level is desirable. Employment and child care responsibilities may affect willingness to consider inpatient treatment. The spouse, children, or others living with the client (A9-11) may provide valuable additional perspectives on the client's drinking and general adjustment before, during, and following the formal treatment process.

B. Drinking History

This section of the Profile provides a wealth of information relevant to treatment selection and planning. The use of such information in differential treatment selection assumes, of course, that alternative interventions are *available* to the client. The provision of such alternatives is warranted for several reasons. There is no single treatment approach that is effective for all, or even the majority of clients who abuse alcohol (Miller & Hester, 1980). Having alternative interventions available increases the chances of finding one that is appropriate, acceptable, and effective for the individual. Kissin et al. (1971) found that patients given a choice of treatment options were more successful than those assigned to a single option. The choice of treatment strategy from among alternatives allows for greater perceived control by the client, and

permits better matching of intervention to client needs and expectations. This can result in a number of benefits including decreased drop-out and resistance, increased compliance, and improved overall effectiveness of the program (Costello, 1975; Miller, 1984; Parker, Winstead, & Willi, 1979).

Development of the Drinking Problem

Duration of drinking (B24), of drinking to intoxication (B25), and of problem drinking (B28) may be helpful in evaluating present status. Orford (1973) reported that clients who succeeded in sustaining moderate and nonproblem drinking following treatment had had shorter durations of problem drinking. Likewise a family history of drinking problems or the presence of problematic drinking in the spouse (B26-27) may be important considerations. Evidence increasingly points to an inheritable predisposition to drinking problems (Goodwin, 1976). Miller and Joyce (1979) found that clients who reported problem drinking in the father were more likely to attain abstinence than controlled drinking. At the present time sufficient data are lacking to make definitive treatment assignments based on such factors, but present evidence suggests at least a trend toward the advisability of abstinence for those whose drinking problems are also echoed in a family history. The presence of a problem drinking spouse would indicate the need for joint treatment.

Present Drinking Pattern

The data collected here yield total consumption estimates for both steady and periodic drinking patterns, as appropriate. An estimate of the client's peak blood alcohol concentration during typical drinking episodes can also be derived. This information can be of use in diagnostic, motivational, and intervention phases. The absolute level of drinking gives some indication of the client's at-risk status. Medical research suggests that alcohol consumption in excess of three SECs per day increases the individual's risk of a wide variety of acute and chronic diseases (Miller, Rozynko, & Hamburg, 1983). Higher levels of regular daily consumption raise the possibility of pharmacologic dependence and the need for supervised detoxification. The client's peak BAC during regular,

episodic, and heaviest drinking (B31, 33, 38) gives a rough index of the client's tolerance for ethanol. Normal social drinkers would be expected to exceed a BAC of 80 mg% very seldom. Alcohol consumption projected to produce high BAC levels is indicative of acquired tolerance, particularly if the client reports the absence of intoxication signs that would be expected to appear in normal individuals (Miller & Muñoz, 1982).

Comparison of the client's own regular consumption level with that of the normal population may have motivational value, since some clients do not appreciate how excessive their consumption is (Miller, 1983, 1984). Individual consumption can be compared with national figures (e.g., Miller & Muñoz, 1982), or with norms for the particular group to which the individual belongs (e.g., Cahalan, Cisin, & Crossley, 1969).

The particular pattern of consumption and situational factors associated with the onset (B35) and cessation (B36) of drinking may provide clues to high-risk antecedents of drinking and of relapse, and to coping skills that the individual may need to acquire in order to avoid reversion to problem drinking (Cummings, Gordon, & Marlatt, 1980; Marlatt & Gordon, 1984).

Pattern History

These questions are intended to provide additional data relevant to treatment planning. The most recent period of abstinence (B41) may provide important information on the probability of withdrawal symptoms and the need for detoxification. The duration of drinking binges, success at sustaining abstinence (B39-41), and stated reasons for stopping and resuming drinking (B42-43) may point to needed interventions. An episodic drinking pattern with predictable antecedents, for example, suggests value in clarifying the characteristics of high-risk situations and in identifying relapse prevention strategies (Marlatt & Gordon, 1984).

Alcohol-Related Life Problems

Two problem severity scores are derived from B45. The first score, reflective of alcohol-related problems in general, is the total weighted score of the full Michigan Alcoholism Screening

Test (MAST) as described by Selzer (1971). Selzer's original purpose was to produce an instrument that would yield a dichotomous determination of the presence or absence of alcoholism, and he recommended that individuals scoring at or above 5 on this scale be considered alcoholics. In most treatment settings, however, this is of little prognostic value because clients rather uniformly score above 5. (The exception to this is in early intervention screening settings, especially those where clients are motivated to minimize problems, such as drunk driver screening programs.) On the other hand, a continuous rather than dichotomous interpretation of this scale can provide useful information (cf. Miller, 1976). In seeking differential predictors of abstinent vs. moderate drinking outcomes, Miller and Joyce (1979) found the MAST score to be the best single predictor, with higher scores at intake (M = 28) associated with posttreatment abstinence, and lower pretreatment scores (M = 17) predicting successful controlled drinking following treatment. At 2-year follow-up the pretreatment MAST score remained the best discriminator of abstinent (M = 23) vs. moderate drinking outcomes (M = 15). Although these scores alone cannot be used for definitive choice of treatment goal, a cut-score of 20 seems a reasonable break point for predicting abstinence vs. moderation, based on these data.

Also of prognostic importance, however, is the second score derived from this section: Alcohol Dependence. "Dependence" is defined here in a broad sense. Although direct indicators of withdrawal from pharmacologic addiction are given the heaviest weights in score calculation, indirect behavioral indicators of a developing physical dependence are also included (e.g., morning drinking, inability to stop without a struggle, hangover, tolerance). This is consistent with the definition of dependence used in the major national study by Polich et al. (1981). These investigators found level of dependence at intake to be a differential predictor of outcome and relapse. Clients with high levels of alcohol dependence at intake were more likely to achieve abstinent than moderation outcomes, and were also more likely to relapse from moderate nonproblem drinking than from abstinence. Clients with low levels of dependence, by contrast, (especially young, single males) were more likely to relapse from abstinence than from moderation. Data from other investigations are quite consistent with this finding, suggesting that higher levels of dependence predict poor prognosis in "controlled drinking" and better prognosis with a well-conceived

abstinence approach (Miller & Hester, 1980). Again the separation is less than perfect, but the trend is clear.

Severity labels for score ranges on these two scales remain somewhat arbitrary. The following ranges are suggested as working guidelines:

MAST Score

01-04 = Mild problems with drinking
05-10 = Moderate problems with drinking
11-20 = Significant problems with drinking
21-53 = Severe problems with drinking

Alcohol Dependence Score

01-04 = Mild symptoms of dependence
05-10 = Definite and significant symptoms of dependence
11-14 = Substantial dependence
15-20 = Severe dependence

Total reliance on the overall score is not recommended, however, because a score of 10, for example, can be achieved in various ways. The particular items answered in the critical direction should be noted. These may provide material for more detailed inquiry during subsequent sessions.

Drinking Settings Card Sorts

These two card sorts provide detail about the locations and social situations that typically accompany the client's drinking. The overall totals reflect the extent to which drinking has permeated the individual's entire lifestyle, but more importantly these card sorts provide clues to antecedents of overdrinking and potential barriers to recovery.

Associated Behaviors

Smoking behavior can be an important concomitant to drinking because of the close association between alcohol and tobacco use. Miller, Hedrick, and Taylor (1983) found that successful smoking cessation was associated with successful resolution of drinking problems, and that relapse to smoking was predictive of relapse

to drinking. This finding suggests that, contrary to conventional belief, it may be beneficial to include smoking cessation procedures within alcoholism treatment programs.

Weight considerations are also included here because a state of being either underweight or overweight can represent a health and personal concern for clients, and may require eventual intervention.

Of key importance is knowledge of the client's use of other medications, both prescription and nonprescription. Special emphasis has been given at B51 to common drugs of abuse. Concerns include cross-tolerance, multiple dependence, and possible substance substitution following treatment for alcohol abuse.

Interests and hobbies are queried at B52 because for some clients drinking has served to occupy and structure a substantial proportion of their time in the past, and lifestyle changes may be required if the client is to avoid relapse to prior drinking habits (Marlatt & Gordon, 1984). Eating, driving, and exercise behaviors are likewise health concerns. Adequate nutrition and regular exercise may serve to decrease the likelihood of relapse. Driving behavior questions are intended to assess risk-taking and to provide important information about the client's combination of drinking and driving.

Beverage Preferences

This section yields additional detail about past drinking habits. This information can be particularly useful when aversive conditioning strategies are to be undertaken to help the client reduce desire for alcohol. Chemical aversion therapies have been offered in inpatient settings since the 1930s, and the technique of covert sensitization represents a promising newer aversion method appropriate for outpatient settings (Miller & Hester, 1980). Within controlled drinking programs, the substitution of previously nonpreferred beverages may help to decelerate drinking, especially if the change is from more to less concentrated beverages (Miller & Muñoz, 1982).

Relevant Medical History

Current weight recorded at B58 is needed to calculate blood alcohol concentration estimates. Other questions explore elements of the client's medical history that may indicate or contraindicate certain treatment approaches. A history of heart disease, for example, may contraindicate aversion therapy or other stressful procedures. Disulfiram prescription is contraindicated by a history of liver disease. Clients who have sustained significant health damage from drinking are best advised to abstain from alcohol altogether because continued drinking poses the risk of exacerbating an already serious condition (Miller & Caddy, 1977). Planned or actual pregnancy (B65) contraindicates drinking in any amount because of the risk of fetal damage.

C. Motivational Information

Reasons for Drinking

The questions of this section probe the client's motivations for drinking. Miller (1983, 1984) has proposed a dynamic conception of motivation for change, whereby clients balance perceived positive benefits of drinking against perceived negative consequences. This section provides information about both sides of the balance, from the client's viewpoint, which may suggest directions for motivational intervention.

Effects of Drinking

Reported emotional effects that occur with drinking are also relevant as potential motivations for alcohol consumption. Whether or not the client actually experiences these emotions during drinking, the perception that alcohol use produces them may be significant. Groups A (well-being) and D (confidence) are positive emotional sequelae, whereas groups B (negative affect), C (anxiety) and E (self-deprecation) represent unpleasant effects. YES responses in Group A or D may indicate the need for the client to learn alternative ways of achieving these positive emotional states, those in Groups B, C, and E may point to negative

emotional states for which the client needs additional coping skills. The final question of this section (C74) is often diagnostically important, pointing to areas of "psychological dependence" (inability to cope or difficulty in coping without alcohol). Problems, feelings, and situations mentioned here represent important topics for further exploration and intervention.

Other Life Problems

The client is asked to identify other life problem areas, whether or not they are perceived to be alcohol-related. This is important information for the course of counseling. The identification of a problem at C75 does not necessarily indicate the need for direct intervention. Often such problems show substantial improvement without direct treatment, once the alcohol problem has been resolved (Miller et al., 1983). Nor is it necessarily the case that treating these additional problems will affect drinking behavior (Miller, Taylor, & West, 1980). Nevertheless it is worthwhile to monitor these problem areas as treatment progresses. One simple procedure for doing so is a modification of Kiresuk's Goal Attainment Scaling (Miller et al., 1983). In this procedure a careful description of each problem area is taken at intake. The interviewer also helps the client to define three gradations of possible improvement (+1 to +3) and potential deterioration (−1 to −3). At subsequent follow-up points the interviewer reviews these problems with the client and determines whether there has been no change (0), improvement (+1, +2, or +3), or deterioration (−1, −2, or −3) relative to baseline. Outcome classification categories should be mutually exclusive and, as much as possible, based on quantifiable and observable criteria. Once the client's problematic drinking has been modified, direct treatment may be justifiable for problems that remain unremitted. Certain problems, of course, may require more immediate attention (e.g., suicidal thoughts, legal problems).

The total number of problems is a rough index of overall life adjustment, at least from the client's point of view. Total problems perceived to be alcohol-related is an index of the client's attribution of life difficulties in general to the effects of overdrinking. Clients make both kinds of errors: incorrectly attributing a

life problem to drinking (and thus being surprised when it continues or worsens during sobriety), and incorrectly denying that the problem is alcohol-related. Problems that are perceived to be due to overdrinking may be useful as motivational elements.

Motivation for Treatment

Several sets of items explore the client's motivational balance regarding treatment (Miller, 1983). Questions C76-79 clarify what interventions have been tried in the past, and with what results. Having this information allows the counselor to avoid an unknowing recommendation of methods that have already been tried unsuccessfully, and that are therefore likely to be viewed with some pessimism by the client. New interventions may be focused on alternatives not already tried, which may afford greater optimism while also avoiding previously unsuccessful methods.

Questions C80 and C85 directly query the positive and negative motivations for entering treatment at this time. Questions C81-83 ask about the client's own goal in treatment, the outcomes that he or she perceives to be desirable, and C84 queries the client's subjective optimism for reaching the goal. Matching treatment intervention to the client's goals and expectations may decrease the chances of drop-out and increase compliance (Miller, 1984). Also relevant in this regard are the client's own conceptions about the nature of alcoholism, reflected in questions C86-87.

Drinker Type Ratings

In C88 one final aspect of motivation is investigated. Some clients express concern about their own drinking, even though those around them have no such concerns. Others protest that they have no problems with alcohol while those around them disagree. In still other cases there is unanimity. Information about who perceives the problem can be quite helpful in designing interventions for motivation and change.

References

Azrin, N. H., Sisson, R. W., Meyers, R., & Godley, M. (1982). Alcoholism treatment by disulfiram and community reinforcement therapy. *Journal of Behavior Therapy and Experimental Psychiatry, 13,* 105-112.

Cahalan, D., Cisin, I. H., & Crossley, H. M. (1969). *American drinking practices.* New Brunswick, NJ: Rutgers Center of Alcoholic Studies.

Costello, R. M. (1975). Alcoholism treatment and evaluation: In search of methods. *International Journal of the Addictions, 10,* 251-275.

Cummings, C., Gordon, J. R., & Marlatt, G. A. (1980). Relapse: Prevention and prediction. In W. R. Miller (Ed.), *The addictive behaviors: Treatment of alcoholism, drug abuse, smoking, and obesity.* Oxford: Pergamon Press.

Goodwin, D. W. (1976). *Is alcoholism hereditary?* New York: Oxford University Press.

Hollingshead, A. B., & Redlich, F. (1958). *Social class and mental illness.* New York: Wiley.

Kissin, B., Platz, A., & Su, W. H. (1971). Selective factors in treatment choice and outcome in alcoholics. In N. H. Mello & J. H. Mendelson (Eds.), *Recent advances in studies of alcoholism.* Washington, D.C.: U. S. Government Printing Office.

Marlatt, G. A. (1976). The drinking profile: A questionnaire for the behavioral assessment of alcoholism. In E. J. Mash & L. G. Terdal (Eds.), *Behavior therapy assessment: Diagnosis, design, and evaluation.* New York: Springer.

Marlatt, G. A., & Gordon, J. R. (1984). *Relapse prevention: Self-control strategies for addictive behaviors.* New York: Guilford Press.

Matthews, D. B., & Miller, W. R. (1979). Estimating blood alcohol concentration: Two computer programs and their applications in therapy and research. *Addictive Behaviors, 4*, 55-60.

Miller, W. R. (1976). Alcoholism scales and objective assessment methods: A review. *Psychological Bulletin, 83*, 649-674.

Miller, W. R. (1983). Motivational interviewing with problem drinkers. *Behavioural Psychotherapy, 11*, 147-172.

Miller, W. R. (1984). Motivation for treatment: A review. Manuscript submitted for publication.

Miller, W. R., & Caddy, G. R. (1977). Abstinence and controlled drinking in the treatment of problem drinkers. *Journal of Studies on Alcohol, 38*, 986-1003.

Miller, W. R., Crawford, V. L., & Taylor, C. A. (1979). Significant others as corroborative sources for problem drinkers. *Addictive Behaviors, 4*, 67-70.

Miller, W. R., Hedrick, K. E., & Taylor, C.A. (1983). Addictive behaviors and life problems before and after behavioral treatment of problem drinkers. *Addictive Behaviors, 8*, 403-412.

Miller, W. R., & Hester, R. K. (1980). Treating the problem drinker: Modern approaches. In W. R. Miller (Ed.), *The addictive behaviors: Treatment of alcoholism, drug abuse, smoking, and obesity.* Oxford: Pergamon Press.

Miller, W. R., & Joyce, M. A. (1979). Prediction of abstinence, controlled drinking, and heavy drinking outcomes following behavioral self-control training. *Journal of Consulting and Clinical Psychology, 47*, 773-775.

Miller, W. R., & Marlatt, G. A., (1984). *The Follow-up Profile Interview.* (Rev. ed.) (Available from William R. Miller, Ph.D., Department of Psychology, University of New Mexico, Albuquerque, NM 87131.)

Miller, W. R., & Muñoz, R. F. (1982). *How to control your drinking.* (Rev. ed.) Albuquerque: University of New Mexico Press.

Miller, W. R., Rozynko, V., & Hamburg, S. R. (1983). *Understanding alcoholism and problem drinking.* Davis, CA: International Dialogue Press.

Miller, W. R., Taylor, C.A., & West, J. C. (1980) Focused versus broad-spectrum therapy for problem drinkers. *Journal of Consulting and Clinical Psychology, 48*, 590-601.

Neubuerger, O. W., Matarazzo, J. D., Schmidt, R. E., & Pratt, H. (1980). One year follow-up of total abstinence in chronic alcoholic patients following emetic counter-conditioning. *Alcoholism: Clinical and Experimental Research, 4*, 306-312.

Orford, J. A. (1973). A comparison of alcoholics whose drinking is totally uncontrolled and those whose drinking is mainly controlled. *Behaviour Research and Therapy, 11*, 565-576.

Parker, M. W., Winstead, D. K., & Willi, F. J. P. (1979). Patient autonomy in alcohol rehabilitation: I. Literature review. *International Journal of the Addictions, 14*, 1015-1022.

Polich, J. M., Armor, D. J., & Braiker, H. B. (1981). *The course of alcoholism: Four years after treatment.* New York: Wiley.

Rutgers University Center of Alcohol Studies. (1983). *Alco-calculator: An educational instrument.* Piscataway, NJ: Journal of Studies on Alcohol.

Selzer, M. L. (1971). The Michigan Alcoholism Screening Test: The quest for a new diagnostic instrument. *American Journal of Psychiatry, 127*, 1653-1658.

Wanberg, K. W., Horn, J. L., & Foster, F. M. (1977). A differential assessment model for alcoholism: The scales of the Alcohol Use Inventory, *Journal of Studies on Alcohol, 38*, 512-543.

Appendices

Appendix A: Suggested Rules for Content Analysis of Open-Ended Questions

General Rules

1. Score **None** only when no answer is given, client refuses to reply, or the written answer is illegible. A "not applicable" response is scored Miscl.
2. Use the **Miscellaneous** category sparingly. When in doubt between a regular category and the Miscl. category, assign response to the regular category. Use only when the reply does not fit any other category to some degree.
3. If a *series* of reasons or effects, etc., is given, score only the *main* response, as determined by wording or other emphasis: "main reason," "most important," etc. If no single response stands out as the main response, score the *first* response.
4. Score the *literal* response whenever possible, unless it is felt that there would be close to 100% agreement as to scoring the inferred response. In all other cases, inference should be minimal, and the literal meaning assigned to categories.

Circumstances leading to initiation of problem drinking: Questions B28, B35, B43

Categories

A. **None:** no reason given or denies drinking is a problem, or unclassifiable.

Intrapersonal (categories B, C, and D): explicit or implicit self-reference only; no reference to other people or to explicit environmental or "outside" causal factors.

B. **Coping with emotions:** coping with an aversive emotional state (including illness); coping or escaping with/from fear, anxiety, worry, tension, excitement, etc. (including active and passive negative emotions such as anger and frustration, loneliness, bored feelings, etc.). Examples: "get away from self-created problems," "cope with hangovers," "strain and tension," "to take care of nerves."

C. **Positive emotions:** reasons dealing with or creating or maintaining a positive physical or emotional state, *excluding* mention of other people or interpersonal situation; drinking for positive effects of alcohol. Examples: "began to like drinking a lot," "recreation," "like the effects."

D. **Miscellaneous:** to be used only when categories B and C do not apply, yet the reason given is intrapersonal in nature.

Interpersonal/Environmental (categories E through I): reference to other people, and/or to environmental circumstances, regardless of specificity.

E. **Interpersonal conflict:** conflict or frustration associated with any interpersonal relationship, such as marriage, friendship, family patterns (*including* death and separation). Examples: "jealousy about wife," "marriage problems," "fights with parents," "husband died."

F. **Social pressure:** pressure from others to drink, including peer groups, high-drinking settings (armed forces, tavern work, etc.) which does *not* involve interpersonal conflict as defined above. Examples: "the crowd I hung around with drank a lot," "went into service," "going along with the boys," "long hours working in a tavern."

G. **Occupational problems:** any problem or conflict associated with job or finances (arguing with boss would be scored in this category, not under D). Examples: "business was bad," "money problems," "lost my job," "boring job."

H. **Misfortune or accident:** environmental circumstances beyond control of the individual; personal misfortune not classifiable

under above categories. Examples: "car accident," "series of arrests." Personal *illness* would *not* be scored here, but under category B.

I. **Miscellaneous:** to be used only when categories E-H do not apply, yet reason given is interpersonal or environmental in nature.

Circumstances leading to the cessation of drinking: Questions B36, B42

Categories

A. **Physical illness:** cessation of drinking due to physical illness or debilitation, or through physical effects which make it impossible to continue drinking. Examples: "stomach burns and cramps," "sickness and shaking," "so sick I couldn't get up," "health reasons."

B. **External constraint:** cessation of drinking caused by factors external to the person (other than interpersonal restraint as defined below), such as being arrested, professional intervention or treatment, administration of Antabuse (other than the voluntary taking of Antabuse; if not specified as voluntary, assign to *this* category), threat of termination of employment, etc. Examples: "had to go to work," "in jail," "had a car accident and was arrested," "ended up in the hospital," "ran out of funds."

C. **Self-Determination:** cessation due to voluntary reasons: exercise of will power, decision to stop, etc. Also: clear indications of the individual's attempt to *seek out help*, in the form of treatment, A.A., taking Antabuse, etc. If *no indication* is made of the person's voluntarily seeking such help, assign to category B. Examples: "talked to Rev. X at the Mission," "just decided to quit," "took a notion to stop," "went to A.A. meetings," "went to hospital for medication," "will power," "wanted to stay sober."

D. **Interpersonal restraint/concern:** cessation through feelings of guilt or concern for others (family, friends, etc.), or in response to pressures put on by others (family, friends, etc.): professional intervention or pressure should be assigned to category B, above. Examples: "had to behave with my

family," "wanted to keep girlfriend," "my wife threatened to leave," "a friend talked me out of it," "I was concerned how it was affecting my friends."

E. **Miscellaneous:** no reply; can't remember; or any other non-classifiable reason.

Reasons for Drinking: Questions B44, C67-68, C74

Categories: Each response is to be assigned to one of Groups I, II, or III; and also to subcategory A, B, C, D, or E as defined below (except Group I).

Major Categories:

I. **None:** no reason given ("no, none, don't know," etc.) or illegible or unclassifiable.

II. **Intrapersonal:** explicit or implicit self-reference only; no reference to other people *or* to explicit environmental or "outside" causal factors.

III. **Interpersonal/Environmental:** reference to other people, and/or to environmental circumstances, regardless of specificity.

Specific Categories (for responses in Groups II & III)

A. **Negative emotions — Active:** negative emotions with high activation, anger, or acting out component: frustration, anger, disgust, aggravation, etc.

Examples, Group II: "disgusted with myself," "aggravation with myself."
Examples, Group III: "anger at my wife/kids," "arguing with family."

B. **Negative emotions — Passive:** negative emotions with low activation, passive response or "acting in" component: depression, boredom, remorse, insecurity, low self-esteem, inadequacy, etc.

Examples, Group II: "lonely/bored," "I'm not the person I want to be."

Examples, Group III: "disowned by folks," "lost my job," "husband died."

C. **Positive emotions:** reasons dealing with or creating or maintaining a positive physical or emotional state, or positive social or environmental situation; drinking for the positive effects of alcohol.

Examples, Group II: "love to drink," "get high," "happy and feel good."

Examples, Group III: "get together with friends and have a good time," "helps me meet people," "helps get women in bars."

D. **Coping with emotions:** reasons dealing with coping with an aversive emotional state: *coping or escaping with/from fear,* anxiety, worry, tension, excitement, etc. (excluding active and passive negative emotions).

Examples, Group II: "to calm down," "relieve tension," "get over my worries."

Examples, Group III: "afraid my wife would leave me," "afraid of legal problems."

E. **Miscellaneous:** to be used only when categories A-D do not apply.

Examples: "I like the taste," "thirsty."

Reasons for Drinking: Situations under which the client is least likely to drink: Question C72

Categories

A. **None:** no situations given, no answer.

B. **Interpersonal situations:** situations involving the presence

of others as the primary restraint (excluding employment situations).

Examples: "when with my father," "attending church," "at important social event," "visiting my kids," "at A.A. meetings," "playing football," "around happy people."

C. **Environmental situations:** situations involving environmental events or constraint; not involving the necessary presence of others, and excluding intrapersonal state.

Examples: "while driving," "watching TV," "at the movies," "on a trip," "in a library," "in jail," "while in hospital."

D. **Employment situations:** situations which involve employment concerns or on the job settings only (or to prevent loss of job, etc.).

Examples: "when actively working," "when I get a good job," "in front of the boss."

E. **Physical illness or inability to drink:** situations involving inability to drink because of physical inability, illness, etc.

Examples: "when sick," "so ill I can't drink any more," "at the end of a binge," "can't hold any more down," "too weak to take another drink," "Antabuse."

F. **Intrapersonal state — Positive:** situations involving a positive intrapersonal state (excluding others), as when person is free of problems, in a good mood, things are going well, etc.

Examples: "things going good," "all bills paid up," "happy mood," "if something good happens," "feeling fine."

G. **Intrapersonal state — Other:** situations involving *other* than a positive intrapersonal mood or state, including negative states, mobilization for emergency, etc., excluding presence of others.

Examples: "when depressed," "when I get really upset or angry," "when I'm really scared," "when I have to be sober to cope," "if something bad were about to happen," "if I was about to lose my house."

H. **Miscellaneous:** not otherwise classifiable.

Positive Effects of Drinking: Questions C66, C69

Categories

A. **None:** no answer, can't think of any positive effects, etc.

B. **Tension reduction:** escape, avoidance, or coping with negative emotional states or unpleasant situations. Emphasis on intrapersonal effects.

Examples: "relaxation," "feeling calm," "peaceful," "problems dissolve," "forget troubles," "can think clearly about problems," "helps me cope."

C. **Positive feelings:** increased intrapersonal positive feelings or activity or physical effects of alcohol (without mention of *decrease* in tension or negative emotions).

Examples: "glow," "get high," "get happy," "feeling good," "relieves boredom," "warm feelings," "something to do with my time," "liquor tastes good," "makes me laugh."

D. **Power and control:** increased self-esteem, strength of self, superiority feelings; may be intrapersonal or interpersonal in nature (should be distinguished from categories B and E).

Examples: "feel stronger," "more secure about myself," "feel more powerful;" score only responses which are explicit to increase of power and control.

E. **Interpersonal enhancement:** facilitates relationships with other people.

Examples: "can open up more with people," "helps me get along better with my wife," "talk to people," "makes me more socially outgoing."

F. **Miscellaneous:** not otherwise classifiable.

Negative Effects of Drinking: Questions C70-71

Categories

A. **None:** no answer

B. **Negative physical effects or symptoms:** immediate or eventual physically negative effects of drinking, including symptoms of the effect of alcohol or prolonged drinking (excluding

emotions or actions which are not necessarily the direct effect of alcohol). Cognitive effects are to be scored in Category C, however.

Examples: "feel sick," "get drunk," "nausea," "liver damage," "hangovers," "dizzy," "lose physical control," "staggering and tremors," "D.T.s," "loss of appetite," "shakes," "headaches."

C. **Cognitive deficit or change:** alteration or change of cognitive processes, including thinking, beliefs, perceptions, memory, planning, etc. Memory changes elicited by alcohol are included. Exclude emotions or actions not necessarily the direct effect of alcohol.

Examples: "can't think straight," "confused thoughts," "can't remember things," "blackouts and/or memory loss," "think the same things over and over." "things don't look right," "remember bad things that happened," "think of the past."

D. **Negative emotions and feelings:** increase or change in emotion or feeling, intrapersonal in nature, including active and passive emotions. Responses with the stem, "I feel...." would be scored here, with the exception of physical symptoms or cognitive deficit.

Examples: "I feel bad," "get angry," "depressed," "guilty," "suicidal feeling," "hostility," "lonely feeling," "feel foolish or embarrassed or shameful."

E. **Negative actions or consequences:** all actions engaged in by the client toward self, others, or the environment, *or* actions or opinions employed by others against the client, including loss of others or lowered status. General comments about decline, involvement in trouble, etc. are included.

Examples: "miss work, lose job," "get into trouble or arrested," "car accident," "financial loss," "loss of husband or family or home," "end up in jail or hospital," "people think less of you," "ruined my life," "lost opportunities," "arguments," "only drunks talk to me now," "my kids hate me," "I'm considered a bum," "lose interest in sex."

F. **Miscellaneous:** not otherwise classifiable.

Motivation: Self-initiated attempts to stop drinking: Question C76

Categories

A. **None:** no attempts made, no answer given; indicates client stopped without reason given.

B. **Attempts to change own behavior without outside help:** exercise of will power or determination to stop, changed habits or drinking patterns, etc.

Examples: "tried to stop on my own," "stayed away from taverns," "stayed at home," "stopped drinking hard stuff," "cut down," "abstinence."

Attempts to seek out help from others (self-motivated help seeking); assign to one of the following categories:

C. **Alcoholics Anonymous:** any attempt to seek out A.A. assistance.

D. **Professional help or medication:** attempts to seek such assistance.

Examples: "committed myself to hospital," "Antabuse," "went for psychotherapy," "talked to my doctor," "went to see my clergyman."

E. **Nonprofessional help or guidance:** attempts to seek any other form of assistance.

Examples: "asked my husband for help," "went with a woman who helped me."

F. **Miscellaneous:** not otherwise classifiable.

Motivation: Reasons for present help-seeking: Question C80

Categories

A. **None:** no reasons given, no answer.

B. **Involuntary admission:** involuntary commitment, by court order or as alternative to jail or fine, or by petition.

Examples: "no choice, sent by sheriff," "bond dropped by D.A.," "alternative to 30 days in jail," "wife filed summons."

C. **Voluntary — No reason given or specified:** voluntary admission, with no reason given, or expectations stated.

Examples: "voluntary," "asked to be brought here," "came here on my own."

D. **Voluntary — On the advice of professionals or A.A.:** voluntary admission, on the recommendation of professional person or A.A. person (excluding family and friends).

Examples: "A.A. counselor sent me," "doctor at Madison General told me to go," "family doctor advised it," "my minister suggested I come."

E. **Voluntary — For family reasons or on advice of friends:** to appease family, or to meet family pressures or threats; advice of friends or employers; employment concerns.

Examples: "my family needs me sober," "wife threatened to leave me," "my kids said I should come," "boss said it would be a good thing for me," "separation papers," "marriage breaking up," "on the advice of a friend."

F. **Voluntary — Health problems:** voluntary admission, based on declining health, or negative effects of drinking which are physical in nature (see category G).

Examples: "D.T.s," "feared seizures," "would have died otherwise," "health."

G. **Voluntary — Recognition of condition:** voluntary, recognition of severity of problem (other than health), or need for help, or desire for improvement.

Examples: "had all I could take," "to get better," "figured I needed help," "disgusted with myself," "unable to help myself," "wanted to get a better life."

H. **Miscellaneous:** not otherwise classifiable.

Motivation: Ideal outcome of treatment: Question C81

Categories

A. **None:** No reply, cannot think of outcome; irrelevant statements.

B. **Control drinking:** outcome of controlled or social drinking, excluding abstinence.

Examples: "drink less and get it under control," "to have one beer and walk away," "to have only one or two drinks a day at the most," "be a social drinker."

C. **Abstinence:** outcome of abstaining, complete cessation of drinking indefinitely.

Examples: "stop completely," "quit once and for all," "not drink any more."

D. **Involvement in treatment program or A.A.:** without mention of drinking outcome; aim is becoming involved in treatment program or to join A.A., etc.

Examples: "get the most out of treatment," "belong to A.A.," "therapy."

E. **General personal improvement:** without mention of drinking outcome; to improve life, gain self-knowledge, discover root of problems, return to family setting, etc.

Examples: "to think positively," "get a new start," "to get to know myself better," "peace of mind," "to discover my mistakes."

F. **Miscellaneous:** not otherwise classifiable.

Motivation: Consequences of not obtaining ideal outcome: Question C85

Categories

A. **None:** no consequences, doesn't know, denies that ideal outcome will not be obtained.

B. **Relapse:** explicit or implicit reference to drinking or directly related consequences (return for treatment again, without reference to health, personal loss, or other specified consequences.

Examples: "start drinking again," "go on another drunk," "back in hospital."

C. **Physical illness or death:** reference to physical consequences, ill health, mental illness, or death.

Examples: "booze will kill me," "get sick," "complete physical failure," "ruin health," "end up in nut house," "liver disease," "end up in the grave."

D. **Loss of family, job and/or property:** reference to personal

loss of loved ones, security, finances, friends, etc. Reference to others or to environmental objects must be involved.

Examples: "lose family and everything I have," "lose house and wife," "divorce," "lose job," "my friends will desert me."

E. **Negative behavior or actions:** general behavior problems committed by patient, or direct consequences of such (e.g., arrest, jail) without explicit reference to drinking.

Examples: "end up in prison," "kill someone," "end up in trouble by hurting someone."

F. **General decline of self:** explicit or vague reference to general decline of self or person (status, etc.), without reference to health or death, personal loss or negative behavior.

Examples: "end up a bum," "go to the bottom," "total failure," "get worse and worse," "end of things," "no hope."

G. **Miscellaneous:** not otherwise classifiable.

Examples: "probably travel to Bermuda," "buy a lounge," "visit my parents."

Motivation: Definition of alcoholism: Question C86

Categories

A. **None:** unable to give definition, refusal to define, irrelevant definition.

B. **Alcoholism = disease or addiction:** reference to the central aspect as a disease, illness, sickness, addiction, hereditary defect, biochemical defect – with emphasis on *physical* (vs. psychological aspects).

Examples: "disease – inside the person," "a physical rather than psychological addiction," "disease which leads to craving for alcohol," "inherited trait," "a lack of gland elements; alcoholics lack amino acids or certain chemicals."

C. **Alcoholism = psychological dependence or habit or mental illness:** reference to central aspect as psychological (vs. physical), including definitions as a habit, dependence,

mental disease or *mental* illness; *excluding* reference to loss of control.

Examples: "mental disease," "a habit that is hard to break," "disease of the mind," "psychological dependence on alcohol."

D. Alcoholism — loss of control: emphasis on inability to control intake of alcohol; inability to stop drinking, cannot handle alcohol. Exclude disease aspect.

Examples: "gets hold of you and you lose control," "can't stop once started," "must drink each day," "always drinking," "you have to have it," "drink too much."

E. Alcoholism defined in terms of symptoms, consequences or effects of drinking: emphasis on physical or psychological symptoms or behavioral aspects of drinking (not classifiable in above categories), including general decline.

Examples: "interferes with life," "ruination," "you can't manage your life," "D.T.s," "shakes," "unclean physically," "impairs body and mind," "wrecks you."

F. Alcoholism defined as a general negative state: person makes a negative value judgment about alcoholism (exclude disease, effects, loss of control).

Examples: "a poison which will kill you," "destructive element," "deceiving state," "horrible thing," "only bums drink," "awful thing to have."

G. Miscellaneous: not otherwise classifiable.

Appendix B:
Data Entry Format Example For Computer Coding

VAR	COLUMNS	DATA	VARIABLE NAME AND QUESTION NUMBER
	01-05	_ _ _ _ _	Client ID Number
	06	1	Card Sequence
001	07	_	Sex 1 = F 2 = M
002	08-09	_ _	Age (A1)
003	10	_	Current living situation (A6)
004	11	_	Current marital status (A7)
005	12	_	Number of marriages (A8)
006	13	_	Number of children (A10)
007	14	_	Current employment status (A13)
008	15-16	_ _	Years in present job (A16)
009	17	_	Jobs in past year (A17)
010	18-19	_ _	Jobs in past five years (A17)
011	20-21	_ _	Years of military service (A18)
012	22-27	_ _ _ _ _ _	Total annual family income $(A19)
013	28	_	Socioeconomic status code (A20)
014	29-30	_ _	Highest year of education completed (A22)
015	31-32	_ _	Age at first drink (B24)
016	33-34	_ _	Age first intoxicated (B25)
017	35	_	Mother's drinking habits (B26)
018	36	_	Father's drinking habits (B26)
019	37	_	Spouse/partner drinking habits (B26)
020	38-39	_ _	Total score for male relatives (B27)
021	40-41	_ _	Total score for female relatives (B27)
022	42	_	Raised by biological parents? 1 = Y 2 = N (B27)
023	43-44	_ _	Problem Duration (Age − age at first problem) (B28)
024	45	_	Gradual or rapid etiology? 1 = G 2 = R (B29)
025	46	_	Drinking pattern 1 = P 2 = S 3 = C (B30)
026	47-49	_ _ _	Total SECs/wk, steady pattern (B31)
027	50	_	Total drinking (nonabstinent) days/wk (B31)
028	51-52	_ _	Average SECs/drinking day (026 ÷ 027) (B31)
029	53-55	_ _ _	Estimated Peak BAC for steady week (B31)
030	56-59	_ _ _ _	Q/F Index for 3 mo (026 × 13) (B32)
031	60-62	_ _ _	Hours in typical episode (B33)
032	63-66	_ _ _ _	SECs consumed in typical episode (B33)
033	67-69	_ _ _	Estimated peak BAC in typical episode (B33)
034	70-71	_ _	Number episodes in past 3 months (B33)

For coder's convenience, items to be coded are marked on the Profile with an asterisk (*)

VAR	COLUMNS	DATA	VARIABLE NAME AND QUESTION NUMBER
035	72-75	____	Q/F Index for episodes in 3 months SECs (B34)
036	76-77	__	Content coding: precipitating event (B35)
037	78-79	__	Content coding: terminating event (B36)
	01-05	_____	Subject ID Number
	06	2	Card Sequence
038	07-10	____	Q/F Index: Total past 3 months (B37)
039	11-13	___	Highest SECs in one day (B38)
040	14-16	___	Estimated BAC for 039 (B38)
041	17-19	___	Hours of longest continuous drinking (B39)
042	20-23	____	Days of longest abstinence (B40)
043	24-25	__	Content coding: reasons for stopping (B42)
044	26-27	__	Content coding: reasons for drinking (B44)
045	28-29	__	Total MAST Score (B45)
046	30-31	__	Total Ph Score (B45)
047	32	_	Total locations indicated (B46)
048	33	_	Total situations indicated (B47)
049	34-35	__	Cigarettes per day (B48)
050	36-38	___ (+ -)	Weight satisfaction (+ or − in first digit) (B49)
051	39	_	Prescription psychotropic drugs? 1 = Y 2 = N (B50)
052	40	_	Total drug classes used (B51)
053	41-42	__	Regular meals/week (B53)
054	43-44	__	% time wear seatbelt (B54)
055	45-46	__	Avg. mph in 55 zone (B54)
056	47-49	___	Days in past year drove while intoxicated (B54)
057	50	_	Most preferred beverage 1 = beer 2 = wine 3 = hard 4 = other (B56)
058	51-52	__	Total beverages used (B56)
059	53-55	___	Present weight in pounds (B58)
060	56-57	__	Present height in inches (B58)
061	58-59	__	Content coding: main reason (C66)
062	60-61	__	Content coding: intrapersonal (C67)
063	62-63	__	Content coding: interpersonal (C68)
064	64-65	__	Content coding: overall most positive (C69)
065	66-67	__	Content coding: most negative while drinking (C70)
066	68-69	__	Content coding: overall most negative (C71)
067	70-71	__	Content coding: least likely situation (C72)
068	72	_	Number of effects, Group A (C73)
069	73	_	Number of effects, Group B (C73)
070	74	_	Number of effects, Group C (C73)
071	75	_	Number of effects, Group D (C73)
072	76	_	Number of effects, Group E (C73)

VAR	COLUMNS	DATA	VARIABLE NAME AND QUESTION NUMBER
073	77	__	Most representative group 1 = A 2 = B 3 = C 4 = D 5 = E (C73)
074	78-79	__ __	Content coding: most difficulty (C74)
	01-05	__ __ __ __ __	Client ID Number
	06	3_	Card Sequence
075	07-08	__ __	Total problems indicated (C75)
076	09	__	Content coding: self-directed attempts (C76)
077	10	__	Content coding: external help (C77)
078	11	__	Advised to stop? 1 = Y 2 = N (C78)
079	12	__	Advised to cut down? 1 = Y 2 = N (C79)
080	13	__	Content coding: reasons for seeking help now (C80)
081	14	__	Goal statement chosen (C82)
082	15-16	__ __	Ideal SECs per week (C83)
083	17-19	__ __ __	% chance of achieving goal (C84)
084	20	__	Content coding: failure outcome (C85)
085	21	__	Disease or bad habit? 1 = D 2 = BH (C87)
086	22	__	Self-rating (C88)
087	23	__	Spouse's rating (C88)
088	24	__	Friend's rating (C88)
089	25	__	Rating by most (C88)
090	26	__	Comparison of ratings (C88)

This is intended only as an example of a possible coding format. Variables may be added or deleted to meet specific data needs.

Appendix C:
Sample Data for the Comprehensive Drinker Profile

This appendix presents data on selected variables from the CDP. These data were derived from CDP interviews with 103 consecutive adult outpatients (34 women, 69 men) admitted for treatment at the Alcohol Research and Treatment Project of the University of New Mexico. These data are presented for comparative purposes, but should not be considered normative for other populations. Samples from other settings (inpatient, detoxification, etc.) and other locations will vary substantially. Some of the patients in the present sample were admitted to therapeutic programs with a goal of controlled drinking, others to abstinence-oriented approaches.

Many variables derived from the CDP consist of ordinal or interval data, and can be analyzed for central tendency. For these measures, which are presented first, means, standard deviation, and range for total sample are provided, as well as subsample means for females and males. Other variables are simply nominal classifications. For these, frequency distributions are presented on selected measures.

VARIABLE[a]	Mean	S.D.	Range	Females	Males
002 Age	40.0	12.1	21-67	40.8	39.6
012 Annual Income	$24,216	$15,598	0-$60,000	$21,381	$25,632
014 Education	15.0	2.3	11-22	15.2	14.9
015 Age First Drink	15.0	3.5	2-21	15.7	14.5
016 Age First Intox.	17.1	3.5	11-35	18.7	16.3
020 Male Family Hx	4.5	5.1	0-27	5.2	4.2
021 Female Family Hx	1.3	2.5	0-15	2.2	0.9
023 Problem Duration	10.3	10.8	1-43	9.4	10.7
026 SECs/wk, Steady	44.9	32.7	0-153	39.6	47.4
027 Drinking Days/wk	5.5	2.2	0-7	5.9	5.3
028 SECs/day	7.7	5.0	0-22	6.1	8.5
029 Peak BAC, Steady[b]	178.6	131.3	0-500	166.2	184.7
030 Q/F Index, Steady	590.9	472.7	0-2678	514.1	628.6
031 Hours in Episode	14.1	70.3	0-672	3.5	19.4
032 SECs/episode	20.0	80.0	0-754	5.4	27.3
033 Peak BAC/episode[b]	135.0	182.8	0-500	142.8	131.1
034 No. Episodes/3 mo.	1.6	2.4	0-12	1.5	1.7

VARIABLE[a]	Mean	S.D.	Range	Females	Males
035 Q/F Episodes	45.0	116.9	0-830	17.5	58.8
038 Q/F Total 3 mo.	619.3	491.2	20-2678	530.5	663.7
039 Highest SECs/day	24.7	13.1	7-58	20.2	26.9
040 Highest BAC/day[b]	377.5	208.8	69-500	417.8	357.0
041 Hrs. Longest Epis.	70.9	153.8	4-999	28.4	92.2
042 Days Longest Abst.	185.2	516.9	0-3650	69.3	244.1
045 MAST Score	21.0	9.4	4-47	17.2	22.9
046 Ph Score	6.8	3.3	1-17	6.6	6.9
047 Total Locations	7.1	1.3	3-9	6.8	7.3
048 Total Situations	5.5	1.5	2-8	5.1	5.7
049 Cigarettes/day	12.8	16.6	0-80	11.9	13.2
050 Weight Satisfaction	5.6	12.6	-25-+50	8.8	4.1
053 Regular meals/wk	16.2	3.4	7-21	15.3	16.5
054 % Seatbelt	27.9	40.1	0-99	22.0	29.5
055 Average MPH	62.0	6.6	45-80	60.4	62.5
056 Days DWI/yr	101.8	121.1	0-365	50.9	115.9
058 Total Beverages	8.6	4.9	1-18	10.8	7.5
059 Weight in lb.	159.1	13.2	108-270	136.1	170.6
060 Height in in.	68.6	3.7	58-78	65.2	69.7
068 Effects A	3.7	1.3	0-5	3.8	3.7
069 Effects B	2.9	1.9	0-5	3.5	2.6
070 Effects C	2.3	1.7	0-5	2.5	2.2
071 Effects D	3.1	1.3	0-5	2.8	3.3
072 Effects E	2.0	1.8	0-5	2.6	1.6
075 Total Problems	7.9	2.6	2-14	8.2	7.7
082 Ideal SECs/wk	6.8	10.0	0-48	8.1	6.2
083 % Chance of goal	72.8	26.8	0-100	74.8	71.7

[a]Variable numbers refer to format in Appendix B

[b]Estimated BAC was found to exceed 500 mg% in some cases. An arbitrary ceiling value of 500 was used for such values, since doses exceeding this are known to be lethal and thus improbable.

FREQUENCY DISTRIBUTIONS

Variable	Response	%
003 Living Situation	1. alone	19.2
	2. with spouse/partner	58.6
	3. with roommate(s)	17.2
	4. with children only	5.1
004 Marital Status	1. never married	22.2
	2. married, living with	53.5
	3. married, separated	4.0
	4. widowed	2.0
	5. divorced	18.2
007 Employment Status	1. full time	60.2
	2. part time	13.3
	3. retired	9.2
	4. unemployed	10.2
	5. homemaker	7.1
017 Mother Status	0. don't know	4.3
	1. abstainer	38.3
	2. light nonproblem	38.3
	3. moderate nonproblem	8.5
	4. heavy nonproblem	5.3
	5. problem drinker	4.3
	6. alcoholic	1.1
018 Father Status	0. don't know	3.2
	1. abstainer	16.0
	2. light nonproblem	21.3
	3. moderate nonproblem	16.0
	4. heavy nonproblem	12.8
	5. problem drinker	10.6
	6. alcoholic	20.2
019 Spouse Status	1. abstainer	15.4
	2. light nonproblem	41.0
	3. moderate nonproblem	19.2
	4. heavy nonproblem	7.7
	5. problem drinker	9.0
	6. alcoholic	7.7
024 Gradual vs. Rapid	1. gradual onset	83.9
	2. rapid onset	16.1
025 Drinking pattern	1. periodic only	7.5
	2. steady only	48.9
	3. combination pattern	43.6

Variable	Response	%
057 Most preferred beverage	1. beer	47.8
	2. wine	12.2
	3. hard liquor	38.9
	4. other	1.1
073 Most representative group	1. Group A "calm"	55.1
	2. Group B "angry"	18.0
	3. Group C "afraid"	9.0
	4. Group D "friendly"	15.7
	5. Group E "inferior"	2.2
078 Advised to stop	1. yes	58.9
	2. no	41.1
079 Advised to cut down	1. yes	78.9
	2. no	21.1
081 Goal	1. abstinence only	22.2
	2. abstinence maybe	34.4
	3. light social	15.6
	4. moderate social	25.6
	5. heavy social	0.0
	6. no need to change	2.2
085 Concept of alcoholism	1. disease	62.2
	2. bad habit	37.8

Drinker Descriptions	086 Self	087 Spouse	088 Friend	089 Most
1 Abstainer	0.0%	0.0%	1.1%	2.2%
2 Light nonproblem	1.1%	5.8%	5.6%	15.6%
3 Moderate nonproblem	5.6%	8.7%	30.0%	41.1%
4 Heavy nonproblem	12.2%	17.4%	38.9%	23.3%
5 Problem drinker	64.4%	42.0%	22.2%	15.6%
6 Alcoholic	16.7%	26.1%	2.2%	2.2%

090 Comparison of Ratings	
1. self-description higher than "most"	65.8
2. self-description same as "most"	27.8
3. self-description lower than "most"	6.3

For further detail regarding the meaning of variable numbers and names, consult Appendix B for question number, then refer to specific items in the CDP from which data are derived.

Appendix D:
BAC Tables

TABLE D-1

Approximate Blood Alcohol Concentration (mg%) Reached *After One Hour* of Drinking, According to Body Weight and Number of Drinks Consumed

FOR MEN

Number of Drinks	Body Weight							
	100	120	140	160	180	200	220	240
1	021	015	010	007	004	002	001	000
2	058	046	036	030	024	020	018	014
3	095	077	062	053	044	038	035	029
4	132	108	088	076	064	056	052	044
5	169	139	114	099	084	074	069	059
6	206	170	140	122	104	092	086	074
7	243	201	166	145	124	110	103	089
8	280	232	192	168	144	128	120	104
9	317	263	218	191	164	146	137	119
10	354	294	244	214	184	164	154	134
11	391	325	270	237	204	182	171	149
12	428	356	296	260	224	200	188	164

FOR WOMEN

Number of Drinks	Body Weight							
	100	120	140	160	180	200	220	240
1	029	021	016	012	009	006	004	002
2	074	058	048	040	034	028	024	020
3	119	095	080	068	059	050	044	038
4	164	132	112	096	084	072	064	056
5	209	169	144	124	109	094	084	074
6	253	206	176	152	134	116	104	092
7	299	243	208	180	159	138	124	110
8	344	280	240	208	184	160	144	128
9	389	317	272	236	209	182	164	146
10	434	354	304	264	234	204	184	164
11	479	391	336	292	259	226	204	182
12	524	428	368	320	284	248	224	200

NOTE: Gray area indicates BAC level over which a person is legally intoxicated in some states (80 mg%). From *How to Control Your Drinking*, Rev. ed., by William R. Miller, Ph.D. and Ricardo S. Muñoz, Ph.D., ©1982, UNM Press. Reprinted by permission.

TABLE D-2

Approximate Blood Alcohol Concentration (mg%) Reached *After Two Hours* of Drinking, According to Body Weight and Number of Drinks Consumed

FOR MEN

Number of Drinks	Body Weight							
	100	120	140	160	180	200	220	240
1	005	000	000	000	000	000	000	000
2	042	030	020	014	008	004	002	000
3	079	061	046	037	028	022	019	013
4	116	092	072	060	048	040	036	028
5	153	123	098	083	068	058	053	043
6	190	154	114	106	088	076	070	058
7	227	185	150	129	108	094	087	073
8	264	216	176	152	128	112	104	088
9	301	247	202	175	148	130	121	103
10	338	278	228	198	168	148	138	118
11	375	309	254	221	188	166	155	133
12	412	340	280	244	208	184	172	148

FOR WOMEN

Number of Drinks	Body Weight							
	100	120	140	160	180	200	220	240
1	013	005	000	000	000	000	000	000
2	058	042	032	024	018	012	008	004
3	103	079	064	052	043	034	028	022
4	148	116	096	080	068	056	048	040
5	193	153	128	108	093	078	068	058
6	238	190	160	136	118	100	088	076
7	283	227	192	164	143	122	108	094
8	328	264	224	192	168	144	128	112
9	373	301	256	220	193	166	148	130
10	418	338	288	248	218	188	168	148
11	463	375	320	276	243	210	188	166
12	508	412	352	304	268	232	208	184

NOTE: Gray area indicates BAC level over which a person is legally intoxicated in some states (80 mg%). From *How to Control Your Drinking*, Rev. ed., by William R. Miller, Ph.D. and Ricardo S. Muñoz, Ph.D. ©1982, UNM Press. Reprinted by permission.

TABLE D-3

Approximate Blood Alcohol Concentration (mg%) Reached *After Three Hours* of Drinking, According to Body Weight and Number of Drinks Consumed

FOR MEN

Number of Drinks	Body Weight							
	100	120	140	160	180	200	220	240
2	026	014	004	000	000	000	000	000
3	063	045	030	021	012	006	003	000
4	100	076	056	044	032	024	020	012
5	137	107	082	067	052	042	037	027
6	174	138	108	090	072	060	054	042
7	211	169	134	113	092	078	071	057
8	248	200	160	136	112	096	088	072
9	285	231	186	159	132	114	105	087
10	322	262	212	182	152	132	122	102
11	359	293	238	205	172	150	139	117
12	396	324	264	228	192	168	156	132
13	433	355	290	251	212	186	173	147
14	470	386	316	274	232	204	190	162

FOR WOMEN

Number of Drinks	Body Weight							
	100	120	140	160	180	200	220	240
2	042	026	016	008	002	000	000	000
3	087	063	048	036	027	018	012	006
4	132	100	080	064	052	040	032	024
5	177	137	112	092	077	062	052	042
6	222	174	144	120	102	084	072	060
7	267	211	176	148	127	106	092	078
8	312	248	208	176	152	128	112	096
9	357	285	240	204	177	150	132	114
10	402	322	272	232	202	172	152	132
11	447	359	304	260	227	194	172	150
12	492	396	336	288	252	216	192	168
13	537	433	368	316	277	238	212	186
14	582	470	400	344	302	260	232	204

NOTE: Gray area indicates BAC level over which a person is legally intoxicated in some states (80 mg%). From *How to Control Your Drinking*, Rev. ed., by William R. Miller, Ph.D. and Ricardo S. Muñoz, Ph.D., ©1982, UNM Press. Reprinted by permission.

TABLE D-4

Approximate Blood Alcohol Concentration (mg%) Reached *After Four Hours* of Drinking, According to Body Weight and Number of Drinks Consumed

FOR MEN

Number of Drinks	Body Weight							
	100	120	140	160	180	200	220	240
2	010	000	000	000	000	000	000	000
3	047	029	014	005	000	000	000	000
4	084	060	040	028	016	008	004	000
5	121	091	066	051	036	026	021	011
6	158	122	092	074	056	044	038	026
7	195	153	118	097	076	062	055	041
8	232	184	144	120	096	080	072	056
9	269	215	170	143	116	098	089	071
10	306	246	196	166	136	116	106	086
11	343	277	222	189	156	134	123	101
12	380	308	248	212	176	152	140	116
13	417	339	274	235	196	170	157	131
14	454	370	300	258	216	188	174	146
15	491	401	326	281	236	206	191	161
16	528	432	352	304	256	224	241	176

FOR WOMEN

Number of Drinks	Body Weight							
	100	120	140	160	180	200	220	240
2	026	010	000	000	000	000	000	000
3	071	047	032	020	011	002	000	000
4	116	084	064	048	036	024	016	008
5	161	121	096	076	061	046	036	026
6	206	158	128	104	086	068	056	044
7	251	195	160	132	111	090	076	062
8	296	232	192	160	136	112	096	080
9	341	269	224	188	161	134	116	098
10	386	306	256	216	186	156	136	116
11	431	343	288	244	211	178	156	134
12	476	380	320	272	236	200	176	152
13	521	417	352	300	261	222	196	170
14	566	454	384	328	286	244	216	188
15	611	491	416	356	311	266	236	206
16	656	528	448	384	336	288	256	224

NOTE: Gray area indicates BAC level over which a person is legally intoxicated in some states (80 mg%). From *How to Control Your Drinking*, Rev. ed., by William R. Miller, Ph.D. and Ricardo S. Muñoz, Ph.D., ©1982, UNM Press. Reprinted by permission.