## Comparison of Substance Abuse Screening Tests

<table>
<thead>
<tr>
<th>TEST</th>
<th>sensitivity</th>
<th>specificity</th>
<th>format</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% of true cases identified</td>
<td>% without condition who test negative</td>
<td>Alcohol Use Disorders Identification Test</td>
</tr>
<tr>
<td>AUDIT</td>
<td></td>
<td></td>
<td>10 questions</td>
</tr>
<tr>
<td>Score 12</td>
<td>28</td>
<td>97</td>
<td>Self-administrated or interview</td>
</tr>
<tr>
<td>Score 8</td>
<td>61</td>
<td>90</td>
<td>To identify harmful use</td>
</tr>
<tr>
<td>Score 2</td>
<td>97</td>
<td>25</td>
<td>Cross-cultural validity</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Developed by World Health Organization</td>
</tr>
<tr>
<td>AUDIT - C</td>
<td></td>
<td></td>
<td>Consumption questions from AUDIT 10 questions</td>
</tr>
<tr>
<td>Score 3 or more</td>
<td>100</td>
<td>80</td>
<td>Self-administrated or interview</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>To identify harmful use</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cross-cultural validity</td>
</tr>
<tr>
<td>AUDIT - PC</td>
<td></td>
<td></td>
<td>for Primary Care settings 10 questions</td>
</tr>
<tr>
<td>Score 5 or more</td>
<td>98</td>
<td>90</td>
<td>Self-administrated or interview</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Identifies harmful use</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cross-cultural validity</td>
</tr>
<tr>
<td>Brief MAST</td>
<td></td>
<td></td>
<td>Derived from MAST 10 questions</td>
</tr>
<tr>
<td>Score of 6 or more</td>
<td>60</td>
<td>90</td>
<td>Self-administered or interview</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>To detect alcoholism</td>
</tr>
<tr>
<td>CAGE</td>
<td></td>
<td></td>
<td>Acronym for questions 4 questions</td>
</tr>
<tr>
<td>All items positive</td>
<td>37</td>
<td>100</td>
<td>Clinical interview</td>
</tr>
<tr>
<td>3 positive</td>
<td>66</td>
<td>99</td>
<td>To detect alcoholism</td>
</tr>
<tr>
<td>2 positive items</td>
<td>81</td>
<td>89</td>
<td>No cutoff score to differentiate dependence from abuse</td>
</tr>
</tbody>
</table>
| **CRAFFT** | 76 | 94 | Acronym for questions  
6 questions  
Clinical interview  
Designed for adolescents  
To identify high risk use warranting further evaluation |
|---|---|---|---|
| **DAST** | 79 | 96 | Drug Abuse Screening Test  
28 questions  
Self-administrated or interview  
To detect drug problems |
| **Fagerstrom Nicotine Dependence Test** | 68 | 81 | 5 questions  
Clinical interview  
To assess level of nicotine dependence |
| **MAST** | 98 | 95 | Michigan Alcoholism Screening Test  
25 questions  
Self-administered or interview  
To detect alcoholism |
| **MAST - G** | 86 | 47 | Michigan Alcoholism Screening Test - Geriatric version  
24 questions  
Self-administered or interview  
To detect alcoholism |
| **Short MAST** | 83 | 87 | Derived from Michigan Alcoholism Screening Test  
13 questions  
Self-administrated or interview  
To detect alcoholism |
<table>
<thead>
<tr>
<th>Test</th>
<th>Sensitivity</th>
<th>Specificity</th>
<th>Format</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Short MAST - G</strong></td>
<td>75</td>
<td>69</td>
<td>Short form of <strong>Geriatric version Michigan Alcoholism Screening Test</strong></td>
</tr>
<tr>
<td>Score 2 or more</td>
<td></td>
<td></td>
<td>10 questions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Self-administrated or interview</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>To assess harmful use</td>
</tr>
<tr>
<td><strong>TWEAK</strong></td>
<td>70</td>
<td>73</td>
<td>Acronym for questions</td>
</tr>
<tr>
<td>Score of 2 (high risk)</td>
<td></td>
<td></td>
<td>5 questions</td>
</tr>
<tr>
<td>Score of 1 (moderate risk)</td>
<td>66</td>
<td>64</td>
<td>Clinical interview</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pregnant women</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>To detect high risk use</td>
</tr>
<tr>
<td><strong>T-ACE</strong></td>
<td>67</td>
<td>86</td>
<td>Acronym for questions</td>
</tr>
<tr>
<td>Score of 2 or more</td>
<td></td>
<td></td>
<td>4 questions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Clinical interview</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pregnant women</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>To detect high risk use</td>
</tr>
<tr>
<td><strong>Trauma Scale</strong></td>
<td>68</td>
<td>81</td>
<td>5 questions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Clinical interview</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>To detect alcohol problems, not alcoholism</td>
</tr>
</tbody>
</table>
Instructions: For each question, place a checkmark on the line next to the best answer.

1. How often do you have a drink containing alcohol?
   - Never ____________
   - Monthly or less ____________
   - Two to four times a month ____________
   - Two to three times a week ____________
   - Four or more times a week ____________

2. How many drinks containing alcohol do you have on a typical day when you are drinking?
   - 1 or 2 ____________
   - 3 or 4 ____________
   - 5 or 6 ____________
   - 7 to 9 ____________
   - 10 or more ____________

3. How often do you have six or more drinks on one occasion?
   - Never ____________
   - Less than monthly ____________
   - Monthly ____________
   - Weekly ____________
   - Daily or almost daily ____________

4. How often during the last year have you found that you were not able to stop drinking once you had started?
   - Never ____________
   - Less than monthly ____________
   - Monthly ____________
   - Weekly ____________
   - Daily or almost daily ____________

5. How often during the last year have you failed to do what was normally expected from you because of drinking?
   - Never ____________
   - Less than monthly ____________
   - Monthly ____________
   - Weekly ____________
   - Daily or almost daily ____________

6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?
   - Never ____________
   - Less than monthly ____________
   - Monthly ____________
   - Weekly ____________
   - Daily or almost daily ____________

7. How often during the last year have you had a feeling of guilt or remorse after drinking?
   - Never ____________
   - Less than monthly ____________
   - Monthly ____________
   - Weekly ____________
   - Daily or almost daily ____________

8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?
   - Never ____________
   - Less than monthly ____________
   - Monthly ____________
   - Weekly ____________
   - Daily or almost daily ____________

9. Have you or someone else been injured as a result of your drinking?
   - No ____________
   - Yes, but not in the last year ____________
   - Yes, during the last year ____________

10. Has a relative or friend, or a doctor or other health worker been concerned about your drinking, or suggested you cut down?
    - No ____________
    - Yes, but not in the last year ____________
    - Yes, during the last year ____________
**AUDIT—C**

**Instructions:** Place a checkmark on the response that is most applicable.

1. How often do you have a drink containing alcohol?
   - Never
   - Monthly or less
   - 2 - 4 times a month
   - 2 - 3 times a week
   - 4 or more times a week

2. How many drinks containing alcohol do you have on a typical day when you are drinking?
   - 1 or 2 drinks
   - 3 or 4 drinks
   - 5 or 6 drinks,
   - 7 to 9 drinks
   - 10 or more

3. How often do you have six or more drinks on one occasion?
   - Never
   - Monthly or less
   - 2 - 4 times a month
   - 2 - 3 times a week
   - 4 or more times a week
Instructions: Place a checkmark on the line that is most applicable.

1. How often do you have a drink containing alcohol?
   - Never
   - Monthly or less
   - Two to four times a month
   - Two to three times a week
   - Four or more times a week

2. How many drinks containing alcohol do you have on a typical day when you are drinking?
   - 1 or 2
   - 3 or 4
   - 5 or 6
   - 7 to 9
   - 10 or more

3. How often during the last year have you found that you were not able to stop drinking once you had started?
   - Never
   - Less than monthly
   - Monthly
   - Weekly
   - Daily or almost daily

4. How often during the last year have you failed to do what was normally expected from you because of drinking?
   - Never
   - Less than monthly
   - Monthly
   - Weekly
   - Daily or almost daily

5. Has a relative or friend, or a doctor or other health worker been concerned about your drinking, or suggested you cut down?
   - No
   - Yes, but not in the last year
   - Yes, during the last year
Appendix A
The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST v3.1)

Clinician Name

Clinic

Client ID or Name

Date

Introduction (please read to client or adapt for local circumstances)*

The following questions ask about your experience of using alcohol, tobacco products and other drugs across your lifetime and in the past three months. These substances can be smoked, swallowed, snorted, inhaled or injected (show response card).

Some of the substances listed may be prescribed by a doctor (like amphetamines, sedatives, pain medications). For this interview, we will not record medications that are used as prescribed by your doctor. However, if you have taken such medications for reasons other than prescription, or taken them more frequently or at higher doses than prescribed, please let me know.

While we are also interested in knowing about your use of various illicit drugs, please be assured that information on such use will be treated as strictly confidential.

Before asking questions, give ASSIST response card to client

<table>
<thead>
<tr>
<th>QUESTION 1</th>
<th>In your life, which of the following substances have you ever used (non-medical use only)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Tobacco products (cigarettes, chewing tobacco, cigar, etc.)</td>
<td>No</td>
</tr>
<tr>
<td>b. Alcohol beverages (beer, wine, spirits, etc.)</td>
<td>No</td>
</tr>
<tr>
<td>c. Cannabis (marijuana, pot, grass, hemp, etc.)</td>
<td>No</td>
</tr>
<tr>
<td>d. Cocaine (coke, crack, etc.)</td>
<td>No</td>
</tr>
<tr>
<td>e. Amphetamine-type stimulants (speed, meth, ecstasy, etc.)</td>
<td>No</td>
</tr>
<tr>
<td>f. Inhalants (nitrous, glue, petrol, paint thinner, etc.)</td>
<td>No</td>
</tr>
<tr>
<td>g. Sedatives or sleeping pills (diazepam, alprazolam, flunitrazepam, midozolam, etc.)</td>
<td>No</td>
</tr>
<tr>
<td>h. Hallucinogens (LSD, acid, mushrooms, lops, ketamine, etc.)</td>
<td>No</td>
</tr>
<tr>
<td>i. Opioids (heroin, morphine, methadone, buprenorphine, codeine, etc.)</td>
<td>No</td>
</tr>
<tr>
<td>Other - specify</td>
<td>No</td>
</tr>
</tbody>
</table>

Note: If all answers are negative, *No* to all items, stop interview. *Yes* to any of these items, ask Q2 for each substance ever used.

* ASSIST V3.1 is to be utilized by for screening in clinical settings. For research purposes please use the previous version ASSIST V3.0.
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## QUESTION 2

In the past three months, how often have you used the substances you mentioned (first drug, second drug, etc.)?

<table>
<thead>
<tr>
<th>Substance</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Tobacco products (cigarettes, chewing tobacco, cigars, etc.)</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>b. Alcoholic beverages (beer, wine, spirits, etc.)</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>c. Cannabis (marijuana, pot, grass, hash, etc.)</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>d. Cocaine (coke, crack, etc.)</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>e. Amphetamine-type stimulants (speed, meth, ecstasy, etc.)</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>f. Inhalants (nitrous, glue, petrol, paint thinner, etc.)</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>g. Sedatives or sleeping pills (diazepam, alprazolam, flunitrazepam, midazolam, etc.)</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>h. Hallucinogens (LSD, acid, mushrooms, trips, ketamine, etc.)</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>i. Opioids (heroin, morphine, methadone, buprenorphine, codeine, etc.)</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>j. Other - specify:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If "Never" to all items in Q2, go to Q3.

If any substances in Q2 were used in the previous three months, continue with Questions 2, 4 & 5 for each substance used.

## QUESTION 3

During the past three months, how often have you had a strong desire or urge to use (first drug, second drug, etc.)?

<table>
<thead>
<tr>
<th>Substance</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Tobacco products (cigarettes, chewing tobacco, cigars, etc.)</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>b. Alcoholic beverages (beer, wine, spirits, etc.)</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>c. Cannabis (marijuana, pot, grass, hash, etc.)</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>d. Cocaine (coke, crack, etc.)</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>e. Amphetamine-type stimulants (speed, meth, ecstasy, etc.)</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>f. Inhalants (nitrous, glue, petrol, paint thinner, etc.)</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>g. Sedatives or sleeping pills (diazepam, alprazolam, flunitrazepam, midazolam, etc.)</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>h. Hallucinogens (LSD, acid, mushrooms, trips, ketamine, etc.)</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>i. Opioids (heroin, morphine, methadone, buprenorphine, codeine, etc.)</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>j. Other - specify:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### QUESTION 4 | During the past three months, how often has your use of (first drug, second drug, etc.) led to health, social, legal or financial problems?

<table>
<thead>
<tr>
<th>Substance</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Tobacco products (cigarettes, chewing tobacco, pipes, etc.)</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Alcoholic beverages (beer, wine, spirits, etc.)</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Cannabis (marijuana, pot, grass, hash, etc.)</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Cocaine (coke, crack, etc.)</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Amphetamine-type stimulants (speed, meth, ecstasy, etc.)</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Inhalants (nitrous, glue, petrol, paint thinner, etc.)</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Sedatives or sleeping pills (diazepam, alprazolam, flurazepam, midazolam, etc.)</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Hallucinogens (LSD, acid, mushrooms, trip, ketamine, etc.)</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Opioids (heroin, morphine, methadone, buprenorphine, codeine, etc.)</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j. Other – specify</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### QUESTION 5 | During the past three months, how often have you failed to do what was normally expected of you because of your use of (first drug, second drug, etc.)?

<table>
<thead>
<tr>
<th>Substance</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Tobacco products</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Alcoholic beverages (beer, wine, spirits, etc.)</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Cannabis (marijuana, pot, grass, hash, etc.)</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Cocaine (coke, crack, etc.)</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Amphetamine-type stimulants (speed, meth, ecstasy, etc.)</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Inhalants (nitrous, glue, petrol, paint thinner, etc.)</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Sedatives or sleeping pills (diazepam, alprazolam, flurazepam, midazolam, etc.)</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Hallucinogens (LSD, acid, mushrooms, trip, ketamine, etc.)</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Opioids (heroin, morphine, methadone, buprenorphine, codeine, etc.)</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j. Other – specify</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Ask questions 6 & 7 for all substances ever used (i.e. those endorsed in Q1)
### QUESTION 6

Has a friend or relative or anyone else ever expressed concern about your use of (first drug, second drug, etc.)?

<table>
<thead>
<tr>
<th>Substance</th>
<th>Yes (0)</th>
<th>No (6)</th>
<th>Other (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Tobacco products (cigarettes, chewing tobacco, cigars, etc.)</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>b. Alcoholic beverages (beer, wine, spirits, etc.)</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>c. Cannabis (marijuana, pot, grass, hash, etc.)</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>d. Cocaine (coke, crack, etc.)</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>e. Amphetamine-type stimulants (speed, meth, ecstasy, etc.)</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>f. Inhalants (nitrous, glue, petrol, paint thinner, etc.)</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>g. Sedatives or sleeping pills (clorazepant, alprazolam, flurazepam, midazolam, etc.)</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>h. Hallucinogens (LSD, acid, mushrooms, trips, ketamine, etc.)</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>i. Opioids (heroin, morphine, methadone, buprenorphine, codeine, etc.)</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>j. Other, specify: ________________________________</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>

Ask questions 6 & 7 for all substances ever used (i.e. those endorsed in Q6).

### QUESTION 7

Have you ever tried to cut down on using (first drug, second drug, etc.) but failed?

<table>
<thead>
<tr>
<th>Substance</th>
<th>Yes (0)</th>
<th>No (6)</th>
<th>Other (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Tobacco products (cigarettes, chewing tobacco, cigars, etc.)</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>b. Alcoholic beverages (beer, wine, spirits, etc.)</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>c. Cannabis (marijuana, pot, grass, hash, etc.)</td>
<td>0</td>
<td>6</td>
<td>3</td>
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<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>e. Amphetamine-type stimulants (speed, meth, ecstasy, etc.)</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>f. Inhalants (nitrous, glue, petrol, paint thinner, etc.)</td>
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<td>6</td>
<td>3</td>
</tr>
<tr>
<td>g. Sedatives or sleeping pills (clorazepant, alprazolam, flurazepam, midazolam, etc.)</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>h. Hallucinogens (LSD, acid, mushrooms, trips, ketamine, etc.)</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>i. Opioids (heroin, morphine, methadone, buprenorphine, codeine, etc.)</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>j. Other, specify: ________________________________</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>

Ask questions 6 & 7 for all substances ever used (i.e. those endorsed in Q6).
QUESTION 8 | Have you ever used any drug by injection (non-medical use only)?

(Please tick the appropriate box)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

IMPORTANT NOTE

Clients who have injected drugs in the last 3 months should be asked about their pattern of injecting during this period, to determine their risk levels and the best course of intervention.

Pattern of injecting

| 4 days per month, on average, over the last 3 months or less
| More than 4 days per month, on average, over the last 3 months

Intervention guidelines

| Brief intervention including the risks of injecting card
| Further assessment and more intensive treatment

How to calculate a specific substance involvement score.

For each substance (labelled 'a' to 'j') add up the scores received for questions 2 through 7 inclusive. Do not include the results from either Q1 or Q8 in this score. For example, a score for cannabis would be calculated as: Q2c + Q3c + Q4c + Q5c + Q6c + Q7c.
Note that Q5 for tobacco is not coded, and is calculated as: Q2a + Q3a + Q4a + Q6a + Q7a.

<table>
<thead>
<tr>
<th>Substance</th>
<th>Score</th>
<th>No intervention</th>
<th>Brief intervention</th>
<th>Intensive treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Tobacco</td>
<td>0-2</td>
<td>0 - 26</td>
<td>27+</td>
<td></td>
</tr>
<tr>
<td>b. Alcohol</td>
<td>0-10</td>
<td>11 - 26</td>
<td>27+</td>
<td></td>
</tr>
<tr>
<td>c. Cannabis</td>
<td>0-3</td>
<td>4 - 26</td>
<td>27+</td>
<td></td>
</tr>
<tr>
<td>d. Cocaine</td>
<td>0-3</td>
<td>4 - 26</td>
<td>27+</td>
<td></td>
</tr>
<tr>
<td>e. ATS</td>
<td>0-3</td>
<td>4 - 26</td>
<td>27+</td>
<td></td>
</tr>
<tr>
<td>f. Inhalants</td>
<td>0-3</td>
<td>4 - 26</td>
<td>27+</td>
<td></td>
</tr>
<tr>
<td>g. Sedatives</td>
<td>0-3</td>
<td>4 - 26</td>
<td>27+</td>
<td></td>
</tr>
<tr>
<td>h. Hallucinogens</td>
<td>0-3</td>
<td>4 - 26</td>
<td>27+</td>
<td></td>
</tr>
<tr>
<td>i. Opioids</td>
<td>0-3</td>
<td>4 - 26</td>
<td>27+</td>
<td></td>
</tr>
<tr>
<td>j. Other drugs</td>
<td>0-3</td>
<td>4 - 26</td>
<td>27+</td>
<td></td>
</tr>
</tbody>
</table>

Now use ASSIST feedback report card to give client brief intervention.
Instructions: Circle either yes or no to the right of the question to indicate your answer.

1. Have you used drugs other than those required for medical reasons? Yes  No
2. Have you abused prescription drugs? Yes  No
3. Do you abuse more than one drug at a time? Yes  No
4. Can you get through the week without using drugs (other than those required for medical reasons)? Yes  No
5. Are you always able to stop using drugs when you want to? Yes  No
6. Do you abuse drugs on a continuous basis? Yes  No
7. Do you try to limit your drug use to certain situations? Yes  No
8. Have you had "blackouts" or "flashbacks" as a result of drug use? Yes  No
9. Do you ever feel bad about your drug abuse? Yes  No
10. Does your spouse (or parents) ever complain about your involvement with drugs? Yes  No
11. Do your friends or relatives know or suspect you abuse drugs? Yes  No
12. Has drug abuse ever created problems between you and your spouse? Yes  No
13. Has any family member ever sought help for problems related to your drug use? Yes  No
14. Have you ever lost friends because of your use of drugs? Yes  No
15. Have you ever neglected your family or missed work because of your use of drugs? Yes  No
16. Have you ever been in trouble at work because of drug abuse? Yes  No
17. Have you ever lost a job because of drug abuse? Yes  No
18. Have you gotten into fights when under the influence of drugs? Yes  No
19. Have you ever been arrested because of unusual behavior while under the influence of drugs? Yes  No
20. Have you ever been arrested for driving while under the influence of drugs? Yes  No
21. Have you engaged in illegal activities to obtain drugs? Yes  No
22. Have you ever been arrested for possession of illegal drugs? Yes  No
23. Have you ever experienced withdrawal symptoms as a result of heavy drug intake? Yes  No
24. Have you had medical problems as a result of your drug use (e.g., memory loss, hepatitis, convulsions, or bleeding)? Yes  No
25. Have you ever gone to anyone for help for a drug problem? Yes  No
26. Have you ever been in hospital for medical problems related to your drug use? Yes  No
27. Have you ever been involved in a treatment program specifically related to drug use? Yes  No
28. Have you been treated as an outpatient for problems related to drug abuse? Yes  No
Name: ____________________  
Date: ____________________  

**CAGE**

**Instructions:** Place an X on the line indicating the right answer.

1. Have you ever felt you should cut out on your drinking?     Yes  No

2. Have people annoyed you by criticizing your drinking?     No  Yes

3. Have you ever felt bad or guilty about your drinking?     No  Yes

4. Have you had an eye-opener first thing in the morning to steady your nerves or get rid of a hangover?     No  Yes

E
CRAFFT

Instructions: Place an X on the line to indicate your response.

1. Have you ever ridden in a car driven by someone (including yourself) who was high or had been using alcohol or drugs? __ __
2. Do you ever use alcohol or drugs to relax, feel better about yourself, or fit in? __ __
3. Do you ever use alcohol or drugs while you are by yourself alone? __ __
4. Do you ever forget things you did while using alcohol or drugs? __ __
5. Do your family or friends ever tell you that you should cut down on your drinking or drug use? __ __
6. Have you ever gotten into trouble while you were using alcohol or drugs? __ __
Fagerstrom Test for Nicotine Dependence

Instructions: Select the number of the answer that is most applicable, and write it on the line to the left.

1. How soon after you awake do you smoke your first cigarette?
   0. After 30 minutes
   1. Within 30 minutes

2. Do you find it difficult to refrain from smoking in places where it is forbidden, such as the library, theater, or doctors’ office?
   0. No
   1. Yes

3. Which of all the cigarettes you smoke in a day is the most satisfying?
   0. Any other than the first in the morning
   1. The first one in the morning

4. How many cigarettes a day do you smoke?
   0. 1–15
   1. 16–25
   2. More than 26

5. Do you smoke more during the morning than during the rest of the day?
   0. No
   1. Yes

6. Do you smoke when you are so ill that you are in bed most of the day?
   0. No
   1. Yes

7. Does the brand you smoke have a low, medium, or high nicotine content?
   0. Low
   1. Medium
   2. High

8. How often do you inhale the smoke from your cigarette?
   0. Never
   1. Sometimes
   2. Always
**Instructions:** Place an X on the line to indicate your response.

1. Do you feel you are a normal drinker?  
   - [ ] Yes  
   - [ ] No

2. Have you ever awakened the morning after some drinking the night before and found that you could not remember part of the evening before?  
   - [ ] Yes  
   - [ ] No

3. Does your wife, husband or parents ever worry or complain about your drinking?  
   - [ ] Yes  
   - [ ] No

4. Can you stop drinking without a struggle after one or two drinks?  
   - [ ] Yes  
   - [ ] No

5. Do you ever feel bad about your drinking?  
   - [ ] Yes  
   - [ ] No

6. Do friends or relatives think you are a normal drinker?  
   - [ ] Yes  
   - [ ] No

7. Do you ever try to limit your drinking to certain times of the day or to certain places?  
   - [ ] Yes  
   - [ ] No

8. Are you always able to stop drinking when you want to?  
   - [ ] Yes  
   - [ ] No

9. Have you ever attended a meeting of Alcoholics Anonymous AA?  
   - [ ] Yes  
   - [ ] No

10. Have you gotten into fights when drinking?  
    - [ ] Yes  
    - [ ] No

11. Has drinking ever created problems with you and your wife, husband?  
    - [ ] Yes  
    - [ ] No

12. Has your wife, husband or other family member ever gone to anyone for help about your drinking?  
    - [ ] Yes  
    - [ ] No

13. Have you ever lost friends or girlfriends/boyfriends because of your drinking?  
    - [ ] Yes  
    - [ ] No

14. Have you ever gotten into trouble at work because of drinking?  
    - [ ] Yes  
    - [ ] No

15. Have you ever lost a job because of drinking?  
    - [ ] Yes  
    - [ ] No

16. Have you ever neglected your obligations, your family, or your work for 2 or more days in a row because you were drinking?  
    - [ ] Yes  
    - [ ] No

17. Do you ever drink before noon?  
    - [ ] Yes  
    - [ ] No

18. Have you ever been told you have liver trouble? Cirrhosis?  
    - [ ] Yes  
    - [ ] No

19. Have you ever had delirium tremens DTs, severe shaking, after heavy drinking?  
    - [ ] Yes  
    - [ ] No

20. Have you ever gone to anyone for help about your drinking?  
    - [ ] Yes  
    - [ ] No
21. Have you ever been in a hospital because of your drinking?  

22. Have you ever been a patient in a psychiatric hospital or on a psychiatric ward of a general hospital where drinking was part of the problem?  

23. Have you ever been seen at a psychiatric or mental health clinic, or gone to a doctor, social worker, or clergyman for help with an emotional problem in which drinking has played a part?  

24. Have you ever been arrested, even for a few hours, because of drunk behavior?  

25. Have you ever been arrested for drunk driving or driving after drinking?
**Short MAST**

*Instructions:* For your answer place an X on the appropriate line following each question.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Do you feel you are a normal drinker?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Do your spouse or parents worry or complain about your drinking?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Do you ever feel bad about your drinking?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Do friends or relatives think you are a normal drinker?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Are you always able to stop drinking when you want to?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Have you ever attended a meeting of Alcoholics Anonymous AA?</td>
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<tr>
<td>7. Has drinking ever created problems between you and your spouse?</td>
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<td></td>
</tr>
<tr>
<td>8. Have you ever gotten into trouble at work because of drinking?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Have you ever neglected your obligations, your family, or your work for 2 or more days in a row because you were drinking?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Have you ever gone to anyone for help about your drinking?</td>
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<td>11. Have you ever been in a hospital because of your drinking?</td>
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<tr>
<td>12. Have you ever been arrested even for a few hours because of drinking?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Have you ever been arrested for drunk driving or driving after drinking?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Brief MAST

Instructions: Place a X on the line indicating your response.

1. Do you feel you are a normal drinker?  Yes  No
2. Do friends or relatives think you are a normal drinker?  
3. Have you ever attended a meeting of Alcoholics Anonymous AA?  
4. Have you ever lost friends or girlfriends/boyfriends because of your drinking?  
5. Have you ever gotten into trouble at work because of drinking?  
6. Have you ever neglected your obligations, your family, or your work for 2 or more days in a row because you were drinking?  
7. Have you ever had delirium tremens DTs, severe shaking, after heavy drinking?  
8. Have you ever gone to anyone for help about your drinking?  
9. Have you ever been in a hospital because of your drinking?  
10. Have you ever been arrested for drunk driving or driving after drinking?
1. A How many drinks does it take before you begin to feel the first effects of alcohol? 

or 

How many drinks does it take before the alcohol makes you fall asleep or pass out. If you never pass out, what is the largest number of drinks that you have? 

2. Have your friends or relatives worried about your drinking in the past year? 

Yes ___ No ___

3. Do you sometimes take a drink in the morning when you first get up? 

Yes ___ No ___

4. Are there times when you drink and afterwards can't remember what you said or did? 

Yes ___ No ___

5. Do you sometimes feel the need to cut down on your drinking? 

Yes ___ No ___
The T-ACE is a test developed to ascertain drinking in a very specific population—pregnant women.

**T** Tolerance: How many drinks does it take to make you feel high?

**A** Have people **annoyed** you by criticizing your drinking?

**C** Have you ever felt you ought to **cut down** on your drinking?

**E** Eye-opener: Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover?

The T-ACE, which is based on the CAGE, is valuable for identifying a range of use, including lifetime use and prenatal use, based on the DSM-III-R criteria. A score of 2 or more is considered positive. Affirmative answers to questions A, C, or E = 1 point each. Reporting tolerance to more than two drinks (the T question) = 2 points.
Trauma Index

Instructions: Place an X on the line following the question which indicates the most applicable response to the question.

"Since your 18th birthday:

- Have you had any fractures or dislocations to our bones or joints?  

- Have you been injured in a road traffic accident?

- Have you injured your head?

- Have you been injured in an assault or fight (excluding injuries during sports)?

- Have you been injured after drinking?"
Institute for Health and Recovery
Integrated Screening Tool

Women's health can be affected by emotional problems, alcohol, tobacco, other drug use, and domestic violence. Women's health is also affected when these same problems are present in people close to us. By "alcohol," we mean beer, wine, wine coolers, or liquor.

Parents
Did any of your parents have a problem with alcohol or other drug use?

YES  NO

Peers
Do any of your friends have a problem with alcohol or other drug use?

YES  NO

Partner
Does your partner have a problem with alcohol or other drug use?

YES  NO

Violence
Are you feeling at all unsafe in any way in your relationship with your current partner?

YES  NO

Emotional Health
Over the last few weeks, has worry, anxiety, depression, or sadness made it difficult for you to do your work, get along with people, or take care of things at home?

YES  NO

Past
In the past, have you had difficulties in your life due to alcohol or other drugs, including prescription medications?

YES  NO

Present
In the past month, have you drunk any alcohol or used other drugs?
1. How many days per month do you drink? _______
2. How many drinks on any given day? _______
3. How often did you have 4 or more drinks per day in the last month? _______

YES  NO

Smoking
Have you smoked any cigarettes in the past three months?

YES  NO

Review Risk
Review Domestic Violence Resources
Review Substance Use, Set Healthy Goals
Consider Mental Health Evaluation

Advise for Brief Intervention

Did you State your medical concern? Y  N  NA

Did you Advise to abstain or reduce use? Y  N  NA

Did you Check patient's reaction? Y  N  NA

Did you Refer for further assessment? Y  N  NA

At Risk Drinking

Non-Pregnant

Pregnant/Planning Pregnancy

> 7 drinks / week
> 3 drinks / day
Any Use is Risky Drinking

For the best health of mothers and babies, we strongly recommend that pregnant women, or those planning to become pregnant, do not use alcohol, illegal drugs or tobacco. Safe levels of usage have not been determined.

2005
Rationale for Utilization of the 5P'S

The Institute for Health and Recovery’s Integrated 5 P’S Screening Tool is based on Dr. Hope Ewing’s 4 P’s (Parents, Partner, Past and Pregnancy), and was designed specifically for pregnant women. The 4 P’s have been adapted by IHR, and, in another iteration, by Dr. Ira Chasnoff of the Children’s Research Triangle (see below). IHR has utilized the 5 P’S successfully in six years of the Alcohol Screening Assessment in Pregnancy Project, and in 18 months of the Fetal Alcohol Screening for Today Project. An article describing our utilization of the 5 P’S in prenatal settings was recently published in the Maternal and Child Health Journal.

The IHR 5 P’S was developed through funding by the Maternal and Child Health Bureau for the ASAP Project and is in the public domain.

We have chosen the 5PS for its simple structure and its relational base. It is a quick, easy, non-threatening, and effective tool for use in busy, resource-challenged prenatal care offices. It effectively asks a pregnant woman about her own use of alcohol in a nonjudgmental manner. For women at risk for use or not yet ready to report their own use, the 5PS asks about alcohol and other drugs by people who are most likely to be important in a woman’s life: her Partner and her Parents. Research has shown that women who are in relationships with partners or have parents who have alcohol/drug problems are more likely to use themselves and are also at risk for other medical concerns, such as infectious disease. The 5PS also encourages a woman to report a Past or Present problem with alcohol. The instrument opens the door to a possible conversation about a patient’s current alcohol or drug use, her past use, or use among people in close relationship to her. Each “P” and/or Smoking represents a documented risk for substance use during pregnancy. The 5 P’S can be embedded into existing office forms, used as part of a fuller pregnancy needs assessment as a self-administered written questionnaire (SAQ), or included in electronic medical records.

In ASAP, the 5P’s were asked in a specific order that started with a question about someone else’s alcohol use (Parents). Each subsequent question brought the issue of alcohol use closer to the pregnant women (Peers, Partner) until the last two questions asked about the patient’s Past and use during this pregnancy (present). This sequence was established to be as non-threatening as possible. Each of the risk assessment tools utilized in ASAP asked an additional question about tobacco use because of the documented link between pregnant women’s tobacco and alcohol use. Using the 5PS, including the tobacco use question, 35.5% of the pregnant women screened in ASAP over the first three years had at least one risk factor; the percentage has increased to 47% in more recent years. Most of those patients who screened in responded positively to the questions regarding tobacco use (ASAP1:58% community health centers, 45% private practices) and parental alcohol problem (31% community health centers, 12% private practices). ASAP2 figures are currently being analyzed. In accordance with the ASAP protocol, if a pregnant woman responded positively to any of the 5P’S or the tobacco use question, she would also receive a brief intervention. Implementation protocols for the 5 P’S may be found in Alcohol Screening Assessment in Pregnancy: The ASAP Curriculum, written and edited by the Institute for Health and Recovery.

Project FAST proposed to reduce the number of questions that can result in a positive screen at the request of prenatal care staff from ASAP sites. Prenatal staff felt that "parental" and "peer" use was less indicative of risk than "partner," "past," "present," or "tobacco," and that fewer positive responses resulted in the time savings of fewer brief interventions. As time issues are of paramount importance to medical staff, ASAP flexibility was an important factor in keeping busy prenatal sites engaged in the project. Positive responses to "parental" and "peer" indicate that a woman is at risk of alcohol use and prenatal staff use this opportunity to discuss risk with them.
In ASAP 1, a consultant conducted interviews with both patients who had completed the risk assessment with the 5P's embedded and with prenatal care staff at participating sites. Patient interviews found that when patients were asked about the 5P’s, they reported that they felt the set of questions was appropriate and understood them to be health related. Fifty percent reported that they found themselves thinking about issues raised in the questionnaire after the screening process had been completed.

The following comments from the prenatal care staff offer their views on the choice of embedding the 5P’s within a risk assessment at the initial visit:

"We liked the alcohol screening questions. It was easier for the patients to answer questions about other people as opposed to themselves." (Lynn Community Health Center)

"Clients may deny use throughout pregnancy, but they are open to discussion about other people’s use." (Great Brook Valley Community Health Center, Worcester)

"We considered it a guide for talking to patients about sensitive issues. We liked it because it looked at all aspects of a woman’s life, the whole person and issues." (Lynn Community Health Center)

"It is always a plus to have a tool that helps you look at risk behaviors." (Great Brook Valley Community Health Center, Worcester)

In addition to healthcare sites, IHR has successfully utilized the 5P’S screening/engagement tool in different settings:

- A Substance Abuse and Mental Health Services Administration-funded IHR project (Project RISE) provided intensive clinical case management services to homeless pregnant and parenting women with substance abuse problems living in motel rooms and shelters funded by the Massachusetts Department of Transitional Assistance. Although this project ended, the Massachusetts Department of Transitional Assistance has funded a similar program through IHR, utilizing the 5 P’S (RISE II).
- A Massachusetts Department of Transitional Assistance-funded FOR Families program, a home visiting program serving families leaving public assistance or living in “welfare motels.”
- A Center for Substance Abuse Treatment-funded project (Project WAVE) serving women and families in domestic violence shelters who are affected by mental illness, substance abuse and/or trauma.

National trainings on the IHR 5 P’S have taken place in Louisiana and New York, with upcoming trainings in California and another site in New York.

The Integrated 5 P’S Screening Tool expands on the original ASAP 5 P’S through reformatting the questions and providing visible pathways for provider utilization. Although questions regarding depression and domestic violence have been included in the ASAP 5 P’S, this new formatting has been welcomed by providers in the field. Harvard Pilgrim Health Plan was the first to utilize this tool in their innovative, telephonic case management program for women with high-risk pregnancies.

Dr. Ira Chasnoff, a respected pediatrician dedicated to improving children's health through maternal alcohol screening, uses a version of the original 4 P's that he and his colleagues developed and copyrighted. Dr. Chasnoff and the Children's Research Triangle, Inc. in Illinois received funding from the same HRSA source that funded ASAP1 and ASAP2. His tool does not include "peers" and is formatted to include a "field assessment," or brief intervention pathways. Although the actual tools are differently formatted and ask some different questions than the IHR 5 P’S, the rationale for their use is transferable to the IHR 5 P’S. Please see below The Children's Research Triangle's rationale for the "4 P's Plus."
Excerpts from "Research Basis of the 4P's Plus®"

"For the past several years, the research team at Children's Research Triangle (CRT) has been involved in developing and field-testing a screening methodology that will identify pregnant women at risk for alcohol and illicit drug use. The 4P's Plus® is a five-question screen specifically designed to quickly identify obstetrical patients in need of in-depth assessment or follow-up monitoring. Taking less than one minute, it can easily be integrated into the initial prenatal visit and used for follow-up screening through the pregnancy. The five questions are broad-based and highly sensitive.

The first step in the development of the 4P's Plus was a three-year study funded by the Health Care Financing Administration, the results of which were published in 2001. The goal of the study was to identify risk factors for substance use during pregnancy. Participants were 2,002 Medicaid-eligible pregnant women with two or less visits to prenatal care clinics in South Carolina and Washington State. Structured interviews were used to collect data. Logistic regressions and recursive partitioning classification and regression trees (CART analysis) identified predictors for pregnant women at high risk for substance use. Approximately 9% of the sample reported current use of either drugs or alcohol or both.

The regression results confirmed that past cigarette or alcohol use was significantly correlated with current drug or alcohol use. Furthermore, the effects of the various factors were cumulative; that is, women who had smoked and had ever used alcohol were 8 times more likely to use alcohol or drugs during pregnancy than women who had done neither. To refine the analysis and identify a small set of risk factors that could serve as the basis for a screening protocol for risk of alcohol or other drug use during pregnancy, a CART analysis was performed. Within the sample, the CART analysis generated three groups with increasing levels of risk for alcohol or illicit drug use during pregnancy:

- **Low risk** – those women who had never used alcohol: 1.4 % of women in the low-risk group reported using either drugs or alcohol or both during the time they had been pregnant

- **Average risk** – those women who had used alcohol in the past but not in the month before pregnancy: 8.7% of women in the average risk group reported using either drugs or alcohol or both during the time they had been pregnant

- **High risk** – those women who used alcohol in the month before pregnancy: 36% of women in the high risk group reported using either drugs or alcohol or both during the time they had been pregnant.

Entering cigarettes into the CART analysis, we found that the number of cigarettes smoked in the month before pregnancy helped to further distinguish the average risk and high risk groups. Of those women who had used alcohol in the past but did not smoke three or more cigarettes in the month before pregnancy, 3.4% reported using drugs during the time they had been pregnant. For those women who had used alcohol in the past and smoked three or more cigarettes in the month before pregnancy, 14.5% reported using drugs during pregnancy.

On the basis of these three levels of risk, we suggested that primary prenatal care providers could address three issues in the context of the health evaluation:

- Has the woman ever drunk alcohol?

- How much alcohol has the woman drunk in the month before pregnancy?

- How many cigarettes has the woman smoked in the month before pregnancy?
We integrated these three questions into the 4P’s screening instrument developed by Ewing and field tested our new instrument, the 4P’s Plus©, in a variety of settings and communities with over 100 physicians in Chicago, Illinois; Fresno, California; and East St. Louis, Illinois. Through this field testing, we learned:

• Physicians and other providers feel most comfortable if substance use screening can be incorporated into routine prenatal care and flows naturally within the context of the prenatal interview. Thus, we reversed the order of the questions in the Ewing’s 4P’s to make the P for Parents the first question and advised physicians to ask the question within the context of the family history. A positive response does not predict the woman’s substance use, but it allows the provider to introduce the issue of substance use in a non-threatening manner that sensibly is included in the family history.

• The second P, for Partner, is similar to the first P, in that a positive response does not predict the woman’s use of substances in pregnancy. However, a partner’s alcohol or drug use was found to correlate with risk for domestic violence in the home.

• A positive response to the third P, for Past, placed the woman at low risk for alcohol use during pregnancy, an indication for prevention services to be instituted as part of primary prenatal care.

• The two questions related to the fourth P, for Present Pregnancy, were converted to open-ended questions in an attempt to obtain an answer that most truthfully reflected the woman’s substance use patterns prior to pregnancy.

• Physicians and other providers, with training, gave strong support to the use of the 4P’s Plus as a screening instrument.

Evaluation of clinical usefulness of the 4P’s Plus© has shown successful outcomes. Through funding from the Maternal and Child Health Bureau, Access Family Health Network in Chicago, Illinois, initiated universal screening of pregnant women with the 4P’s Plus in 1998. Access Community Health Network is a PHS 330 community health center network with 20 sites in medically underserved Chicago neighborhoods. Its prenatal care clinics operate in eight federally qualified health centers, a residential substance abuse treatment program, a hospital, and a community based health advocacy group. The target population for the universal screening was comprised of 80% African American and 20% Hispanic pregnant women. Within the target area, 40 percent of target area residents were under 185 percent of the poverty level at the time of the 1990 census. Medicaid or a Medicaid managed care plan covered nearly all the patients living in these community areas. Within one year, screening rates in the Access system went from 5% of women to 50% of women. For the past two years, screening rates with the 4P’s Plus© have consistently remained at 95%. Among 1528 pregnant women screened with the 4P’s Plus© in this time period, about 30% of the women needed further intervention for their alcohol or other drug use.

In 1999, Fresno County, California, instituted universal screening with the 4P’s Plus© for pregnant women in its health care system. Since that time, the number of Medicaid eligible pregnant women being referred into substance abuse treatment has gone from 5% of women to 50% of women. For the past two years, screening rates with the 4P’s Plus© have consistently remained at 95%. Among 1528 pregnant women screened with the 4P’s Plus© in this time period, about 30% of the women needed further intervention for their alcohol or other drug use. Substance abuse screening assessment data developed in three very different communities utilizing the 4P’s Plus show a consistent story.”

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