

Primary Prevention of Fetal Alcohol Syndrome.

Targeting Women at High Risk through the Washington State FAS Diagnostic and Prevention Network.

1992-97

Final Report

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Susan J. Astley, Ph.D.
Diane Bailey, M.N.
Christina Talbot, M.S.W.
Sterling K. Clarren, M.D.

University of Washington
Seattle, Washington

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For Further Information Contact

Susan Astley, Ph.D.
Director Washington State FAS Diagnostic & Prevention Network
Center on Human Development and Disability, Box 357920
University of Washington
Seattle WA 98195
astley@u.washington.edu

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The FAS Diagnostic and Prevention Network

State of Washington

This program arose through pilot project funding from the March of Dimes Birth Defects Foundation and ongoing funding from the Washington State Legislature in the 1995-97 and 1997-99 sessions. The program trained other communities across Washington State to adapt the assessment and evaluation methods of the FAS Clinic at the University of Washington. The program has not only permitted the expansion of services for FAS primary and secondary prevention, but has become a laboratory through which we can follow how FAS diagnostic services are incorporated effectively into the health, social service and education cloth of a community. The current sites include:

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FAS Family Resource Institute

Jocie DeVries, Executive Director

The FAS FRI is a private non-profit organization with funding from the State of Washington to develop family advocacy in the area of fetal alcohol syndrome and to provide training to lay and professional audiences. The FAS FRI has been an invaluable resource for the program. They have helped to provide advocates to the FAS Clinic at the University of Washington and to the FAS DPN sites. They have always been ready to assist families in organizing their records prior to clinic and in finding suggested services after clinic. Most importantly, their ongoing training activities across the state has been the spur that stimulated large numbers of referrals to the program.

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Western Washington March of Dimes Birth Defects Foundation

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Executive Summary

This project initiated a complex series of efforts in Washington State aimed at the primary prevention of FAS through the identification of individuals with FAS so that their birth mothers could be identified and in turn helped to avoid recurrent affected offspring.

Through CDC funding, collaborative funding from Washington State, the March of Dimes Birth Defects Foundation, the John B. Chavez Fund for FAS research, and extensive cooperation and collaboration with numerous individuals and private and public agencies mentioned in the acknowledgements, we have been able to fully meet all six of our project goals.

The data set generated by this 5-year project is truly vast. The contents of this report are being prepared for submission to the peer-reviewed medical literature in the fall of 1998. At this time, we are providing a limited readership with this comprehensive set of data tables as set forth in the CDC Cooperative Agreement. The data tables present a comprehensive profile of the patients seen in the FAS DPN clinics in the first five years of operation and a comprehensive profile of the birth mothers of children identified prospectively and retrospectively with FAS.

This CDC Cooperative Agreement was undertaken as a first step in the development of an FAS diagnostic and prevention program. The primary objectives of the Cooperative Agreement are listed below in italics followed by a brief summary the FAS DPN's accomplishments to date.

1. *Establish an FAS Diagnostic Clinic and demonstrate that it is an effective and efficient tool for identifying individuals with FAS and for identifying the biologic mothers of these individuals, women who are at the highest risk for having other children with FAS.*
 - a. *Establish an FAS Diagnostic Clinic and describe the population referred and evaluated.*

The CDC-sponsored FAS Clinic was established in January, 1993 at the Center for Human Development and Disability (a University Affiliated Program) at the University of Washington in Seattle. In July, 1995 the U. W. FAS Clinic was expanded into a network of seven community-based clinics statewide (the WA State FAS Diagnostic and Prevention Network). This expansion was mandated by the 1995 WA State Legislature in response to the high statewide demand for services. The FAS DPN provides diagnostic and referral services to patients and their caregivers; training for social, health care, educational and correctional rehabilitation providers statewide; primary prevention intervention for birth mothers of children with FAS; and FAS surveillance and screening for selected populations (foster care, juvenile rehabilitation). The FAS DPN budget is currently managed by the Division of Alcohol and Substance Abuse in the Department of Social and Health Services. Initial seed funding had been provided by the Western Washington March of Dimes Birth Defects Foundation in 1994.

The FAS DPN is supported by an extensive database that profiles the patient population referred and evaluated in the network. At present, the FAS DPN database contains 976 fields of data on up to 3,275 patients, 53 fields of data on up to 2,422 clinical facial

photographs, and 1,928 fields of data on 80 birth mothers of children diagnosed with FAS.

b. Determine the rate at which individuals can be identified with FAS in the Clinic.

In the first four years of this five-year Cooperative Agreement, the gestalt method of FAS diagnosis (Sokol & Clarren, 1989) was used. With the creation of the statewide FAS DPN in 1995, a new, more comprehensive method of diagnosis (Diagnostic Guide for FAS and Related Conditions: The 4-Digit Diagnostic Code, Astley & Clarren, 1997) was created to ensure diagnostic accuracy and precision across all clinics. Using the gestalt method of diagnosis, 19.5% (115/591) of children evaluated in the University of Washington FAS Clinic were diagnosed with FAS. In 1997, all diagnoses made in the first four years of clinic operation were converted from the gestalt classification to the 4-Digit classification to achieve diagnostic consistency across all FAS DPN patients. The proportion of patients diagnosed with FAS using the more stringent 4-Digit Diagnostic Code classification was 4.8% (39 / 811) children evaluated in the FAS DPN clinics in the first five years of operation. The proportion of children with documented prenatal alcohol exposure and documented CNS dysfunction using the 4-Digit Code classification (diagnostic categories A-C, E-F) was 29.3% (238 / 811) in the first five years of operation. All tables in this report, profiling the patients seen in the FAS DPN, reflect the 4-Digit Diagnostic Code.

c. Estimate the cost associated with this method of identifying individuals with FAS.

A formal cost-benefit analysis was not proposed or conducted. The FAS Clinic cost approximately \$85,000 (direct costs for personnel) annually to operate at the University of Washington. The clinic evaluated, on average, 170 patients per year, and diagnosed 31 patients with FAS (using the gestalt method defined by Sokol & Clarren, 1989). Using the new 4-Digit Diagnostic Code method (1997) the clinic identifies on average 50 patients with prenatal alcohol exposure and documented CNS dysfunction, of which eight or nine are FAS or atypical FAS annually. The target population for primary prevention will be birth mothers of children with prenatal alcohol exposure and documented CNS dysfunction, not just the subset with FAS. In addition to providing diagnostic services, the annual costs supported the development of a comprehensive research database, creation of the computerized FAS photographic screening tool, creation of the Diagnostic Guide for FAS and Related Conditions, training of over 500 clinical and social service professionals and creation of a FAS Primary Prevention Program.

d. Determine what proportion of mothers of children diagnosed with FAS in the clinic can be identified and located.

Two hundred and fifty-seven birth mothers, who had given birth to at least one child with FAS, were identified through the gestalt diagnosis of their child. Of the 257 birth mothers, 147 (57%) were identified prospectively through the CDC-sponsored FAS DPN Clinics and 110 (43%) were identified retrospectively through the diagnosis of

their child in a clinic established prior to the CDC-sponsored FAS Clinic. A summary of maternal identification and location is presented in Table III.1. Of the 147 mothers identified prospectively through the FAS DPN clinics, 139 (94.6%) were identified by name and 84 (57.1%) were identified by name and located. Of the 84 women who were identified by name and located, 47 (56.0%) were eligible to be invited into the study and 46 (97.9%) accepted the invitation and enrolled for an interview. Of the 84 women identified by name and located, a total of 37 women were not invited to enroll for the following reasons, 20 did not live in Washington State, 12 were confirmed deceased and five could not be contacted directly for invitation. The success at identifying, locating and enrolling birth mothers of children diagnosed with FAS prior to the 1993 CDC-sponsored FAS Clinic was comparable to the success observed in the FAS DPN Clinics (Table III.1).

- e. *Determine what proportion of the identified and located mothers are still at risk for producing more children with FAS (i.e., still actively drinking and fertile).*

Among the 80 birth mothers interviewed, 20 (25%) were fertile and actively drinking, 17 (21.1%) were fertile and at risk for drinking, 19 (23.8%) were not fertile, but actively drinking and 24 (30.0%) were not fertile, but at risk for drinking at the time of their child's FAS diagnosis (Table V.10).

- f. *Estimate the cost associated with identifying and locating the mothers of the individuals diagnosed with FAS in the clinic who are at risk for producing more children with FAS.*

A social worker devoted approximately 162 days (35% effort for 27 months) to locate and enroll 80 birth mothers from the list of 257 eligible women (see Section III). Far less effort was required to locate the women who were identified prospectively through the diagnosis of their child in the FAS DPN clinics than to locate the women who were identified retrospectively through the diagnosis of their child in a previous clinics that were conducted up to 19 years ago.

2. *Demonstrate how the FAS Clinic model can be an integral component of an FAS surveillance system for estimating the prevalence of FAS in Washington State.*

- a. *Demonstrate the clinic can serve as a core center for establishment of satellite diagnostic clinics for screening in special populations (i.e., schools, foster care, and juvenile rehabilitation systems).*

The University of Washington FAS Clinic was expanded into a statewide FAS Diagnostic and Prevention Network (FAS DPN) of seven clinics in 1995. This expansion was mandated by the 1995 WA State Legislature and supported by funds from the March of Dimes and Division of Alcohol and Substance Abuse in the WA State Department of Social and Health Services. The FAS DPN continues to be supported by WA State and provides diagnostic referral services to patients and their caregivers, primary prevention intervention services to mothers of children with FAS, FAS screening and surveillance in foster and juvenile rehabilitation populations, and

training for social, health care, educational and correctional professionals statewide (see Section II).

- b. *Demonstrate the clinic can serve as a core research database center for collection of sufficient data to establish key components necessary for the implementation of FAS surveillance (i.e., generate an FAS case definition, develop effective screening tools, identify effective interventions for individuals with FAS, all of which are needed if we are to successfully encourage and support the identification of individuals with FAS)*

The FAS DPN is supported by an extensive database which profiles the population referred and evaluated in the network. At present, the FAS DPN database contains 976 fields of data on up to 3,275 patients, 53 fields of data on up to 2,422 clinical facial photographs, and 1,928 fields of data on 80 birth mothers of children diagnosed with FAS. This data was used to develop the Diagnostic Guide for FAS and Related Conditions: The 4-Digit Code (Astley & Clarren, 1997), the computerized photographic FAS screening tool (Astley & Clarren, 1996) and a Communicative Behavior Assessment tool (Coggins et. al., 1998). The database and patient registry support ongoing intervention research including a study to improve social-communication deficits in children with FAS (Olswang & Coggins, 1996), a school and home-based pilot intervention study (Quinby et. al., 1997), a secondary disabilities study (Steissguth et. al., 1996) and a study of craniofacial dysmorphology (Omnell & Shashua, 1997).

3. *Generate a comprehensive lifetime profile(s) of the mothers of children with FAS identified in this study.*
 - a. *Describe the population who will eventually be targeted for primary prevention intervention.*

A comprehensive lifetime profile of 80 birth mothers of children with FAS is presented in Tables V.1 through V.14.

- b. *Determine if there is sufficient evidence to advance a hypothesis that women who give birth to children with FAS are a unique and identifiable subset of all alcoholic women.*

The profile of the 80 birth mothers presented in Section V. will be compared to published profiles of female alcoholic populations over the next few months. The results will be summarized and submitted for publication (see Section V.).

- c. *Identify factors that differentiate the mothers who have and have not achieved sobriety since the birth of the index child with FAS.*

Factors that differentiate the mothers who have and have not achieved sobriety at the time of their child's FAS diagnosis and at the time of the interview are presented in Tables VI. 1 and VI. 2.

- d. *Document maternal use of birth control throughout their reproductive years and identify factors that may have enhanced or hindered their use of birth control.*

Maternal use of birth control throughout their reproductive years and identification of factors that may have enhanced or hindered their effective use of birth control are presented in Tables V.8.a through V 8.h.

4. *Share the information gathered in this study with state and local agencies to enhance the effectiveness of alcohol treatment and family planning programs targeted to mothers of children with FAS.*

The information gathered in this study has been shared with state and local agencies as documented in Tables VII.1 through VII.6. We continue to share this data on a daily basis statewide and nationally. The contents of this report are being prepared for publication in the peer-reviewed literature in the fall of 1998.

5. *Describe the parameters of the clinic itself, so that a clinic system for FAS can be understood and incorporated into appropriate settings nationally for prevention efforts.*

The FAS DPN has been described in full in "Clarren SK, Astley SJ. The development of the fetal alcohol syndrome diagnostic and prevention network in Washington State. In: Streissguth A and Kanter J (Eds.) *The Challenge of Fetal Alcohol Syndrome: Overcoming Secondary Disabilities*. Seattle: University of Washington Press 1997, pp. 40-51". Manuals and tools have also been created for training multidisciplinary teams on how to establish their own FAS DPN site. These manuals were used to train the six WA State FAS DPN sites. They include:

1. Diagnostic Guide for FAS and Related Conditions, 1st edition 1997.
2. Psychological Assessment and Treatment Planning Manual, 1st edition 1996.
3. Process Manual (detailed description of the UW clinic format and procedures), 1996.
4. Procedures Manual (description of Network goals and site responsibilities), 1996.
5. Data Collection and Consent Form Instruction Guide, November 1997.
6. Communicative Behavior Assessment, 1st edition, January 1998.
7. FAS-Tutor Compact Disk, (to train physicians to recognize and accurately measure physical features associated with FAS) to be complete in May 1999.

6. *Provide patients for other currently funded CDC research studies in Washington State.*

A total of 344 patients were recruited from the University of Washington FAS Clinic to enroll in Dr. Ann Streissguth's CDC-sponsored secondary disability prevention project 1992-95 (Streissguth et. al., 1996; Streissguth & Kanter, 1997). Summaries from the FAS Clinic and Maternal populations were shared with the Rose Quinby at the Seattle-King County Department of Public Health for development of their CDC-sponsored primary prevention models. The FAS DPN clinics at the University of Washington and in Federal Way provided screening and diagnostic services for all children (n = 180) participating in the South King County Foster Care Screening Project funded by the CDC-sponsored Secondary Disabilities Grant awarded to the Washington State Department of Health. Finally, the FAS DPN provided patients to participate in Rose Quinby's FAS intervention pilot study (Quinby et. al., 1997).

I. Primary Prevention of FAS.**I.A. The Rationale for this Approach to the Problem.**

It is axiomatic that the evolution of effective prevention and treatment programs for nearly any medical condition rests on the identification of sufficient numbers of patients so that interventions that are hypothesized to be effective can be appropriately evaluated. The identification of “patients” is made more difficult than usual in conditions like FAS when both the child and the parent should be appropriately identified as “the patient”, but the diagnosis in the child often is made after the child is no longer in the birth mother’s custody and the diagnosticians have no direct access to the birth mother or her records. It was our belief when we began this project five years ago, and it remains our belief now, that FAS is vastly under-recognized and the mothers of the small percentage of cases who have been identified are even more infrequently found. This lack of identification has limited improved treatment and prevention efforts, but has not prevented tremendous social expense in terms of inadequate education, drug and alcohol treatment, mental health and social interventions and numerous additional births of affected children by the same women.

The failure to medically diagnose FAS has complex antecedents that include three apparently commonly held beliefs. First, some physicians remain ignorant of the existence of FAS or the diagnostic approach to this syndrome, or any syndrome. Second, many physicians believe that intervention programs are equally effective for individuals with any etiologic form of mental retardation or attention deficit disorder and they fail to recognize the more complex and subtle brain damage in alcohol affected individuals. They also fail to recognize their role in helping to identify the birth mother for future prevention efforts through recognition of FAS in the child (this may truly be their current scope in the current system). Third, patients with FAS and their families often need help with foster or adoption support services, educational interventions, alcohol treatment, vocational rehabilitation, and/or the criminal justice system. Most physicians are not trained to lead intervention programs in these arenas nor are they likely to have well-established referral linkages to professionals in these other fields. Further, many physicians may believe these issues are truly outside of the appropriate purview of pediatrics and “health care”. The actualization of these false beliefs sets up a self-defeating cycle. When physicians fail to perceive that a diagnosis of FAS will benefit the patient, the birth mother, the family, and society, FAS remains under-diagnosed. When individuals are not diagnosed, it is not possible to demonstrate the benefits of diagnosis to the child or the parent, nor can surveillance be done accurately enough to monitor the success of prevention efforts.

Although physician attitudes limit FAS diagnosis, we have found an intense interest by families and professionals from social service, educational, and correctional facilities to confirm FAS and related-condition diagnoses and consider their implications for intervention.

The ideas that stimulated this proposal in 1992 arose from our experiences in the 1980’s. Increasing knowledge of FAS in the medical literature and public media, and countless medical trainings on the subject, did not seem to be changing medical practice in diagnosing FAS. Rather, we felt that a new team approach to diagnosis and treatment planning was needed in clinics dedicated to FAS issues if the negative beliefs described above were to be effectively challenged.

We believed that clinics dedicated specifically to FAS were the critical missing step in helping to solve this problem. First, FAS clinics could provide a mechanism for demonstration of community interest in the diagnosis of FAS and an opportunity to determine which professionals seek consultation and what issues or problems drive those referrals. The clinics could accurately make FAS diagnosis using appropriate and consistent assessments of physical, cognitive, and behavioral abnormalities. The clinics could recommend treatment programs and over time determine if these programs were available and, if available, effective. The clinics would stimulate ideas for novel treatment modalities and would generate enough patients and sufficient linkage to treatment venues that implementation and assessment could be done.

Second, clinics would become a critical resource in public awareness - FAS prevention programs. As the general public is made aware of FAS and related conditions and warned to avoid alcohol use in pregnancy, families who have children who might have FAS are also made aware of the disorder and they often become concerned. These families deserve to have appropriate diagnostic facilities nearby to answer their questions and provide appropriate diagnosis and treatment planning.

Third, clinics were necessary in active screening of appropriate high-risk sub-populations like foster care or juvenile rehabilitation. Patients who screened positive needed a resource for final accurate diagnosis and counseling that could only be reliably met through dedicated clinics.

Fourth, the clinics could be a critical tool for primary prevention. Not all women alcoholics appear to be at equal risk for having children with FAS. Although women who have one affected child often have more, to date there is no anticipatory biologic or sociologic markers that distinguish the mothers of children with FAS from other women who drink in pregnancy and have normal or nearly normal children. Treatment of women for alcoholism during pregnancy probably comes too late to prevent brain damage in affected fetuses even if the right high risk, alcoholic women are selected for therapy. While it would be ideal to identify and treat all alcoholic women prior to pregnancy, resources for such a project are not available. However, each patient with FAS (as identified through an FAS diagnostic clinic) has a mother who has a proven ability to give birth to a child with FAS. Focusing prevention efforts on this select and high risk group of women could reduce the incidence of FAS births dramatically without overburdening the current health care/alcohol treatment system.

This project allowed for the development of an FAS clinic at the University of Washington that could demonstrate our conviction that under-diagnosis of FAS was occurring and could be corrected, and that the birth mothers of the patients could be found. Once found, the mothers could be interviewed to generate comprehensive lifetime profiles which, in turn, could be used to develop intervention programs targeted to meet their needs.

The program has met all of its objectives and many others:

Identification of individuals with FAS: In Washington State, the general recognition of FAS does not appear to be higher than elsewhere in the United States. In 1991, the Washington State Birth Defects Registry reported a estimated prevalence of 1.6/10,000 live births for 1987-1988 and this is highly comparable to rates of 1.3/10,000 in California (1983-1986), Iowa 1.0/10,000 (1986--1989), and metropolitan Atlanta 1.2/10,000 (1986-1989). Yet, in a recently completed CDC-sponsored study of all first graders in school districts in two Washington State counties, a minimum rate of FAS of

1.9/1,000 (actually 7/3,712) was found in a population that had been screened (but not identified) by the Washington State Birth Defects Registry in 1986-87 (unpublished). Among the first 591 patients evaluated in the FAS DPN, 115 individuals (16%) were identified with FAS or atypical FAS and 346 individuals (59%) were identified with prenatal alcohol exposure and cognitive/behavioral dysfunction. The diagnostic recommendations of Sokol and Clarren (1989) were used to classify these patients.

To our knowledge, finding 115 cases of FAS/AFAS (using the gestalt method of diagnosis) among 591 patients evaluated is the largest and most efficiently found group of patients with FAS ever assembled. Descriptions of all 811 patients evaluated in the U.W. FAS Clinic in the first five years of operation are presented in Section II of this report.

The clinic was so successful that it was unable to deal with the very large demand for services. Working first with the Western Washington Chapter of the March of Dimes Birth Defects Foundation and then with the Washington State Legislature, we were able to help pass a law in 1995 which directed us to develop community-based clinics like the one at the University throughout the state. This was the beginning of the Washington State FAS Diagnostic and Prevention Network (FAS DPN); at present, a consortium of seven clinics in six counties, generally close to all major population areas.

We are currently developing similar clinics in several other states including Ohio, Minnesota, and California and a Canadian province (British Columbia). We believe our clinical approach will soon be a national model that will arise not from federal direction, but from grassroots local or state level interest. These clinics will permit the kinds of clinical research and epidemiologic studies that have been needed for so long. This could not have happened without this CDC-sponsored project.

We had no doubt that with support like the support we have received from the CDC, we could build an efficient and effective clinical model for FAS diagnosis. It was less clear from the start that the clinic could demonstrate success at identifying the birth mothers of patients with FAS. To date, no one has published a description of a large cohort of birth mothers of patients with FAS. No one has known if these women were unique in their specific needs or circumstances that would need to be considered in their alcohol treatment or family planning decisions. No one has known how many of the birth mothers would have achieved sobriety on their own (by the time they were identified). No one has known how many more alcohol affected births could have been prevented if maternal intervention began at the time her child was diagnosed with FAS.

This project set out to evaluate these questions. We anticipated that we would identify about 160 patients with FAS (as defined by Sokol & Clarren, 1989) in the period of study available for that activity and predicted that we would be able to contact and interview about half of the birth mothers. These predictions were on target. Eighty birth mothers were found and interviewed. Their stories are told in the Tables presented and discussed in Sections III through VI.

The clinics have been an active site for training and dissemination of information about FAS and the approach to its diagnosis and treatment. Over 500 individuals have visited the clinic at the University of Washington. The trainees have diverse professional backgrounds and come from most parts of the United States and several other countries (see Section VIII).

The need to train visitors as well as the need to train our team members at the affiliated sites has led to a series of training manuals and tools that are now in wide usage in Washington State. These include:

1. Diagnostic Guide for FAS and Related Conditions, 1st edition 1997.
2. Psychological Assessment and Treatment Planning Manual, 1st edition 1996.
3. Process Manual (detailed description of the UW clinic format and procedures), 1996.
4. Procedures Manual (description of Network goals and site responsibilities), 1996.
5. Data Collection and Consent Form Instruction Guide, November 1997.
6. Communicative Behavior Assessment, 1st edition, January 1998.
7. FAS-Tutor Compact Disk, (to train physicians to recognize and accurately measure physical features associated with FAS) to be complete in May 1999.

While none of these manuals are deliverables of this project, they would not have been possible without the experiences gained in our CDC-sponsored clinics.

Another result of the clinic program was the ability to accumulate clinical photographs of patients with FAS. This allowed for the development of a computerized analysis of the FAS face and the development of a computerized photographic technique for FAS screening and surveillance (Astley & Clarren, 1996). This photographic screening tool has been used in two Native American tribes, and is currently being used to screen children entering foster care, juvenile rehabilitation and a newborn screening project in Santiago, Chile. The tool shows much promise for the future.

II. Identification of Individuals with FAS

II.A. Overview

It was our hope that the results of this project would lay the ground work for an ongoing prevention effort against FAS in Washington State (which has now occurred). We reasoned that it was likely that most future diagnosed cases of FAS would come through clinical programs rather than through specifically funded population-based studies. Therefore it was appropriate to first focus our project on women who had children who had been diagnosed with FAS in clinical programs. Then to demonstrate that the birth mothers of patients identified through such systems could be found using legal means and respecting the rules of confidentiality. And finally to interview those women to see what factor(s) in their lives needed to be addressed in order to help them to avoid giving birth to additional children with alcohol related disabilities. To this end we initiated the FAS Clinic at the University of Washington in January of 1993 with funding from this CDC Cooperative Agreement.

The format and function of the FAS Clinic is described in (Clarren and Astley, 1997). Briefly, the FAS Clinic was initiated with this Cooperative Agreement and began on January 8, 1993. The clinic is held one day per week and sees two to four patients and their caregivers each day. The Clinic is staffed by a multidisciplinary team that includes a developmental pediatrician, a dysmorphologist, educational and clinical psychologists, an occupational therapist, an audiologist, a family therapist, and a communication specialist. Applications for appointments are taken over a telephone hotline. Patients seek their own appointment or are seen on referral. Referrals come from social agencies (i.e. foster/adoption case, child protective services), educational facilities (school, educational psychologists, vocational rehabilitation programs), the criminal justice system, and rarely from physicians or other health care providers. All persons who call are sent a New Patient Information Form (NPIF) to complete (Appendix A). The NPIF documents the patient's physical and developmental history and gestational exposures. The completed and returned NPIF's (often including photos) are reviewed by Drs. Astley and Clarren on a weekly basis and are prioritized based on the likelihood of making an FAS diagnosis. A scheduling priority score of "A" high risk for FAS, "B" alcohol exposed but not FAS, or "C" an alcohol related diagnosis improbable, is assigned. Patients who are likely to have FAS and who have a biologic mother who is easily found are given top scheduling priority. Patients who have no physical stigmata of FAS (based on report and photographs) and no gestational history of exposure to alcohol are given lowest priority (it is suggested to them that they seek help elsewhere). There continues to be enough patients on the waiting list in categories "A" and "B" to fill twelve months of clinics. The list is regularly re-prioritized so that category "A" patients move to the top of the list.

Caregivers are asked to bring copies of previous school, medical, and psychological evaluations to clinic on the day of their appointment. The caregivers are interviewed by a pediatrician and psychologist at the clinic and the patient is examined to determine if he/she has the physical features of FAS. The patient also receives a brief language and neurologic assessment. After the interview and clinical examination, the clinic team completes the FAS Diagnostic Evaluation Form (Appendix A), derives a diagnosis, and generates a referral plan for treatment and services. The caregivers then meet with the Clinic team to discuss the diagnosis and referrals. The caregivers receive a complete medical summary within three weeks after their clinic visit. A "Survey of Client Satisfaction" form is sent with the medical summary. The caregivers are requested to complete the survey and return it to us in the self-addressed envelope provided. The survey may be completed anonymously, but 95% of the patients choose to sign it.

II.B. Sources of Patients with FAS

The diagnosis of patients with FAS did not begin with the CDC-sponsored University of Washington FAS Clinic in 1993. The diagnosis had been actively made in our clinical system since the early 1970's when David Smith, M.D. and his colleagues identified the first cases in the United States. Dr. Clarren has been actively making the FAS diagnosis since entering practice in 1978. Until very recently the diagnosis of FAS has been made by Dr. Clarren using a typical dysmorphic gestalt method based on guidelines that were established in the initial case reports and then refined over time (Jones and Smith, 1973; Clarren & Smith, 1978; Rossett, 1980; Sokol and Clarren, 1989). The diagnosis has rested on finding evidence of growth deficiency, a specific cluster of minor facial anomalies and evidence of central nervous system dysfunction in the presence of a likely history of gestational alcohol exposure. Other malformations might be found in individuals being considered for an FAS diagnosis, but these additional features have not been thought necessary for making the diagnosis or sufficiently specific to alcohol teratogenesis to be used in place of the pertinent facial features when making the diagnosis. Obviously these guidelines permit a broad degree of clinical interpretation in each domain. This is usually thought necessary in the development of a clinical condition. Over time a more precise case definition is often developed. Drs. Astley and Clarren proposed such a case definition in the "Diagnostic Guide for Fetal Alcohol Syndrome and Related Conditions" (Astley & Clarren, 1997).

In the first four years of this five-year Cooperative Agreement, the gestalt method of FAS diagnosis (Sokol & Clarren, 1989) was used. With the creation of the statewide FAS DPN in 1995, a new, more comprehensive method of diagnosis (Diagnostic Guide for FAS and Related Conditions: The 4-Digit Diagnostic Code, Astley & Clarren, 1997) was created to ensure diagnostic accuracy and precision across all clinics. Using the gestalt method of diagnosis, 19.5% (115/591) of children evaluated in the University of Washington FAS Clinic were diagnosed with FAS/AFAS. In 1997, all diagnoses made in the first four years of clinic operation were converted from the gestalt classification to the 4-Digit Diagnostic Code classification to achieve diagnostic consistency across all FAS DPN patients. Using the 4-Digit Diagnostic Code classification, 29.3% (238 / 811) of the patients evaluated in the FAS DPN in the first five years of operation had prenatal alcohol exposure and documented evidence of CNS dysfunction (diagnostic categories A-C, E-F). 4.8% (39 / 811) of these patients were diagnosed with FAS/AFAS (diagnostic categories A and B). One of the greatest benefits of the new 4-Digit Diagnostic Code method is its ability to accurately identify patients and birth mothers most likely to benefit from primary and secondary prevention intervention, namely those with alcohol exposure and CNS dysfunction, not just those with FAS.

The FAS Clinic did not advertise its existence since the program was overwhelmed with appropriate referrals from its inception. Nevertheless, we think it is important to emphasize advertising was occurring through the education offerings of several statewide groups. At least a dozen faculty members from the University of Washington, members of the Washington State Department of Health and the Department of Social and Health Services and the Seattle-King County Department of Public Health (including a specific employee FAS educator), and family advocates were frequently speaking to various lay and professional audiences throughout the state. Community level education was paramount to the success of the clinical program.

The Clinic saw patients that had almost always been previously seen for developmental concerns. The vast majority of patients had never been previously diagnosed and the few who had a prior diagnosis generally did not have FAS (Table II.4). This strongly emphasizes why dedicated and responsive clinics are needed. Even in areas with active research programs and long standing interest in this program, the

FAS diagnosis is not being made in the community - probably for the reasons noted in the introduction. The data in this section demonstrates how successful such dedicated clinics can be.

The women enrolled in this study all had to have given birth to a child with FAS. The primary source for these patients was the FAS Clinic at the University of Washington, which was funded by this project. It became clear early in the study that even though the clinic was very efficient in identifying FAS patients, many more patients had already been diagnosed in other clinical settings at the University of Washington and Children's Hospital by Dr. Clarren using the same clinical criteria. These clinical lists were a second retrospective source of patients with FAS. Finally, as the other clinics were developed in the Washington State FAS Diagnostic and Prevention Network, they became a third source of patients.

Thus, the patients represent a large sample of patients in Washington who have been diagnosed with FAS through the only tertiary medical center in the state. While the sample does not represent all cases of FAS or all diagnosed cases of FAS, it is comparable to other samples of subtle disorders that are only reliably diagnosed in referral centers. Since it is likely that dedicated clinics will remain the best way to make FAS diagnoses in the future, the mothers who are found should be representative of the mothers who will be found through this practical and traditional approach.

II.C. Profile of the FAS DPN Clinic Population

Tables II.1 through II.10 present a comprehensive profile of the all patients who requested a diagnostic evaluation at the FAS DPN. More specifically, Table II.1 documents the demand for diagnostic services experienced by the FAS Clinic. Table II.2 summarizes the concerns of the patients' caregivers as they expressed them to us on the New Patient Information Form (Astley & Clarren, 1997) (Appendix A). Tables II.3 through II.10 provide a comprehensive profile of the 4-Digit diagnostic outcomes of all patients seen in the FAS DPN. The tables present the diagnostic information in the order presented in the FAS Diagnostic Evaluation Form (Astley & Clarren, 1997) (Appendix A).

Table II.1. Ability to meet demand for diagnostic services at the U.W. FAS DPN Clinic in the first 5 years of operation (1993-97).

Characteristic			
Total requests for appointments <small>reqdate2</small>		n	3,002
New Patient Information Forms (NPIF, Appendix A) completed by caregivers and submitted to the clinic for review <small>n1</small>		n	1,374
Patient age (yrs.) at time of NPIF submission <small>NPIFage3</small>		n	(valid %)
0.0 to 5.9		484	(35.3)
6.0 to 10.9		411	(29.9)
11.0 to 15.9		272	(19.8)
16.0 to 20.9		107	(7.8)
21.0 and up		99	(7.2)
Mean <small>NPIFagen</small>	mean (S.D.)	min. - max.	(n)
	9.9 (7.9)	0.1 - 55.4	(1,373)
Gender ratio among patients who submitted NPIF		n:n	(valid %)
Female:Male (% female) <small>n8</small>		594:780	(43.2)
Race ¹ among patients who submitted NPIF <small>racekid2</small>		n	(valid %)
1. Caucasian <small>(aa)</small>		769	(56.3)
2. African American <small>(bb, b*, *b)</small>		155	(11.3)
3. Native American, Alaskan or Canadian Native <small>(any c, d, e)</small>		312	(22.8)
4. Asian <small>(any g, l, m, n)</small>		16	(1.2)
5. Hispanic <small>(any f)</small>		106	(7.8)
6. Other <small>(all others)</small>		8	(0.6)
7. Unknown		8	(--)
Primary caregiver at the time the NPIF was submitted <small>n23r</small>		n	(valid %)
Birth mother		227	(16.6)
Birth father		98	(7.1)
Adoptive parent		301	(22.0)
Foster parent		401	(29.3)
Other biological family member		215	(15.7)
Self		66	(4.8)
Group home		3	(0.2)
Incarcerated		1	(0.1)
Legal guardian		3	(0.2)
Step parent		1	(0.1)
Case manager		1	(0.1)
Other		53	(3.8)

Table II.1 (cont.). Ability to meet demand for diagnostic services at the U.W. FAS DPN Clinic in the first 5 years of operation (1/93 – 12/97).

Characteristic				
New Patient Information Forms (NPIF) completed and submitted (continued)				
Patient's place of residence ² at time of NPIF submission _{geoarea}			n	(valid %)
1. Urban Western Washington			840	(61.2)
2. Rural Western Washington			317	(23.1)
3. Central Washington			80	(5.8)
4. Eastern Washington			87	(6.3)
5. Outside Washington State			49	(3.6)
Distance from residence to U.W. Clinic (miles, one way) _{mileage2}			n	(valid %)
0 – 50			901	(65.6)
51 – 100			225	(16.4)
101 – 150			68	(5.0)
>150			178	(13.0)
Screening outcome among patients who submitted NPIF _{scrnout2}			n	(valid %)
High risk for FAS (A)			323	(24.0)
Unlikely to be FAS, but high risk for PFAE (B)			710	(52.8)
No risk for FAS/PFAE based on information provided			312	(23.2)
Number of patients evaluated in FAS Clinic_{df13}			n	
			811	
Age (yrs) at time of FAS Clinic evaluation _{clinage3}			n	(valid %)
0.0 to 5.9			247	(30.5)
6.0 to 10.9			267	(32.9)
11.0 to 15.9			176	(21.7)
16.0 to 20.9			64	(7.9)
21 and up			57	(7.0)
Mean _{clinage2}		mean	(S.D.)	min. - max. (n)
		10.2	(7.5)	0.2 - 50.9 (811)
Gender ratio among patients seen in FAS Clinic _{n8}			n:n	(valid %)
Female:Male (% female)			348:463	(42.9)
Race ¹ among patients seen in FAS Clinic _{racekid2}			n	(valid %)
Caucasian			458	(56.6)
African American			78	(9.6)
Native American, Alaskan or Canadian Native			194	(24.0)
Asian			9	(1.1)
Hispanic			66	(8.1)
Other			5	(0.6)
Unknown			1	(--)

Table II.1 (cont.). Ability to meet demand for diagnostic services at the U.W. FAS DPN Clinic in the first 5 years of operation (1/93 – 12/97).

Characteristic		
Among patients evaluated in the FAS Clinic (continued)		
Primary caregiver at time of FAS Clinic evaluation ^{n23r}	n	(valid %)
Birth mother	153	(18.9)
Birth father	68	(8.4)
Adoptive parent	164	(20.2)
Foster parent	248	(30.6)
Other biological family member	114	(14.1)
Self	31	(3.8)
Group home	1	(0.1)
Incarcerated	1	(0.1)
Other	31	(3.8)
Patient's place of residence ² at time of FAS Clinic evaluation ^{geoarea}	n	(valid %)
Urban Western Washington	489	(60.3)
Rural Western Washington	184	(22.7)
Central Washington	51	(6.3)
Eastern Washington	64	(7.9)
Out of State	23	(2.8)
Distance traveled to UW Clinic (miles, one way) ^{mileage2}	n	(valid %)
0.0 – 50.9	446	(63.7)
51.0 – 100.9	129	(18.4)
101.0 – 150.9	43	(6.1)
>150.9	83	(11.8)

1. Race is classified hierarchically as follows: (1. Both parents are Caucasian); (2. Mother and/or father are African American); (3. Mother and/or father are Native Alaskan, Native American or Canadian Indian, neither parent is African American); (4. Mother and/or father are Asian, Japanese, Chinese, or Korean, neither parent is African American, Native American, Native Alaskan or Canadian Indian); (5. Either parent is Hispanic, neither parent is from racial categories 2, 3 or 4); (6. Both parents are from racial categories other than categories 1 through 5).
2. 1. (Urban Western Washington: King, Pierce, and Snohomish); 2. (Rural Western Washington: Clallam, Clark, Cowlitz, Grays Harbor, Island, Jefferson, Kitsap, Lewis, Mason, Pacific, San Juan, Skagit, Skamania, Thurston, Wahkiakum, and Whatcom); 3. (Central Washington: Chelan, Douglas, Grant, Kittitas, Klickitat, Okanogan, and Yakima); 4. (Eastern Washington: Adams, Asotin, Benton, Columbia, Ferry, Franklin, Garfield, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, and Whitman).

Table II.2. Concerns reported by caregivers of all 1,374 patients who completed and returned their New Patient Information Form (NPIF) in the first 5 years of this clinic operation (1993-97).

Characteristic				
PATIENT IDENTIFICATION				
Gender				
Female:Male (% female) ⁿ⁸			n:n	(valid %)
			594:780	(43.2)
Race ¹ <small>racekid2</small>				
			n	(valid %)
1. Caucasian			769	(56.3)
2. African American			155	(11.3)
3. Native American, Alaskan or Canadian Native			312	(22.8)
4. Asian			16	(1.2)
5. Hispanic/Mexican			106	(7.8)
6. Other			8	(0.6)
7. Unknown			8	(--)
Age (yrs) of patient at time of NPIF submission <small>NPIFage4</small>				
			n	(valid %)
Birth to 1.0			49	(3.6)
1.1 to 3.0			151	(11.0)
3.1 to 5.0			191	(13.9)
5.1 to 10.0			451	(32.8)
10.1 to 15.0			288	(21.0)
15.1 to 20.0			134	(9.8)
> 20.0			109	(7.9)
Mean <small>NPIFagen</small>	mean	(S.D.)	min. - max.	n
	9.9	(7.9)	0.1 - 55.4	(1373)
Patient's country <small>country</small>				
			n	(valid %)
U.S.A.			1374	(100.0)
Unknown			0	(--)
Patient's state <small>n18</small>				
			n	(valid %)
Washington			1,326	(96.5)
Alaska			10	(0.7)
California			7	(0.5)
Iowa			1	(0.1)
Idaho			12	(0.8)
Illinois			1	(0.1)
Minnesota			1	(0.1)
North Carolina			1	(0.1)
North Dakota			1	(0.1)
Oregon			13	(0.9)
Pennsylvania			1	(0.1)
Unknown			0	(--)

Table II.2. (cont.) Concerns reported by caregivers of all 1,374 patients who completed and returned their New Patient Information Form (NPIF) in the first 5 years of this clinic operation (1993-97).

PATIENT IDENTIFICATION (continued)		
Characteristic	n	(valid %)
Patient's WA State county ⁿ¹⁷		
Adams	1	(0.1)
Benton	18	(1.4)
Chelan	16	(1.2)
Clallum	29	(2.2)
Clark	13	(1.0)
Cowlitz	2	(0.2)
Douglas	6	(0.4)
Franklin	14	(1.1)
Grant	6	(0.4)
Grays Harbor	22	(1.7)
Island	22	(1.7)
Jefferson	7	(0.5)
King	466	(35.2)
Kitsap	60	(4.5)
Kittitas	8	(0.6)
Lewis	32	(2.4)
Mason	21	(1.6)
Okanogan	9	(0.7)
Pacific	2	(0.2)
Pend Oreille	4	(0.3)
Pierce	138	(10.4)
San Juan	2	(0.2)
Skagit	38	(2.9)
Skamania	1	(0.1)
Snohomish	236	(17.8)
Spokane	31	(2.3)
Stevens	6	(0.4)
Thurston	46	(3.5)
Walla Walla	7	(0.5)
Whatcom	20	(1.5)
Whitman	6	(0.4)
Yakima	35	(2.6)
Outside WA	49	(--)
County unknown, but lives in WA state	1	(--)

Table II.2. (cont.) Concerns reported by caregivers of all 1,374 patients who completed and returned their New Patient Information Form (NPIF) in the first 5 years of this clinic operation (1993-97).

Characteristic	n	(valid %)
CAREGIVER IDENTIFICATION		
Primary caregiver of patient ^{n23r}		
Birth mother	227	(16.6)
Birth father	98	(7.1)
Adoptive Parent	301	(22.0)
Foster Parent	401	(29.3)
Other biological family member	215	(15.7)
Self	66	(4.8)
Group home	3	(0.2)
Incarcerated	1	(0.1)
Legal guardian	3	(0.2)
Step parent	1	(0.1)
Case manager	1	(0.1)
Other	53	(3.8)
PERSON COMPLETING THE NPIF		
Relationship to patient ⁿ³⁵		
Birth mother	228	(16.6)
Birth father	67	(4.9)
Adoptive Parent	298	(21.7)
Foster Parent	260	(19.0)
Caseworker/Therapist/Counselor	167	(12.1)
CPS	12	(0.9)
Medical provider	21	(1.5)
Other	319	(23.3)
Person or agency who referred patient to Clinic ^{n37a} (open-ended question) among 1,192 patients		
Alcohol/drug abuse treatment	23	(1.9)
Children's treatment center	49	(4.1)
CPS	18	(1.5)
Family (biological)	8	(0.8)
FAS organization or professional	147	(12.3)
Foster/Adoption agency, staff	17	(1.4)
Foster/Adoptive parent	16	(1.3)
Friend	24	(2.0)
Guardian ad litem	7	(0.6)
Legal system (JRA, criminal court)	16	(1.3)
Literature, TV, book, lecture	64	(5.4)
Medical (clinic, MD, hospital, PHN)	267	(22.5)
Mental health	53	(4.4)

Table II.2. (cont.) Concerns reported by caregivers of all 1,374 patients who completed and returned their New Patient Information Form (NPIF) in the first 5 years of this clinic operation (1993-97).

Characteristic	n	(valid %)
Person or agency who referred patient to Clinic (continued) ^{n37a}		
Native group (IHS, tribe)	28	(2.3)
Psychologist/Counselor/Therapist	59	(4.9)
School	64	(5.4)
Self	28	(2.3)
Social services (state or private)	194	(16.2)
Social worker/Caseworker	61	(5.1)
Other	5	(0.4)
Classification Unknown	46	(3.9)

REASONS FOR DIAGNOSTIC EVALUATION REQUEST

Reason(s) for requesting appointment ⁿ⁴⁸ <i>(open-ended question; can record >1 answer) among 1,260 patients</i>	n	valid %
Alcohol exposure during gestation	164	(13.0)
Conduct disorders, emotional/behavioral problems, anger	579	(45.8)
Depression, low self esteem, low motivation	91	(7.2)
Does not learn from previous experiences, poor memory	117	(9.3)
Drug/alcohol abuse by patient	31	(2.5)
Facial phenotype	138	(10.9)
Growth problems	40	(3.2)
Learning disabilities, problems in school, cognitive delays, mental retardation	400	(31.7)
Legal problems perpetrated by the patient	32	(2.5)
Motor problems, fine or gross	80	(6.3)
Parenting skills of patient in question	9	(0.7)
Patient is pregnant	1	(0.1)
Physical/health problems	122	(9.7)
Placement issues, adoption/foster home, group home	24	(1.9)
Poor judgment, cannot make own decisions, cannot function independently, cannot hold job, cannot understand time/money, no cause and effect	241	(19.1)
Poor self control, impulsiveness, lacks concern for personal safety, absent minded, unpredictable behavior, inflexible, poor adjustment, no internal structure, disorganized	238	(18.8)
Poor social skills, poor bonding, separation anxiety	147	(11.6)
Recommendation by physician or FAS clinic staff	27	(2.1)
Recommendation by professional other than physician (CPS, social worker, etc.)	37	(2.9)
Short attention span, hyperactivity, ADD, ADHD	360	(28.5)
Speech/language problems	99	(7.8)
Other	400	(31.7)

Table II.2. (cont.) Concerns reported by caregivers of all 1,374 patients who completed and returned their New Patient Information Form (NPIF) in the first 5 years of this clinic operation (1993-97).

Characteristic				
REPORTED PHYSICAL APPEARANCE				
Facial photographs submitted ⁿ⁵			n	(valid %)
			907	(68.2)
Patient reportedly born with birth defects <i>among 246 patients, n97</i>			n	(valid %)
			45	(18.3)
Patient reportedly has:			n	(valid %)
Allergies <i>among 245 patients, n99</i>			80	(32.7)
Multiple ear infections <i>among 1,307 patients, n100</i>			889	(68.0)
Chronic sinusitis <i>among 237 patients, n101</i>			49	(20.7)
Chronic hearing loss <i>among 1,298 patients, n102</i>			269	(20.7)
Visual problems (wears glasses) <i>among 1,286 patients, n103</i>			351	(27.3)
Chronic illness of the heart <i>among 234 patients, n104</i>			7	(3.0)
Chronic illness of the kidneys <i>among 1,292 patients, n105</i>			189	(14.6)
Chronic illness of the joints/limbs <i>among 233 patients, n106</i>			14	(6.0)
Chronic illness of the stomach/bowels <i>among 1,272 patients, n107</i>			273	(21.5)
Patient has reportedly had:			n	(valid %)
Operations (since birth) <i>among 255 patients, n108</i>			76	(29.8)
Any other hospitalizations <i>among 246 patients, n115</i>			71	(28.9)
Seizures <i>among 1,313 patients, n128</i>			135	(10.3)
Loss of specific motor skills <i>among 247 patients, n132</i>			32	(13.0)
Bed wetting or soiling after 8 yrs old <i>among 257 patients, n134</i>			31	(12.1)
CT or MRI scan <i>among 260 patients, n137</i>			30	(11.5)
Patient has reportedly been:			n	(valid %)
Physically abused <i>among 1,234 patients, n122</i>			341	(27.6)
Estimated age at onset	mean	(S.D.)	min. - max.	n
	2.6	(3.2)	0.0 - 21.0	310
Sexually abused <i>among 1,247 patients, n125</i>			n	(valid %)
			292	(23.4)
Estimated age at onset	mean	(S.D.)	min. - max.	n
	4.3	(3.6)	0.0 - 21.0	285
REPORTED ATTENTION DEFICIT AND HYPERACTIVITY				
Patient has been evaluated for ADD/ADHD <i>among 257 patients, n139</i>			n	(valid %)
			95	(37.0)
Patient has been diagnosed with ADD/ADHD <i>among 169 patients, n142</i>			n	(valid %)
			72	(42.6)

Table II.2. (cont.) Concerns reported by caregivers of all 1,374 patients who completed and returned their New Patient Information Form (NPIF) in the first 5 years of this clinic operation (1993-97).

Characteristic		
REPORTED MENTAL HEALTH ISSUES		
	n	(valid %)
Patient has been evaluated by psychologist or MH counselor <i>among 259 patients, n164</i>	157	(60.6)
Patient has been evaluated for mood problems <i>among 259 patients, n177</i>	56	(21.6)
REPORTED SCHOOL ISSUES		
Open-ended questions presented to patient/caregiver		
	n	(valid %)
What learning problems does patient have? ⁿ²³⁵ <i>(open-ended question; can record >1 answer) among 889 patients</i>		
Abstract thinking/judgement	16	(1.8)
Academic difficulties	77	(8.7)
Behavioral regulation/sensory motor	52	(5.8)
Global cognitive delays	34	(3.8)
Memory/Learning/Information processing	73	(8.2)
Motor/Oral Motor Control	16	(1.8)
Planning	3	(0.3)
Social Skills	10	(1.1)
Other learning problem	37	(4.2)
Learning problems present, but unspecified	719	(80.9)
What behavioral problems does patient have? ⁿ²³⁶ <i>(open-ended question; can record >1 answer) among 1,130 patients</i>		
Abstract thinking/judgement	16	(1.4)
Behavioral regulation/sensory motor integration	168	(14.9)
DSM IV diagnosis	23	(2.0)
Memory/Learning/Information	15	(1.3)
Planning	2	(0.2)
Social skills	30	(2.7)
Other behavioral problem	78	(6.9)
Behavioral problems present, but unspecified	932	(82.5)

Table II.2. (cont.) Concerns reported by caregivers of all 1,374 patients who completed and returned their New Patient Information Form (NPIF) in the first 5 years of this clinic operation (1993-97).

Characteristic				
REPORTED ALCOHOL CONSUMPTION				
Before pregnancy (one drink = ½ oz. absolute alcohol)	mean	(S.D.)	min. - max.	n
Avg. # drinks per drinking occasion <small>n237</small>	8.9	(9.4)	0.0 - 86.0	(437)
Max. # drinks per drinking occasion <small>n238</small>	12.4	(10.7)	0.0 - 86.0	(399)
Avg. # drinking occasions per week <small>n239</small>	4.5	(4.1)	0.0 - 42.0	(507)
Type of alcohol consumed most often: (<i>can select >1</i>)			n	(valid %)
None <small>n240a</small>			1	(0.1)
Wine <small>n240b</small>			34	(2.5)
Beer <small>n240c</small>			106	(7.7)
Hard liquor <small>n240d</small>			73	(5.3)
Unknown/Not reported <small>n240f</small>			1,237	(90.0)
During pregnancy (one drink = ½ oz. absolute alcohol)	mean	(S.D.)	min. - max.	n
Avg. # drinks per drinking occasion <small>n241</small>	6.9	(7.8)	0.0 - 86.0	(437)
Max. # drinks per drinking occasion <small>n242</small>	9.7	(9.6)	0.0 - 86.0	(395)
Avg. # drinking occasions per week <small>n243</small>	4.0	(4.4)	0.0 - 42.0	(501)
Type of alcohol consumed most often: (<i>can select >1</i>)			n	(valid %)
None <small>n244a</small>			4	(0.3)
Wine <small>n244b</small>			31	(2.3)
Beer <small>n244c</small>			100	(7.3)
Hard liquor <small>n244d</small>			66	(4.8)
Unknown/Not reported <small>n244e</small>			1,246	(90.7)
Trimester(s) when alcohol was reportedly consumed <small>among 190 patients, n245r</small>			n	(valid %)
None			5	(3.6)
1 st only			19	(13.9)
2 nd only			3	(2.2)
3 rd only			5	(3.6)
1 st and 2 nd only			12	(8.8)
2 nd and 3 rd only			3	(2.2)
1 st and 3 rd only			3	(2.2)
1 st , 2 nd and 3 rd			87	(63.5)
Unknown/Not reported			1,237	(--)
Birth mother reportedly diagnosed with alcoholism <small>among 250 patients, n246</small>			n	(valid %)
			129	(51.6)
Birth mother ever reported to have an alcohol problem <small>among 258 patients, n247</small>			181	(70.2)
Birth mother reportedly ever received alcohol treatment <small>among 1,287 patients, n248</small>			647	(50.3)
Use of other substances during pregnancy			n	(valid %)
Drugs <small>among 1,249 patients, n250</small>			723	(57.9)
Tobacco <small>among 1,230 patients, n254</small>			860	(69.9)
Medications <small>among 207 patients, n257</small>			43	(20.8)

Table II.2. (cont.) Concerns reported by caregivers of all 1,374 patients who completed and returned their New Patient Information Form (NPIF) in the first 5 years of this clinic operation (1993-97).

Characteristics				
REPORTED INFORMATION ABOUT THE PATIENT'S BIRTH PARENTS				
Number of unique birth mothers for the 1,374 patients			n	1,122
Birth mother				
	mean	(S.D.)	min. - max.	n
Maternal age (yrs.) at birth of patient ⁿ²⁷⁰	24.7	(6.0)	13.0 - 44.0	(1149)
Maternal race ¹ <i>among 1,087 unique birth mothers, racemom1</i>			n	(valid %)
1. Caucasian ^(aa)			742	(68.3)
2. African American ^(bb, b*, *b)			82	(7.5)
3. Native American, Alaskan/Canadian Native ^(any c,d,e)			206	(19.0)
4. Asian ^(any g,l,m,n)			8	(0.7)
5. Hispanic ^(any f)			44	(4.0)
6. Other ^(all others)			5	(0.5)
7. Unknown ^(zz)			35	(--)
Last year of school completed by birth mother <i>among 753 unique birth mothers, n269</i>			n	(valid %)
Did not complete high school			418	(54.8)
Completed high school			244	(32.0)
Some college			82	(10.7)
College degree			19	(2.5)
Unknown			359	(--)
Maternal history of learning problems <i>among 133 unique birth mothers, n271</i>			n	(valid %)
			69	(51.9)
Birth mother living in WA State at time of NPIF submission <i>among 144 patients, n274</i>			n	(valid %)
			76	(52.8)
Patient's last contact with birthmother <i>among 1,170 patients, n276</i>			n	(valid %)
Current, continuous			355	(30.4)
< 6 months ago			334	(28.5)
7 to 12 months ago			69	(5.9)
>12 months ago			256	(21.9)
Never had contact			156	(13.3)
Number of unique birth fathers for the 1,374 patients			n	1213
Birth Father				
	mean	(S.D.)	min. - max.	n
Paternal age (yrs.) at birth of patient ⁿ²⁸⁴	28.1	(7.4)	14.0 - 66.0	(771)

Table II.2. (cont.) Concerns reported by caregivers of all 1,374 patients who completed and returned their New Patient Information Form (NPIF) in the first 5 years of this clinic operation (1993-97).

Characteristic	n	(valid %)
Paternal race¹ <i>among 995 unique birth fathers, racedad1</i>		
1. Caucasian (aa)	628	(63.1)
2. African American (bb, b*, *b)	105	(10.6)
3. Native American, Alaskan/Canadian Native (bb, b*, *b)	127	(12.7)
4. Asian (any g,l,m,n)	18	(1.8)
5. Hispanic (any f)	104	(10.5)
6. Other (all others)	13	(1.3)
7. Unknown (zz)	217	(--)
Last year of school completed by birth father <i>among 524 unique birth fathers, n283</i>		
Did not complete high school	221	(42.1)
Completed high school	223	(42.6)
Some college	57	(10.9)
College degree	23	(4.4)
Paternal history of learning problems <i>among 87 unique birth fathers, n285r</i>		
	37	(42.5)
Patient's last contact with birth father <i>among 1,000 patients, n286</i>		
Current, continuous	220	(22.0)
< 6 months ago	199	(19.9)
7 to 12 months ago	53	(5.3)
>12 months ago	279	(27.9)
Never had contact	249	(24.9)
Reported medical history of birth mother		
Alcoholism <i>among 984 patients, n287r</i>	746	(75.8)
Birth defects <i>among 954 patients, n288r</i>	36	(3.8)
Stillbirths <i>among 952 patients, n289r</i>	37	(3.9)
Miscarriages <i>among 953 patients, n290r</i>	223	(23.4)
Mental retardation <i>among 950 patients, n291r</i>	43	(4.5)
Other developmental disabilities <i>among 957 patients, n292r</i>	111	(11.6)
Learning disorders <i>among 959 patients, n293r</i>	257	(26.8)
Attention deficit <i>among 950 patients, n294r</i>	113	(11.9)
Hyperactivity <i>among 955 patients, n295r</i>	98	(10.3)
Epilepsy <i>among 957 patients, n296r</i>	36	(3.8)
Neurologic disease <i>among 956 patients, n297r</i>	12	(1.3)
Child abuse <i>among 964 patients, n298r</i>	290	(30.1)
Sexual abuse <i>among 956 patients, n299r</i>	277	(29.0)

Table II.2. (cont.) Concerns reported by caregivers of all 1,374 patients who completed and returned their New Patient Information Form (NPIF) in the first 5 years of this clinic operation (1993-97).

Characteristic	n	(valid %)
Reported medical history of birth mother(continued)		
Depression <i>among 960 patients, n300r</i>	416	(43.3)
Suicidal <i>among 965 patients, n301r</i>	170	(17.6)
Mental illness <i>among 955 patients, n302r</i>	166	(17.4)
Vision problems <i>among 962 patients, n303r</i>	227	(23.6)
Hearing problems <i>among 960 patients, n304r</i>	80	(8.3)
Chronic illnesses <i>among 962 patients, n305r</i>	95	(9.9)
Tourette's Syndrome <i>among 959 patients, n306r</i>	3	(0.3)
Delinquency <i>among 959 patients, n307r</i>	204	(21.2)
Any specific genetic condition <i>among 213 patients, n308r</i>	6	(2.8)

REPORTED PREGNANCIES OF BIRTH MOTHER

	mean	(S.D.)	min. - max.	n
Total reported parity at the time of NPIF submission <i>n402</i>	2.8	(1.8)	1.0 - 12.0	(1,123)
Total reported gravity at the time of NPIF submission <i>n403</i>	3.3	(2.2)	1.0 - 18.0	(1,071)
Reported parity of patient <i>n404</i>	2.6	(1.7)	1.0 - 11.0	(1,115)
Reported gravity of patient <i>n405</i>	3.1	(2.0)	1.0 - 10.0	(196)

PREGNANCY, LABOR, AND DELIVERY HISTORY OF THE PATIENT

Difficulties experienced during pregnancy <i>among 238 patients, n407</i>	n	(valid %)
	61	(25.6)

Complications experienced during labor/delivery <i>among 239 patients, n409</i>	n	(valid %)
	63	(26.4)

Problems experienced while in birth hospital:	n	(valid %)
Feeding <i>among 219 patients, n419</i>	39	(17.8)
Apnea/breathing difficulties <i>among 219 patients, n420</i>	32	(14.6)
Supplemental oxygen required <i>among 219 patients, n421</i>	26	(11.9)
Infections <i>among 215 patients, n422</i>	3	(1.4)
Jaundice <i>among 221 patients, n423</i>	44	(19.9)
Convulsions <i>among 211 patients, n424</i>	5	(2.4)

Method of delivery <i>among 1,239 patients, n411</i>	n	(valid %)
Natural	680	(67.7)
C-section	222	(22.1)
Forceps	102	(10.2)
Unknown	235	(--)

Table II.2. (cont.) Concerns reported by caregivers of all 1,374 patients who completed and returned their New Patient Information Form (NPIF) in the first 5 years of this clinic operation (1993-97).

Characteristic				
REPORTED LIFETIME PLACEMENTS OF PATIENT				
	mean	(S.D.)	min. - max.	n
Number of home placements ⁿ⁴⁵⁶	3.0	(3.0)	0.0 - 40.0	(842)
Number of home placements per year <i>18 years old and younger</i> , ^{n456r}	0.6	(1.0)	0.0 - 18.0	(777)
Age(yr) at first out-of-home placement ⁿ⁴⁵⁷	2.0	(3.1)	0.0 - 18.0	(196)
Age (yr) of last out-of-home placement ⁿ⁴⁵⁸	3.8	(4.0)	0.0 - 19.0	(191)

1. Race is classified hierarchically as follow: (1. Both parents are Caucasian); (2. Mother and/or father are African American); (3. Mother and/or father are Native Alaskan, Native American or Canadian Indian, neither parent is African American); (4. Mother and/or father are Asian, Japanese, Chinese, or Korean, neither parent is African American, Native American, Native Alaskan or Canadian Indian); (5. Either parent is Hispanic, neither parent is from racial categories 2, 3 or 4); (6. Both parents are from racial categories other than categories 1 through 5).

Table II.3. Selected characteristics of the 811 patients seen in the FAS DPN Clinics in the first 5 years of operation (1993-97) whose clinical data is recorded on the FAS DPN Diagnostic Evaluation Form¹.

Characteristic				
Number of patients evaluated	pateval		n	811
Duration of wait (months) to be seen in Clinic	mean	(S.D.)	min. - max.	n
<i>(Clinic is open 4 days per month)</i>	9.0	(8.4)	0.2 - 56.6	(810)
Distance traveled one way (miles) to get to Clinic	78.0	(194.1)	5.0 - 2,950.0	(727)
Person or agency who referred patient to Clinic	among 665 patients, refer2		n	(valid %)
Physician			108	(16.2)
Public Health/Crippled Children			43	(6.5)
Mental Health			25	(3.8)
Hospital			29	(4.3)
School			51	(7.7)
Self/family			22	(3.3)
Legal			21	(3.2)
Social service agency			230	(34.6)
Other community agency			39	(5.8)
Other			97	(14.6)
Reason for referring patient to Clinic as reported by caregiver	among 745 patients, N48		n	(valid %)
<i>(can select >1)</i>				
Alcohol exposure during gestation			94	(12.6)
Conduct disorders, emotional/behavioral problems, anger			364	(48.9)
Depression, low self esteem, low motivation			66	(8.9)
Does not learn from previous experiences, poor memory			76	(10.2)
Drug/Alcohol abuse by patient			16	(2.1)
Facial phenotype			81	(10.0)
Growth problems			31	(4.2)
Learning disabilities, problems in school, cognitive delays, mental retardation			268	(36.0)
Legal problems perpetrated by the patient			23	(3.1)
Motor problems, fine or gross			48	(6.4)
Parenting skills of patient in question			8	(1.1)
Patient is pregnant			1	(0.1)
Physical/Health problems			86	(11.5)
Placement issues, adoption/foster home, group home			17	(2.3)
Poor judgment, cannot make own decisions, cannot function independently, cannot hold job, cannot manage time/money, no cause and effect			151	(20.3)

Table II.3.(cont.) Selected characteristics of the 811 patients seen in the FAS DPN Clinics in the first 5 years of operation (1993-97) whose clinical data is recorded on the FAS DPN Diagnostic Evaluation Form¹.

Characteristic	n	(valid %)
Reason for referring patient to Clinic as reported by caregiver (continued) ^{N48}		
Poor self control, impulsiveness, lacks concern for personal safety, absent minded, unpredictable behavior, inflexible, poor adjustment, no internal structure, disorganized	130	(17.4)
Poor social skills, poor bonding, separation anxiety	95	(12.8)
Recommendation by physician or FAS clinic staff	17	(2.3)
Recommendation by professional other than physician (CPS, social worker, etc.)	19	(2.6)
Short attention span, hyperactivity, ADD, ADHD	223	(29.9)
Speech/language problems	60	(8.1)
Other	205	(27.5)
Total yearly family income <i>among 557 patients, income</i>	n	(valid %)
< \$5,000	57	(10.2)
\$5,000 to \$9,999	82	(14.8)
\$10,000 to \$14,999	47	(8.4)
\$15,000 to \$19,999	40	(7.2)
\$20,000 to \$24,999	50	(9.0)
\$25,000 to \$29,999	37	(6.6)
\$30,000 to \$34,999	46	(8.3)
≥ \$35,000	198	(35.5)
Some portion of family income comes from welfare, public assistance, or SSI <i>among 595 patients, welfare</i>	n	(valid %)
	273	(45.9)

1. Astley & Clarren, Diagnostic Guide for FAS and Related Conditions, 1997. (Appendix A)

Tables II.4 through II.10 are stratified by diagnostic outcome as presented in the Diagnostic Guide for FAS and Related Conditions: the 4-Digit Code (Astley & Clarren, 1998). There are 256 possible 4-Digit codes that fall into one of 22 unique clinical diagnostic categories labeled A through V. For the purposes of this report these 22 categories are collapsed into four groups: 1) FAS: diagnostic categories A, B; 2) AFAS: diagnostic category C; 3) Affected, Alcohol Exposed: diagnostic categories E-I; and 4) Other: diagnostic categories D, J-V.). The 4-Digit Diagnostic Code system and nomenclature is described briefly below.

What are the 4 Digits?

The four digits reflect the magnitude of expression of four key diagnostic features of FAS in the following order: (1) growth deficiency, (2) the FAS facial phenotype, (3) brain dysfunction, and (4) gestational alcohol exposure. The 4-Digit Diagnostic Code is generated at the completion of the diagnostic evaluation using information recorded on the FAS Diagnostic Evaluation Form. The code is created by filling in the grid below which appears on page one of the Diagnostic Form.

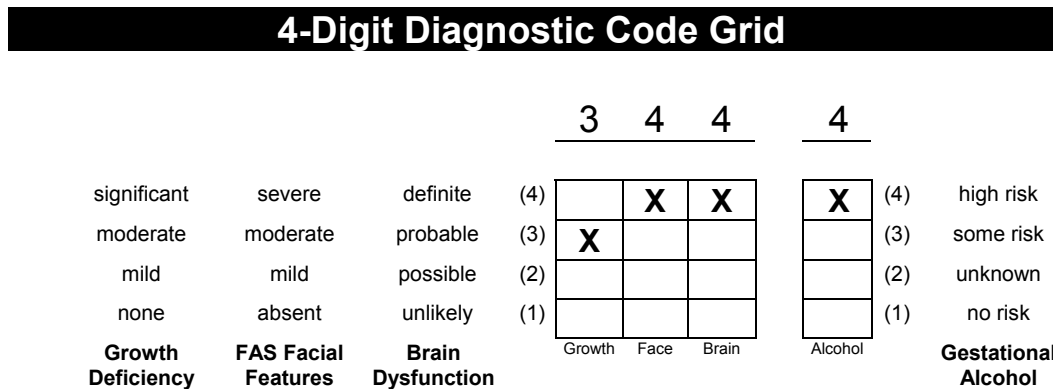


Figure 1. 4-Digit Diagnostic Code grid. This grid is filled in to illustrate how the Diagnostic Code 3444 is derived. This code is one of eight which qualifies as a diagnosis of FAS.

How are the 4 Digits ranked?

The magnitude of expression of each feature is ranked independently on a 4-point Likert scale with 1 reflecting complete absence of the FAS feature and 4 reflecting a strong "classic" presence of the FAS feature. Specific guidelines for ranking the magnitude of each of the FAS features are presented in Section III.B.

How many 4-Digit Diagnostic Codes are there?

There are 256 possible 4-Digit Diagnostic Codes ranging from 1111 to 4444. The 256 codes and their corresponding clinical names are listed in numerical order in Section VI.

We have created diagnostic categories for all potential codes, even though to date we do not expect to see all of these situations in clinic. For example, 1111 reflects a normal exam in an individual who was definitely not exposed to alcohol. Such patients are seen by primary physicians daily, but are unlikely to be referred to an FAS clinic. Other codes like 4441 would represent a "classic" clinical presentation of FAS with a confirmed absence of alcohol exposure during gestation. We have never seen such a case (or phenocopy), but we may some day.

How many different Clinical Diagnostic Categories are there?

Each 4-Digit Diagnostic Code falls into one of 22 unique Clinical Diagnostic Categories (labeled A through V). A list of the 22 Diagnostic Categories is presented below.

Category	Name
A	Fetal alcohol syndrome (alcohol exposed)
B	Fetal alcohol syndrome (alcohol exposure unknown)
C	Atypical fetal alcohol syndrome (alcohol exposed)
D	Fetal alcohol syndrome phenocopy (no alcohol exposure)
E	Sentinel physical findings / static encephalopathy (alcohol exposed)
F	Static encephalopathy (alcohol exposed)
G	Sentinel physical findings / neurobehavioral disorder (alcohol exposed)
H	Neurobehavioral disorder (alcohol exposed)
I	Sentinel physical findings (alcohol exposed)
J	No cognitive/behavioral or sentinel physical findings detected (alcohol exposed)
K	Sentinel physical findings / static encephalopathy (alcohol exposure unknown)
L	Static encephalopathy (alcohol exposure unknown)
M	Sentinel physical findings / neurobehavioral disorder (alcohol exposure unknown)
N	Neurobehavioral disorder (alcohol exposure unknown)
O	Sentinel physical findings (alcohol exposure unknown)
P	No cognitive/behavioral or sentinel physical findings detected (alcohol exposure unknown)
Q	Sentinel physical findings / static encephalopathy (no alcohol exposure)
R	Static encephalopathy (no alcohol exposure)
S	Sentinel physical findings / neurobehavioral disorder (no alcohol exposure)
T	Neurobehavioral disorder (no alcohol exposure)
U	Sentinel physical findings (no alcohol exposure)

What are the names of the Clinical Diagnostic Categories?

A series of terms are used in varying combinations to name the 22 diagnostic categories. They include:

- Sentinel Physical Findings:

The adjective "*sentinel*" refers to key physical findings that, in combination, are highly sensitive and specific to in utero alcohol exposure. These include a unique cluster of minor facial anomalies (short palpebral fissures, thin upper lip and a smooth philtrum) and growth deficiency. These

sentinel features serve as necessary and sufficient criteria for establishment of the physical component of an FAS diagnosis. Other physical findings may be detected instead of or in addition to the sentinel findings which may suggest alternate or additional conditions. The findings may also present as isolated features which may or may not be caused by in utero alcohol. There are places on the Diagnostic Evaluation Form to record and interpret other physical findings.

- **Static Encephalopathy:**

The term "*encephalopathy*" refers to any physical abnormality in the brain. Such abnormalities can vary in magnitude from structural defects that are apparent on an image like a CT scan to micro-cellular abnormalities that can only be confirmed with tissue samples or neurochemical analysis. The term "*static*" means that the physical abnormality in the brain is unchanging, neither progressing or regressing. The term "*static encephalopathy*" is used in this diagnostic system when the patient presents with cognitive/behavioral dysfunction which is accompanied by structural, neurologic, and/or psychometric measures which strongly support the presence of structural brain abnormalities. The term does not define or suggest any specific pattern of structural abnormality or cognitive/behavioral dysfunction.

- **Neurobehavioral Disorder:**

This term is used in this diagnostic system when the patient presents with cognitive/behavioral dysfunction, but structural, neurologic and psychometric measures do not unequivocally support the presence of structural brain abnormalities. Reasonably specific conditions like attention deficit disorder and dyslexia, for example could be referred to as neurobehavioral disorders.

- **Alcohol (Exposed, Not Exposed, Exposure Unknown):**

This term is used to reflect the exposure status of the fetus. It is not to be used to link alcohol exposure to outcome.

- **Fetal Alcohol Syndrome (FAS):**

The term FAS is used to refer to patients who present with the full compliment of sentinel physical findings, static encephalopathy and were alcohol exposed. The following 4-Digit Codes are classified as FAS (3433, 3434, 3443, 3444, 4433, 4434, 4443 and 4444). The term FAS is also used when the facial phenotype, growth deficiency and CNS dysfunction are classically expressed, but alcohol exposure is unknown. This condition is reflected in the following 4-Digit Codes (3432, 3443, 4432 and 4442).

- **Atypical Fetal Alcohol Syndrome (AFAS):**

This term is introduced for use with a relatively small group of patients who have static encephalopathy, most of the sentinel physical findings, and were alcohol exposed. The primary contrast between FAS and AFAS is the absence of growth deficiency. Given the fact that variable presentation is the rule rather than the exception after teratogenic exposure in gestation, we felt it was appropriate to establish this marginal category. The following 4-Digit Codes are classified as AFAS (1443, 2443, 1434, 1444, 2434, 2444, 3334, 3344, 4334, and 4344).

The names assigned to each diagnostic category reflect the patient's clinical outcome and alcohol exposure. The names are listed in Sections IV and V. The first three categories (A through C) meet the criteria for a clinical diagnosis of FAS and are named as such. The fourth category (D) applies to the patient who presents with all of the features of FAS, but has a confirmed *absence* of gestational alcohol exposure. This category is referred to as an FAS Phenocopy and has yet to be observed.

The remaining 19 categories (E through V) do not meet the minimum criteria for FAS and are subsequently named to reflect the Likert ranking of each digit in the 4-Digit Diagnostic Code. For example, a code of 4342 is the Diagnostic Category called "*sentinel physical findings / static encephalopathy (alcohol exposure unknown)*". Many of these patients might have previously been referred to variably as having possible fetal alcohol effects (PFAE), alcohol related birth defects (ARBD), or alcohol related neurodevelopmental disorder (ARND). This new nomenclature supersedes all of these terms.

The following nomenclature pattern is used:

- Growth deficiency and facial characteristics are physical features. When either feature receives a rank of 3 or 4, the patient is referred to as having a *sentinel physical finding*.
- When brain dysfunction receives a rank of 2, the condition is referred as a *neurobehavioral disorder*. When brain dysfunction receives a rank of 3 or 4, the condition is referred to as *static encephalopathy*
- When alcohol exposure receives a rank of 1, there is a *confirmed absence of gestational alcohol exposure*. When alcohol exposure receives a rank of 2, *alcohol exposure is unknown*. When alcohol exposure receives a rank of 3 or 4, *gestational alcohol exposure is confirmed*.

Which new Diagnostic Categories represent the category we use to call FAE?

Diagnostic Categories E through I would have previously been referred to as "fetal alcohol effects", "alcohol related birth defects" or "alcohol related neurobehavioral disorder". Categories J through V are new categories which describe a large number of patient groups who have never been adequately classified or described in the past.

How are lip thinness and philtrum smoothness measured?

A 5-point Likert pictorial scale (Figure 1) is used to measure lip thinness and philtrum smoothness. Upper lip thinness can also be measured quantitatively (circularity) using a computer and scanned images.





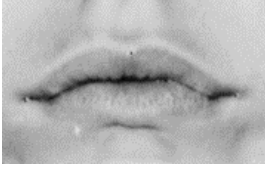
Philtrum/Upper Lip	Philtrum/Upper Lip Likert Scale	Upper Lip Circularity*	ABC Scale
	5	179	C
	4	72	C
	3	55	B
	2	50	A
	1	45	A

Figure 1. Pictorial examples of the 5-point Likert scales and the ABC scale used to rank upper lip thinness and philtrum smoothness. *Circularity is a quantitative measure of upper lip thinness (perimeter²/area). The thinner the upper lip, the greater the circularity.

II. Identification of FAS

Primary Prevention of FAS: Targeting Women at High Risk

Table II.4. Sociodemographic characteristics of the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
	mean (S.D.) min. - max.	(S.D.) (12.4) 0.3 - 50.6	mean (S.D.) min. - max.	(S.D.) (5.4) 1.5 - 22.3	mean (S.D.) min. - max.	(S.D.) (6.7) 0.6 - 50.9	mean (S.D.) min. - max.	(S.D.) (8.8) 0.2 - 46.3
Age (yrs.) at time of diagnostic evaluation ^{DFc17}	10.2	(12.4)	8.9	(5.4)	10.0	(6.7)	10.9	(8.8)
min. - max.	0.3 - 50.6		1.5 - 22.3		0.6 - 50.9		0.2 - 46.3	
Race ² _{raceid2}	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
1. Caucasian	12	(66.7)	14	(66.7)	310	(55.5)	122	(57.6)
2. African American	1	(5.6)	2	(9.5)	56	(10.0)	19	(9.0)
3. Native American/Alaskan/Canadian Native	4	(22.1)	4	(19.0)	141	(25.2)	45	(21.2)
4. Asian	0	(0.0)	1	(4.8)	6	(1.1)	2	(0.9)
5. Hispanic	1	(5.6)	0	(0.0)	41	(7.3)	24	(11.3)
6. Other	0	(0.0)	0	(0.0)	5	(0.9)	0	(0.0)
Gender ^{DF111}	n:n	(valid %)	n:n	(valid %)	n:n	(valid %)	n:n	(valid %)
Female:Male (% female)	6:12	(33.3)	7:14	(33.3)	233:326	(41.7)	102:111	(47.9)
Patient previously diagnosed with FAS ^{faspatnt}	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
yes	0	(0.0)	1	(4.8)	4	(0.7)	0	(0.0)
suspected	1	(5.6)	0	(0.0)	3	(0.6)	0	(0.0)
no documentation of previous diagnosis	17	(94.4)	20	(95.2)	550	(98.7)	213	(100.0)
Patient previously diagnosed with FAE ^{faepatnt}	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
yes	0	(0.0)	0	(0.0)	1	(0.2)	0	(0.0)
suspected	0	(0.0)	0	(0.0)	2	(0.4)	1	(0.5)
no documentation of previous diagnosis	18	(100.0)	21	(100.0)	554	(99.4)	212	(99.5)

II. Identification of FAS

Table II.4 (cont.). Sociodemographic characteristics of the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Patient has sibling(s) previously diagnosed with FAS ^{fassib}								
yes	1	(5.6)	2	(9.5)	20	(3.6)	6	(2.8)
suspected	0	(0.0)	0	(0.0)	2	(0.4)	0	(0.0)
unknown	17	(94.4)	19	(90.5)	535	(96.0)	207	(97.2)
Patient has sibling(s) previously diagnosed with FAE								
yes	0	(0.0)	1	(4.8)	12	(2.2)	3	(1.4)
suspected	0	(0.0)	0	(0.0)	3	(0.5)	0	(0.0)
unknown	18	(100.0)	20	(95.2)	542	(97.3)	210	(98.6)
Primary caregiver at time of diagnosis ^{n23r}								
Birth mother	5	(27.8)	5	(23.8)	119	(21.3)	24	(11.3)
Birth father	0	(0.0)	2	(9.5)	53	(9.5)	13	(6.1)
Foster care	6	(33.2)	5	(23.8)	164	(29.3)	73	(34.3)
Adoptive care	3	(16.7)	2	(9.5)	104	(18.6)	55	(25.8)
Other biological family member	2	(11.1)	5	(23.8)	80	(14.3)	27	(12.7)
Self	1	(5.6)	0	(0.0)	17	(3.0)	13	(6.1)
Group home	0	(0.0)	0	(0.0)	1	(0.2)	0	(0.0)
Incarcerated	0	(0.0)	0	(0.0)	0	(0.2)	0	(0.0)
Other	1	(5.6)	2	(9.5)	20	(3.6)	8	(3.8)

II. Identification of FAS

Table II.4 (cont.). Sociodemographic characteristics of the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Accompanied patient to Clinic ^{DF110F}								
Birth mother	4	(22.2)	4	(19.0)	132	(23.7)	32	(15.1)
Birth father	1	(5.6)	2	(9.5)	50	(9.0)	11	(5.2)
Other family member	2	(11.1)	3	(14.3)	84	(15.0)	26	(12.3)
Foster parent	6	(33.3)	3	(14.3)	125	(22.4)	53	(25.0)
Adoptive parent	5	(27.8)	6	(28.6)	104	(18.6)	69	(32.5)
Step parent	0	(0.0)	1	(4.8)	2	(0.4)	1	(0.5)
Caseworker/Social worker	0	(0.0)	0	(0.0)	14	(2.5)	7	(3.3)
Other/None	0	(0.0)	2	(9.5)	47	(8.4)	13	(6.1)

1. Astley & Clarren, Diagnostic Guide for FAS and Related Conditions, 1997; 2. See Table I.2 footnote for description of racial categories.

II. Identification of FAS

Primary Prevention of FAS: Targeting Women at High Risk

Table II.5. Growth profile of the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. AB (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
4-Digit Diagnostic Rank¹ for Growth Deficiency_{growth1}								
Rank 4, Significant	13	(72.2)	5	(23.8)	27	(4.8)	9	(4.2)
Rank 3, Moderate	5	(27.8)	3	(14.3)	26	(4.7)	4	(1.9)
Rank 2, Mild	0	(0.0)	4	(19.0)	53	(9.5)	15	(7.1)
Rank 1, None	0	(0.0)	9	(42.9)	453	(81.0)	184	(86.8)
ABC-Score¹ for Growth Deficiency_{DF144}								
CC	12	(70.6)	5	(23.8)	26	(4.7)	9	(4.3)
CB	5	(29.4)	2	(9.5)	17	(3.0)	4	(1.9)
CA	0	(0.0)	1	(4.8)	22	(3.9)	9	(4.3)
BC	0	(0.0)	1	(4.8)	9	(1.6)	0	(0.0)
BB	0	(0.0)	1	(4.8)	24	(4.3)	4	(1.9)
BA	0	(0.0)	2	(9.5)	55	(9.9)	14	(6.6)
AC	0	(0.0)	2	(9.5)	7	(1.3)	2	(1.0)
AB	0	(0.0)	2	(9.5)	17	(3.0)	9	(4.3)
AA	0	(0.0)	5	(23.8)	381	(68.3)	159	(75.7)
Birth	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)
Weight centile ² for gestational age _{DF118}	24.6	(29.8) n = 12	24.0	(24.0) n = 15	50.7	(32.0) n = 334	50.0	(30.2) n = 109
Length centile ² for gestational age _{DF120}	19.2	(35.8) n = 10	27.1	(29.7) n = 13	59.6	(33.2) n = 251	63.3	(30.2) n = 88
Gestational age (weeks) _{DF121}	34.5	(4.0) n = 13	36.5	(3.9) n = 16	37.1	(3.5) n = 363	37.6	(2.8) n = 111

II. Identification of FAS

Table II.5 (cont.). Growth profile of the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. AB (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)
At time of Diagnostic Exam								
Height centile ³ _{DF139}	3.2	(4.7) n = 16	21.3	(20.6) n = 21	39.6	(30.0) n = 558	39.3	(28.1) n = 209
Weight centile ³ _{DF137}	8.4	(19.7) n = 18	28.9	(27.2) n = 21	51.1	(31.2) n = 556	54.5	(29.6) n = 208

1. Astley & Clarren, Diagnostic Guide for FAS and Related Conditions, 1997.

2. Hall JG, Froster-Iskenius UG, Allanson JE. Handbook of Normal Physical Measurements. Oxford University Press, pp. 504, 1989.

3. Ross Laboratories, 1992, 1994.

II. Identification of FAS

Primary Prevention of FAS: Targeting Women at High Risk

Table II.6. Facial characteristics of the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)
Facial D-score ² corresponding to the 4-digit face rank	2.5	(0.8)	1.8	(1.2)	-1.2	(1.6)	-1.4	(1.6)
Facial D-score ² > 0.8 _{df220_8} (D-score > 0.8 = screen positive for FAS facial phenotype)	n 18	(valid %) (100.0)	n 17	(valid %) (81.0)	n 72	(valid %) (13.0)	n 20	(valid %) (9.8)
Presentation of FAS Facial Features:								
4-Digit Diagnostic Rank ¹ _{face2}	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Rank 4, Severe	18	(100.0)	13	(61.9)	25	(4.5)	8	(3.8)
Rank 3, Moderate	0	(0.0)	8	(38.1)	61	(10.9)	16	(7.6)
Rank 2, Mild	0	(0.0)	0	(0.0)	367	(65.6)	123	(58.6)
Rank 1, Absent	0	(0.0)	0	(0.0)	106	(19.0)	63	(30.0)
Palpebral fissure length z-score _{for largest palebral fissure, DF22}	mean -4.5	(S.D.) (1.6)	mean -3.8	(S.D.) (1.4)	mean -2.6	(S.D.) (1.6)	mean -2.3	(S.D.) (1.7)
Inner canthal distance z-score _{among 780 patients, DF26}	-0.4	(0.9)	-0.5	(1.5)	-0.05	(1.2)	-0.03	(1.3)
Largest palpebral fissure length/inner canthal distance _{DFC216}	78%	(8.4%)	81%	(12.8%)	84%	(11.2%)	85%	(11.4%)
Philtrum ¹ _{DF217}	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Rank 5, Smooth	13	(72.2)	10	(47.6)	23	(4.1)	9	(4.2)
Rank 4	5	(27.8)	8	(38.1)	56	(10.0)	13	(6.2)
Rank 3, Intermediate	0	(0.0)	3	(14.3)	119	(21.3)	42	(19.8)
Rank 2	0	(0.0)	0	(0.0)	133	(23.8)	50	(23.6)
Rank 1, Deeply grooved	0	(0.0)	0	(0.0)	228	(40.8)	98	(46.2)

II. Identification of FAS

Primary Prevention of FAS: Targeting Women at High Risk

Table II.6 (cont.). Facial characteristics of the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Upper lip ¹ (vermilion border) <small>DF218</small>								
Rank 5, Very thin	13	(72.2)	11	(52.4)	62	(11.1)	25	(11.8)
Rank 4	5	(27.8)	5	(23.8)	125	(22.4)	26	(12.3)
Rank 3, Intermediate	0	(0.0)	5	(23.8)	126	(22.5)	51	(24.0)
Rank 2	0	(0.0)	0	(0.0)	76	(13.6)	35	(16.5)
Rank 1, Very thick	0	(0.0)	0	(0.0)	170	(30.4)	75	(35.4)
Upper lip circularity ¹ (perimeter squared/area)	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)
<i>(Among patients with facial photographs. The larger the circularity, the thinner the lip. This computerized method of measuring lip thinness is described in Figure 1, Section II.)</i>	111.81	(45.3) n = 9	76.6	(32.3) n = 10	64.5	(23.5) n = 352	60.6	(19.5) n = 116
Nose/midface ratio <i>(pending measurement)</i>	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)
	—	()	—	()	—	()	—	()
Abnormal palatal shape <small>df233abz</small>	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Yes	3	(16.7)	3	(14.3)	33	(5.9)	9	(4.2)
<i>The following variables were measured from photographs (when available):</i>								
Clown eyebrows <small>clown</small>	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Rank 5, Definitely present	0	(0.0)	0	(0.0)	3	(1.0)	0	(0.0)
Rank 4	1	(7.7)	0	(0.0)	4	(1.3)	3	(3.7)
Rank 3, Mildly present	3	(23.1)	2	(16.7)	14	(4.6)	6	(7.3)
Rank 2	6	(46.1)	3	(25.0)	76	(25.1)	23	(28.0)
Rank 1, Not present	2	(15.4)	6	(50.0)	184	(60.7)	47	(57.3)
Unknown	1	(7.7)	1	(8.3)	22	(7.3)	3	(3.7)

II. Identification of FAS

Table II.6 (cont.). Facial characteristics of the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Epicanthal folds <small>epicanth</small>								
Rank 5, Definitely present	0	(0.0)	1	(8.3)	14	(4.5)	1	(1.3)
Rank 4	0	(0.0)	0	(0.0)	12	(4.0)	2	(2.4)
Rank 3, Mildly present	1	(7.7)	0	(0.0)	25	(8.3)	11	(13.4)
Rank 2	5	(38.5)	3	(25.0)	36	(11.9)	12	(14.6)
Rank 1, Not present	7	(53.8)	8	(66.7)	210	(69.3)	56	(68.3)
Unknown	0	(0.0)	0	(0.0)	6	(2.0)	0	(0.0)
Ptosis <small>ptosis</small>								
Rank 5, Definitely present	0	(0.0)	0	(0.0)	2	(0.7)	0	(0.0)
Rank 4	0	(0.0)	1	(8.3)	4	(1.3)	1	(1.2)
Rank 3, Mildly present	4	(30.7)	1	(8.3)	34	(11.2)	7	(8.6)
Rank 2	2	(15.4)	1	(8.3)	57	(18.8)	21	(25.6)
Rank 1, Not present	6	(46.2)	9	(75.1)	195	(64.4)	51	(62.2)
Unknown	1	(7.7)	0	(0.0)	11	(3.6)	2	(2.4)
Flat midface <small>flatface</small>								
Rank 5, Definitely present	0	(0.0)	2	(18.2)	25	(9.2)	6	(8.1)
Rank 4	2	(18.1)	1	(9.0)	48	(17.7)	10	(13.5)
Rank 3, Mildly present	4	(36.4)	3	(27.3)	58	(21.4)	16	(21.7)
Rank 2	2	(18.2)	3	(27.3)	43	(15.9)	6	(8.1)
Rank 1, Not present	3	(27.3)	2	(18.2)	78	(28.8)	32	(43.2)
Unknown	0	(0.0)	0	(0.0)	19	(7.0)	4	(5.4)
Flat nasal bridge <small>flatnbri</small>								
Rank 5, Definitely present	2	(15.4)	0	(0.0)	1	(0.3)	0	(0.0)
Rank 4	0	(0.0)	0	(0.0)	7	(2.3)	2	(2.4)
Rank 3, Mildly present	2	(15.4)	3	(25.0)	39	(12.9)	14	(17.1)
Rank 2	5	(38.4)	1	(8.3)	92	(30.4)	25	(30.5)
Rank 1, Not present	4	(30.8)	8	(66.7)	160	(52.8)	41	(50.0)
Unknown	0	(0.0)	0	(0.0)	4	(1.3)	0	(0.0)

1. Astley & Clarren, Diagnostic Guide for FAS and Related Conditions, 1997

2. Astley & Clarren, A case definition and photographic screening tool for the facial phenotype of FAS, J. Pediatrics 1996; 129: 33-41.

3. Hall et al. Handbook of Normal Physical Measurements, Oxford University Press, 1989

II. Identification of FAS

Table II.7. Other physical anomalies of the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
<i>Additional physical anomalies</i> ^{DF233a} (based on direct clinic evaluation)								
Head / Neck								
Hair (e.g., hair whorl unusual)	1	(5.6)	0	(0.0)	13	(2.3)	4	(1.9)
Cranium(shape, synostosis)	0	(0.0)	1	(4.8)	27	(4.8)	10	(4.7)
Hydrocephalus	0	(0.0)	1	(4.8)	1	(0.2)	0	(0.0)
Eyebrow (other than clown eyebrows)	1	(5.6)	0	(0.0)	2	(0.4)	1	(0.5)
Eye (other than ptosis or epicanthal folds)	2	(11.1)	4	(19.0)	34	(6.1)	11	(5.2)
Nose (other than short)	0	(0.0)	0	(0.0)	14	(2.5)	3	(1.4)
Philtrum (other than smooth)	0	(0.0)	0	(0.0)	3	(0.5)	0	(0.0)
Dental (e.g., mal occlusion)	2	(11.1)	2	(9.5)	29	(5.2)	10	(4.7)
Micrognathia	0	(0.0)	0	(0.0)	17	(3.0)	5	(2.3)
Jaw (other than micrognathia)	0	(0.0)	0	(0.0)	6	(1.1)	0	(0.0)
Facial (other than those reported above)	0	(0.0)	0	(0.0)	7	(1.3)	3	(1.4)
Ear	1	(5.6)	1	(4.8)	37	(6.6)	10	(4.7)
Neck	0	(0.0)	0	(0.0)	1	(0.2)	2	(0.9)

II. Identification of FAS

Primary Prevention of FAS: Targeting Women at High Risk

Table II.7.(cont.) Other physical anomalies of the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Additional physical anomalies (continued) ^{DF233a}								
Hands / Feet								
Palmar crease								
Hockey stick palmar crease	3	(16.7)	2	(9.5)	87	(15.6)	29	(13.6)
Transverse palmar crease	0	(0.0)	0	(0.0)	14	(2.5)	0	(0.0)
Other	0	(0.0)	0	(0.0)	7	(1.3)	0	(0.0)
Digital anomalies (e.g. clinodactyly)	1	(5.6)	1	(4.8)	91	(16.3)	26	(12.2)
Nail	0	(0.0)	0	(0.0)	4	(0.7)	1	(0.5)
Feet (e.g. club foot)	0	(0.0)	1	(4.8)	9	(1.6)	8	(3.8)
Limbs								
Arm	0	(0.0)	0	(0.0)	2	(0.4)	0	(0.0)
Leg (including hip dislocation)	0	(0.0)	1	(4.8)	7	(1.3)	0	(0.0)
Torso								
Heart	0	(0.0)	1	(4.8)	33	(5.9)	4	(1.9)
Pectus excavatum or carinatum	0	(0.0)	0	(0.0)	9	(1.6)	4	(1.9)
Rib	1	(5.6)	0	(0.0)	1	(0.2)	0	(0.0)
Spinal (e.g., meningomyelocele, scoliosis)	1	(5.6)	1	(4.8)	9	(1.6)	5	(2.3)
Intestinal/bowel	1	(5.6)	0	(0.0)	3	(0.5)	1	(0.5)
Renal	1	(5.6)	1	(4.8)	5	(0.9)	1	(0.5)
Genital	1	(5.6)	1	(4.8)	3	(0.5)	2	(0.9)

II. Identification of FAS

Table II.7.(cont.) Other physical anomalies of the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Additional physical anomalies (continued) ^{DF233a}								
Other								
Birth marks/moles	0	(0.0)	0	(0.0)	0	(0.0)	1	(0.5)
Hemangioma	0	(0.0)	1	(4.8)	1	(0.2)	2	(0.9)
Hirsutism (abnormal hairiness)	0	(0.0)	0	(0.0)	4	(0.7)	0	(0.0)
Skin	1	(5.6)	0	(0.0)	6	(1.1)	0	(0.0)
Skin tag	0	(0.0)	0	(0.0)	1	(0.2)	0	(0.0)
Thyroid	0	(0.0)	0	(0.0)	2	(0.4)	0	(0.0)
Umbilical	0	(0.0)	0	(0.0)	1	(0.2)	1	(0.5)
None reported	3	(16.7)	6	(28.6)	189	(33.8)	93	(43.7)
Other	0	(0.0)	2	(9.5)	34	(6.1)	6	(2.8)

1. Astley & Clarren, Diagnostic Guide for FAS and Related Conditions, 1997.

II. Identification of FAS

Table II.8. Evidence of CNS dysfunction among the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)	AFAS Diag. Cat. C (n = 21)	Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)	All Others Diag. Cat. D, J-V (n = 213)
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Summary

4-Digit Diagnostic Rank of CNS dysfunction ¹ <small>brain3</small>	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Rank 4, Definite	14	(77.8)	13	(61.9)	100	(17.9)	22	(10.4)
Rank 3, Probable	4	(22.2)	8	(38.1)	99	(17.7)	24	(11.4)
Rank 2, Possible	0	(0.0)	0	(0.0)	347	(62.1)	87	(41.2)
Rank 1, Unlikely	0	(0.0)	0	(0.0)	13	(2.3)	78	(37.0)

Structural

	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)
OFC (centile) <small>DF33</small>	11.2	(18.0)	23.3	(31.5)	48.3	(28.1)	50.1	(25.3)
		n = 18		n = 21		n = 557		n = 208
Structural anomalies on CT/MRI <small>DF35</small>	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Yes	0	(0.0)	1	(33.3)	9	(33.3)	1	(16.7)
No	1	(100.0)	2	(66.7)	18	(66.7)	5	(83.3)
No CT/MRI obtained	17	(--)	18	(--)	531	(--)	207	(--)

II. Identification of FAS

Primary Prevention of FAS: Targeting Women at High Risk

Table II.8 (cont.). Evidence of CNS dysfunction among the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
Neurologic¹								
Seizure(s) reported ¹ DF39	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Yes, disorder	2	(11.1)	1	(4.8)	28	(5.1)	6	(2.9)
Yes, febrile	0	(0.0)	2	(9.5)	27	(4.9)	7	(3.3)
No	16	(88.9)	18	(85.7)	494	(90.0)	197	(93.8)
Unknown	0	(--)	0	(--)	9	(--)	3	(--)
Gross motor dysfunction ¹ DF312	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Yes, severe	2	(11.7)	4	(20.0)	31	(5.9)	3	(1.5)
Yes, mild	1	(5.9)	3	(15.0)	48	(9.1)	6	(3.0)
None	14	(82.4)	13	(65.0)	447	(85.0)	190	(95.5)
Unknown	0	(--)	1	(--)	30	(--)	13	(--)
Fine motor dysfunction ¹ DF314	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Yes, severe	2	(11.8)	6	(30.0)	38	(7.2)	2	(1.0)
Yes, mild	2	(11.8)	1	(5.0)	46	(8.7)	6	(3.0)
None	13	(76.4)	13	(65.0)	443	(84.1)	191	(96.0)
Unknown	0	(--)	1	(--)	29	(--)	13	(--)
Other neurologic signs ¹ DF318	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Yes, severe	0	(0.0)	3	(14.3)	39	(7.4)	8	(3.9)
Yes, mild	7	(43.7)	1	(4.7)	71	(13.4)	17	(8.3)
No	9	(56.3)	17	(81.0)	420	(79.2)	181	(87.8)
Unknown	1	(--)	0	(--)	27	(--)	6	(--)
Quick Neurologic Screening Test score DF317	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)
(20-49 = borderline, >=50 = clinical)	54.0	(0.0)	--	(--)	32.1	(17.1)	25.4	(13.3)
		n = 1		n = 0		n = 71		n = 19

II. Identification of FAS

Primary Prevention of FAS: Targeting Women at High Risk

Table II.8 (cont.). Evidence of CNS dysfunction among the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)
Functional (“Objective Indicators”)¹								
Intellectual								
Full Scale IQ _{DF323}	81.5	(14.5) n = 6	68.2	(11.6) n = 13	85.2	(15.7) n = 235	85.8	(16.4) n = 80
Performance IQ _{DF325}	77.7	(12.9) n = 6	70.8	(13.2) n = 10	88.4	(16.9) n = 174	88.9	(17.6) n = 61
Verbal IQ _{DF324}	84.0	(25.6) n = 5	72.5	(13.1) n = 10	84.2	(15.3) n = 171	85.3	(13.7) n = 61
Likert Ranking ¹ _{DF320}	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Severely abnormal	3	(42.9)	9	(69.2)	45	(17.3)	18	(19.4)
Mildly abnormal	3	(42.9)	3	(23.1)	86	(33.1)	24	(25.8)
Normal	1	(14.2)	1	(7.7)	129	(49.6)	51	(54.8)
Unable to judge	11	(--)	8	(--)	298	(--)	120	(--)
Achievement¹ _{DF353}	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Severely abnormal	2	(40.0)	5	(45.5)	82	(36.9)	23	(31.1)
Mildly abnormal	2	(40.0)	4	(36.4)	76	(34.3)	26	(35.1)
Normal	1	(20.0)	2	(18.1)	64	(28.8)	25	(33.8)
Unable to judge	12	(--)	10	(--)	334	(--)	138	(--)

II. Identification of FAS

Primary Prevention of FAS: Targeting Women at High Risk

Table II.8 (cont.). Evidence of CNS dysfunction among the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
Functional (“Objective Indicators”) continued								
Adaptation ¹ _{DF367}	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Severely abnormal	0	(0.0)	4	(100.0)	52	(52.0)	13	(61.9)
Mildly abnormal	2	(100.0)	0	(0.0)	37	(37.0)	6	(28.6)
Normal	0	(0.0)	0	(0.0)	11	(11.0)	2	(9.5)
Unable to judge	16	(--)	17	(--)	458	(--)	192	(--)
Behavior/Social Competence ¹ _{DF41}	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Severely abnormal	4	(57.1)	8	(72.7)	182	(65.9)	51	(67.1)
Mildly abnormal	2	(28.6)	3	(27.3)	67	(24.3)	18	(23.7)
Normal	1	(14.3)	0	(0.0)	27	(9.8)	7	(9.2)
Unable to judge	11	(--)	10	(--)	268	(--)	133	(--)
Child Behavior Checklist Tscores	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)
		n = 6		n = 9		n = 237		n = 71
Total _{cbtotpro}	71.5	(12.0)	71.7	(9.1)	72.7	(8.4)	71.9	(9.7)
Internal _{cbintrnl}	60.8	(13.0)	62.0	(11.8)	66.4	(10.6)	66.2	(10.1)
External _{cbextrnl}	69.7	(15.0)	67.6	(6.0)	71.2	(9.7)	69.9	(12.4)
Total _{totprocb}	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
clinical range (tscore > 70)	5	(83.3)	5	(55.6)	158	(66.7)	50	(70.5)
borderline range (tscore 67-70)	0	(0.0)	1	(11.1)	31	(13.1)	4	(5.6)
normal (tscore 0-66)	1	(16.7)	3	(33.3)	48	(20.2)	17	(23.9)

II. Identification of FAS

Table II.8 (cont.). Evidence of CNS dysfunction among the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)	AFAS Diag. Cat. C (n = 21)	Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)	All Others Diag. Cat. D, J-V (n = 213)
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Functional (“Objective Indicators”) continued

Child Behavior Checklist T-scores (continued)

	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Internal <small>intrnlcb</small>								
clinical range (t-score >70)	2	(33.3)	3	(33.3)	102	(43.0)	29	(40.8)
borderline range (t-score 67-70)	0	(0.0)	1	(11.1)	23	(9.7)	12	(16.9)
normal (t-score 0-66)	4	(66.7)	5	(55.6)	112	(47.3)	30	(42.3)
External <small>extrnlcb</small>								
clinical range (t-score >70)	4	(66.7)	2	(22.2)	134	(56.5)	40	(56.3)
borderline range (t-score 67-70)	0	(0.0)	4	(44.5)	41	(17.3)	6	(8.5)
normal (t-score 0-66)	2	(33.3)	3	(33.3)	62	(26.2)	25	(35.2)
	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)
Activities <small>cbactiv</small>	40.8	(6.7)	42.2	(7.4)	43.7	(7.3)	42.9	(8.7)
Social <small>cbsocial</small>	35.5	(8.8)	32.6	(5.8)	35.4	(9.1)	34.2	(10.0)
School <small>cbsschool</small>	27.0	(1.4)	27.6	(1.8)	30.6	(6.0)	32.2	(7.7)
Withdrawn <small>cbwithdr</small>	61.5	(61.5)	63.3	(11.7)	65.7	(10.8)	65.8	(11.5)
Somatic <small>cbssomatc</small>	60.3	(7.3)	59.0	(8.0)	61.9	(10.6)	60.7	(8.7)
Anxious/depressed <small>cb anxdep</small>	60.8	(10.8)	62.8	(13.1)	65.9	(10.9)	65.2	(10.4)
Social Problems <small>cb socprb</small>	69.0	(13.7)	70.6	(8.9)	69.5	(10.3)	69.3	(10.4)
Thought Problems <small>cb thought</small>	69.5	(11.0)	69.7	(14.2)	68.8	(10.5)	67.5	(10.0)
Attention Problems <small>cb atten</small>	78.0	(13.6)	76.0	(12.1)	75.2	(11.1)	73.7	(11.2)
Delinquent behavior <small>cb delinq</small>	65.3	(10.3)	67.6	(7.2)	69.7	(9.7)	69.7	(11.0)
Aggressive behavior <small>cb aggres</small>	74.0	(17.8)	66.0	(8.3)	72.1	(12.2)	70.9	(13.7)

II. Identification of FAS

Table II.8 (cont.). Evidence of CNS dysfunction among the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
Functional (“Objective Indicators”) continued								
Child Behavior Checklist (continued)								
Activities _{activeb}	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
clinical range (tscore >70)	3	(75.0)	8	(88.9)	180	(89.5)	59	(89.4)
borderline range (tscore 67-70)	1	(25.0)	0	(0.0)	10	(5.0)	3	(4.5)
normal (tscore 0-66)	0	(0.0)	1	(11.1)	11	(5.5)	4	(6.1)
Social _{socialb}	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
clinical range (tscore >70)	2	(50.0)	3	(33.3)	99	(52.1)	23	(36.5)
borderline range (tscore 67-70)	1	(25.0)	2	(22.2)	30	(15.8)	10	(15.9)
normal (tscore 0-66)	1	(25.0)	4	(44.5)	61	(32.1)	30	(47.6)
School _{schoolb}	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
clinical range (tscore >70)	0	(0.0)	0	(0.0)	39	(24.2)	16	(29.6)
borderline range (tscore 67-70)	0	(0.0)	0	(0.0)	22	(13.7)	7	(13.0)
normal (tscore 0-66)	4	(100.0)	5	(100.0)	100	(62.1)	31	(57.4)
Withdrawn _{withdrb}	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
clinical range (tscore >70)	1	(16.7)	3	(33.3)	63	(26.6)	22	(31.0)
borderline range (tscore 67-70)	1	(16.7)	0	(0.0)	44	(18.6)	12	(16.9)
normal (tscore 0-66)	4	(66.6)	6	(66.7)	130	(54.8)	37	(52.1)
Somatic _{somateb}	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
clinical range (tscore >70)	1	(16.7)	1	(11.1)	39	(16.5)	10	(14.0)
borderline range (tscore 67-70)	0	(0.0)	1	(11.1)	43	(18.1)	7	(9.9)
normal (tscore 0-66)	5	(83.3)	7	(77.8)	155	(65.4)	54	(76.1)

II. Identification of FAS

Table II.8 (cont.). Evidence of CNS dysfunction among the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
Functional (“Objective Indicators”) continued								
Child Behavior Checklist (continued)								
Anxious/depressed _{anxdep}	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
clinical range (tscore >70)	2	(33.3)	2	(22.2)	73	(30.9)	16	(22.6)
borderline range (tscore 67-70)	0	(0.0)	0	(0.0)	25	(10.5)	14	(19.7)
normal (tscore 0-66)	4	(66.7)	7	(77.8)	139	(58.6)	41	(57.7)
Social Problems _{soopr}	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
clinical range (tscore >70)	2	(33.3)	4	(44.5)	93	(39.2)	34	(47.9)
borderline range (tscore 67-70)	1	(16.7)	2	(22.2)	50	(21.1)	14	(19.7)
normal (tscore 0-66)	3	(50.0)	3	(33.3)	94	(39.7)	23	(32.4)
Thought Problems _{thought}	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
clinical range (tscore >70)	4	(66.7)	3	(33.3)	91	(38.4)	21	(29.6)
borderline range (tscore 67-70)	0	(0.0)	4	(44.5)	62	(26.2)	23	(32.4)
normal (tscore 0-66)	2	(33.3)	2	(22.2)	84	(35.4)	27	(38.0)
Attention Problems _{attent}	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
clinical range (tscore >70)	5	(83.3)	6	(66.7)	148	(62.5)	42	(59.2)
borderline range (tscore 67-70)	0	(0.0)	1	(11.1)	43	(18.1)	14	(19.7)
normal (tscore 0-66)	1	(16.7)	2	(22.2)	46	(19.4)	15	(21.1)
Delinquent behavior _{delinq}	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
clinical range (tscore >70)	3	(50.0)	4	(44.5)	119	(50.2)	35	(49.3)
borderline range (tscore 67-70)	0	(0.0)	3	(33.3)	40	(16.9)	11	(15.5)
normal (tscore 0-66)	3	(50.0)	2	(22.2)	78	(32.9)	25	(35.2)

II. Identification of FAS

Table II.8 (cont.). Evidence of CNS dysfunction among the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
Functional (“Objective Indicators”) continued								
Child Behavior Checklist (continued)								
Aggressive behavior ^{aggrescb}	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
clinical range (tscore >70)	4	(66.7)	2	(22.2)	119	(50.2)	34	(47.9)
borderline range (tscore 67-70)	0	(0.0)	2	(22.2)	47	(19.8)	10	(14.1)
normal (tscore 0-66)	2	(33.3)	5	(55.6)	71	(30.0)	27	(38.0)
Neuropsychological¹ _{DF412}	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Severely abnormal	1	(50.0)	6	(75.0)	44	(31.8)	16	(32.6)
Mildly abnormal	1	(50.0)	2	(25.0)	55	(39.9)	12	(24.5)
Normal	0	(0.0)	0	(0.0)	39	(28.3)	21	(42.9)
Unable to judge	15	(--)	13	(--)	417	(--)	164	(--)
Visual Motor Integration	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)
Standard score	83	(0.0) n = 1	--	(--) n = 0	89.2	(9.7) n = 34	86.2	(14.4) n = 9

II. Identification of FAS

Primary Prevention of FAS: Targeting Women at High Risk

Table II.8 (cont.). Evidence of CNS dysfunction among the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
Functional (“Objective Indicators”) continued								
Language¹								
Expressive/Receptive ¹ <small>DF416</small>	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Severely abnormal	4	(44.4)	11	(73.3)	127	(34.1)	25	(22.5)
Mildly abnormal	3	(33.3)	4	(26.7)	127	(34.1)	30	(27.0)
Normal	2	(22.3)	0	(0.0)	118	(31.8)	56	(50.5)
Unable to judge	9	(--)	6	(--)	186	(--)	102	(--)
Mental State Reasoning ^{1,2} <small>DF423</small>	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Severely abnormal	2	(50.0)	5	(100.0)	82	(52.6)	15	(36.6)
Mildly abnormal	0	(0.0)	0	(0.0)	11	(7.1)	10	(24.4)
Normal	2	(50.0)	0	(0.0)	63	(40.3)	16	(39.0)
Unable to judge	13	(--)	16	(--)	398	(--)	171	(--)
Narrative ^{1,3} <small>DF427</small>	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Severely abnormal	2	(66.7)	4	(57.1)	94	(51.9)	17	(36.2)
Mildly abnormal	1	(33.3)	3	(42.9)	33	(18.3)	14	(29.8)
Normal	0	(0.0)	0	(0.0)	54	(29.8)	16	(34.0)
Unable to judge	14	(--)	14	(--)	375	(--)	165	(--)
Developmental¹ <small>DF431</small>	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Severely abnormal	3	(37.5)	7	(100.0)	67	(52.7)	9	(19.6)
Mildly abnormal	5	(62.5)	0	(0.0)	42	(33.1)	11	(23.9)
Normal	0	(0.0)	0	(0.0)	18	(14.2)	26	(56.5)
Unable to judge	10	(--)	14	(--)	426	(--)	166	(--)

II. Identification of FAS

Table II.8 (cont.). Evidence of CNS dysfunction among the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
Functional (“Subjective Indicators”)¹								
Planning¹								
Organicity ranking ¹ DF51	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Very likely	4	(66.7)	6	(50.0)	132	(39.9)	35	(32.7)
Somewhat likely	2	(33.3)	5	(41.7)	158	(47.7)	46	(43.0)
Unlikely	0	(0.0)	1	(8.3)	41	(12.4)	26	(24.3)
Unable to judge	11	(--)	8	(--)	228	(--)	103	(--)
Needs help organizing daily tasks DF52	6	(33.3)	13	(61.9)	269	(48.3)	77	(36.2)
Cannot organize time DF53	2	(11.1)	5	(23.8)	125	(22.4)	43	(20.3)
Does not understand concept of time DF54	0	(0.0)	2	(9.5)	47	(8.5)	19	(9.0)
Behavior Regulation / Sensory Motor Integration¹								
Organicity ranking ¹ DF58	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Very likely	7	(43.8)	17	(85.0)	310	(62.2)	78	(47.6)
Somewhat likely	7	(43.8)	3	(15.0)	160	(32.1)	63	(38.4)
Unlikely	2	(12.4)	0	(0.0)	28	(5.7)	23	(14.0)
Unable to judge	2	(--)	1	(--)	60	(--)	48	(--)
Poor management of anger/tantrums DF59	6	(33.3)	16	(76.2)	418	(74.9)	126	(59.2)
Mood swings DF510	6	(33.3)	13	(61.9)	337	(60.4)	105	(49.3)
Impulsive DF511	7	(41.2)	19	(90.5)	408	(73.1)	125	(58.7)
Compulsive DF512	4	(23.5)	3	(14.3)	60	(10.8)	24	(11.3)
Perseverative DF513	4	(22.2)	4	(19.0)	87	(15.7)	14	(6.6)
Inattentive DF514	12	(66.7)	19	(90.5)	451	(80.8)	121	(57.1)
High activity level DF516	10	(55.6)	15	(71.4)	341	(61.3)	109	(51.7)
Lying / stealing DF518	5	(27.8)	10	(47.6)	248	(44.4)	75	(35.2)
Over-reactive to stimuli DF519	8	(44.4)	8	(38.1)	160	(28.8)	40	(19.0)

II. Identification of FAS

Primary Prevention of FAS: Targeting Women at High Risk

Table II.8 (cont.). Evidence of CNS dysfunction among the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
Functional (“Subjective Indicators”) continued								
Abstract Thinking / Judgement¹								
Organicity ranking ¹ DF523	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Very likely	6	(66.7)	7	(53.8)	97	(28.7)	25	(21.4)
Somewhat likely	3	(33.3)	6	(46.2)	203	(60.1)	67	(57.2)
Unlikely	0	(0.0)	0	(0.0)	38	(11.2)	25	(21.4)
Unable to judge	9	(--)	8	(--)	220	(--)	95	(--)
Poor judgement DF524	9	(50.0)	15	(71.4)	324	(58.1)	102	(47.9)
Cannot be left alone DF525	1	(5.9)	7	(33.3)	76	(13.7)	24	(11.3)
Concrete, unable to think abstractly DF526	5	(27.8)	8	(38.1)	149	(26.8)	46	(21.7)
Memory / Learning / Information Processing¹								
Organicity ranking ¹ DF529	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Very likely	7	(43.8)	16	(88.8)	194	(41.5)	63	(41.2)
Somewhat likely	9	(56.2)	1	(5.6)	238	(50.9)	60	(39.2)
Unlikely	0	(0.0)	1	(5.6)	36	(7.6)	30	(19.6)
Unable to judge	2	(--)	3	(--)	90	(--)	58	(--)
Poor memory, poor retrieval of learned info. DF530	9	(50.0)	17	(81.0)	289	(51.8)	95	(44.6)
Slow to learn new skills DF531	16	(88.9)	19	(90.5)	387	(69.4)	106	(50.0)
Does not seem to learn from past experiences DF532	6	(33.3)	16	(76.2)	323	(57.9)	95	(44.8)
Poor info. processing speed and accuracy DF534	9	(50.0)	18	(85.7)	243	(43.5)	70	(32.9)

II. Identification of FAS

Primary Prevention of FAS: Targeting Women at High Risk

Table II.8 (cont.). Evidence of CNS dysfunction among the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
Functional (“Subjective Indicators”) continued								
Spatial Memory¹								
Organicity ranking ¹ DF537	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Very likely	1	(33.3)	1	(50.0)	7	(8.0)	4	(11.1)
Somewhat likely	0	(0.0)	0	(0.0)	12	(13.8)	5	(13.9)
Unlikely	2	(66.7)	1	(50.0)	68	(78.2)	27	(75.0)
Unable to judge	15	(--)	19	(--)	471	(--)	176	(--)
Gets lost easily DF538	0	(0.0)	1	(4.8)	17	(3.1)	7	(3.3)
Social Skills and Adaptive Behavior¹								
Organicity ranking ¹ DF541	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Very likely	8	(53.3)	13	(68.4)	262	(54.8)	78	(47.6)
Somewhat likely	5	(33.3)	6	(31.6)	159	(33.3)	47	(28.7)
Unlikely	2	(13.4)	0	(0.0)	57	(11.9)	39	(23.7)
Unable to judge	3	(--)	2	(--)	79	(--)	45	(--)
Behaves notably younger than age DF542	9	(50.0)	18	(85.7)	357	(64.0)	104	(49.1)
Poor social/adaptive skills DF543	11	(61.1)	17	(81.0)	400	(71.7)	125	(58.7)
Motor / Oral Motor Skills¹								
Organicity ranking ¹ DF546	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Very likely	8	(50.0)	8	(61.5)	101	(24.2)	22	(16.4)
Somewhat likely	4	(25.0)	4	(30.8)	171	(40.9)	45	(33.6)
Unlikely	4	(25.0)	1	(7.7)	146	(34.9)	67	(50.0)
Unable to judge	2	(--)	7	(--)	140	(--)	79	(--)

II. Identification of FAS

Primary Prevention of FAS: Targeting Women at High Risk

Table II.8 (cont.). Evidence of CNS dysfunction among the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
Functional (“Subjective Indicators”) continued								
Poor/delayed motor skills ^{DF547}	10	(55.6)	12	(57.1)	269	(48.3)	63	(29.6)
Poor balance ^{DF548}	4	(22.2)	5	(23.8)	90	(16.2)	25	(11.7)
Reported Psychiatric Diagnoses ^{DF551}								
	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Adjustment Disorder	0	(0.0)	1	(4.8)	10	(1.8)	8	(3.8)
Alcohol Dependence (303.90)	0	(0.0)	0	(0.0)	4	(0.7)	1	(0.5)
Alcohol/Drug/Polysubstance Abuse	0	(0.0)	0	(0.0)	7	(1.3)	1	(0.5)
Anti-social Personality Disorder (301.7)	0	(0.0)	0	(0.0)	1	(0.2)	0	(0.0)
Anxiety Disorder	0	(0.0)	0	(0.0)	4	(0.7)	0	(0.0)
Articulation Disorder	0	(0.0)	0	(0.0)	3	(0.5)	0	(0.0)
Avoidant Personality Disorder (301.82)	0	(0.0)	0	(0.0)	2	(0.4)	0	(0.0)
Bipolar/Manic Depression	0	(0.0)	0	(0.0)	6	(1.1)	4	(1.9)
Borderline Intellect Functioning	0	(0.0)	1	(4.8)	2	(0.4)	1	(0.5)
Cognitive Disorder (294.9)	0	(0.0)	1	(4.8)	0	(0.0)	0	(0.0)
Conduct Disorder (312.8)	0	(0.0)	0	(0.0)	22	(3.9)	8	(3.8)
DDD-Developmental Disability Disorder	0	(0.0)	0	(0.0)	4	(0.7)	0	(0.0)
Depression	0	(0.0)	1	(4.8)	31	(5.5)	10	(4.7)
Disorder of Written Expression (315.2)	0	(0.0)	0	(0.0)	1	(0.2)	1	(0.5)
Dissociative Disorder	0	(0.0)	0	(0.0)	3	(0.5)	0	(0.0)
Dyslexia	0	(0.0)	0	(0.0)	1	(0.2)	0	(0.0)
Dysthymic Disorder (300.4)	0	(0.0)	0	(0.0)	17	(3.0)	7	(3.3)
Emotionally Handicapped	0	(0.0)	0	(0.0)	1	(0.2)	0	(0.0)
Exogenous Obesity	0	(0.0)	0	(0.0)	0	(0.0)	1	(0.5)
Expressive Language Disorder (315.31)	0	(0.0)	0	(0.0)	3	(0.5)	0	(0.0)
Generalized Anxiety Disorder(300.02)	0	(0.0)	0	(0.0)	3	(0.5)	0	(0.0)

II. Identification of FAS

Table II.8 (cont.). Evidence of CNS dysfunction among the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Reported Psychiatric Diagnoses (continued) <small>DF551</small>								
Impulse Control Disorder(312.30)	0	(0.0)	1	(4.8)	1	(0.2)	0	(0.0)
Language Disorder	0	(0.0)	0	(0.0)	2	(0.4)	0	(0.0)
Learning Disorder	0	(0.0)	0	(0.0)	5	(0.9)	2	(0.9)
Major Affective Disorder	0	(0.0)	0	(0.0)	0	(0.0)	2	(0.9)
Mathematics Disorder (315.1)	0	(0.0)	0	(0.0)	2	(0.4)	2	(0.9)
Mixed Personality	0	(0.0)	0	(0.0)	0	(0.0)	1	(0.5)
Nicotine Dependence (305.10)	0	(0.0)	1	(4.8)	0	(0.0)	0	(0.0)
OCD-Obsessive Compulsive Disorder (300.3)	0	(0.0)	0	(0.0)	1	(0.2)	1	(0.5)
ODD-Oppositional Defiant Disorder (313.81)	0	(0.0)	0	(0.0)	40	(7.2)	9	(4.2)
Organic-Brain Syn./Damage/Personality Syn.	0	(0.0)	1	(4.8)	1	(0.2)	0	(0.0)
Overanxious Disorder	0	(0.0)	0	(0.0)	1	(0.2)	3	(1.4)
Panic Disorder	0	(0.0)	0	(0.0)	1	(0.2)	1	(0.5)
PDD-Pervasive Developmental Disorder (299.80)	1	(5.6)	0	(0.0)	7	(1.3)	0	(0.0)
Personality Disorder	0	(0.0)	0	(0.0)	3	(0.5)	3	(1.4)
Psychotic Disorder	0	(0.0)	0	(0.0)	3	(0.5)	0	(0.0)
PTSD Post Traumatic Stress Disorder (309.81)	0	(0.0)	1	(4.8)	41	(7.3)	13	(6.1)
Pyromania(312.33)	0	(0.0)	0	(0.0)	1	(0.2)	0	(0.0)
Reactive Attachment Disorder (313.89)	1	(5.6)	2	(9.5)	19	(3.4)	5	(2.3)
Reading Disorder(315.00)	0	(0.0)	0	(0.0)	3	(0.5)	3	(1.4)
SBD-Severe Behavioral Disorder	0	(0.0)	0	(0.0)	3	(0.5)	0	(0.0)
Schizophrenia Paranoid Type (295.30)	0	(0.0)	0	(0.0)	1	(0.2)	4	(1.9)
Schizotypal Personality	0	(0.0)	1	(4.8)	0	(0.0)	1	(0.5)

II. Identification of FAS

Primary Prevention of FAS: Targeting Women at High Risk

Table II.8 (cont.). Evidence of CNS dysfunction among the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Reported Psychiatric Diagnoses (continued) ^{DF551}								
Separation Anxiety (309.21)	0	(0.0)	0	(0.0)	3	(0.5)	0	(0.0)
Sexual Predator	0	(0.0)	0	(0.0)	1	(0.2)	0	(0.0)
Solitary Aggressive Type	0	(0.0)	0	(0.0)	2	(0.4)	0	(0.0)
Suicidal	1	(5.6)	0	(0.0)	3	(0.5)	0	(0.0)
Tourette's Syndrome (307.21)	0	(0.0)	0	(0.0)	1	(0.2)	0	(0.0)
Undersocialized Aggressive Behavior	0	(0.0)	0	(0.0)	1	(0.2)	0	(0.0)
ADHD ^{DF552}	4	(22.2)	7	(33.3)	154	(27.8)	61	(28.6)
Dx but not in records	0	(0.0)	0	(0.0)	1	(0.2)	0	(0.0)
No Disorder Reported	15	(83.3)	17	(81.0)	422	(75.5)	163	(76.5)
Reported Medications ^{DF554a-58a}								
Cyclert/Pemoline	1	(5.6)	1	(4.8)	19	(3.5)	2	(1.0)
Desipramine/Norpramin	0	(0.0)	0	(0.0)	10	(1.8)	6	(2.9)
Imipramine/Tofranil	1	(5.6)	2	(9.5)	28	(5.1)	16	(7.7)
Lithium/Lithonate	0	(0.0)	0	(0.0)	8	(1.5)	6	(2.9)
Ritalin/Methylphenidate	4	(22.2)	7	(33.3)	125	(22.8)	45	(21.5)

1 Astley & Clarren, Diagnostic Guide for FAS and Related Conditions 1997. See FAS Diagnostic Evaluation Form (Appendix A).

2 Coggins, T., Assessment of language and social communication in FAS, 1997.

3 Coggins, T., et al., Analyzing narrative productions in older school-age children and adolescents with FAS: an experimental tool for clinical application. Clin Ling Phon 1998;12: 221 - 236.

II. Identification of FAS

Primary Prevention of FAS: Targeting Women at High Risk

Table II.9. Maternal alcohol use among the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
4-Digit Diagnostic Gestational Alcohol Exposure Rank ¹ <small>alc4</small>								
Rank 4, Exposed, high risk	6	(33.3)	18	(85.7)	277	(49.6)	38	(17.8)
Rank 3, Exposed, some risk	11	(61.1)	3	(14.3)	282	(50.4)	30	(14.1)
Rank 2, Exposure unknown	1	(5.6)	0	(0.0)	0	(0.0)	144	(67.6)
Rank 1, No exposure	0	(0.0)	0	(0.0)	0	(0.0)	1	(0.5)
Before pregnancy (<i>1 drink = 1/2 ounce of absolute alcohol</i>)								
Avg. # drinks per drinking occasion <small>DF61</small>	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)
(n) min. - max.	9.4	(10.4)	4.6	(2.5)	9.5	(8.5)	9.6	(10.3)
	(7)	1 - 32	(5)	3 - 9	(226)	0 - 86	(46)	0 - 54
Max. # drinks per drinking occasion <small>DF62</small>	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)
(n) min. - max.	11.0	(8.4)	12.2	(5.2)	14.5	(10.4)	12.6	(12.8)
	(5)	1 - 24	(6)	4 - 18	(207)	0 - 86	(43)	0 - 54
Avg. # drinking occasions per week <small>DF63</small>	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)	mean	(S.D.)
(n) min. - max.	6.5	(0.8)	4.3	(2.1)	5.0	(4.9)	4.3	(2.6)
	(11)	5 - 7	(8)	2 - 7	(286)	0 - 42	(57)	0 - 7
Type of alcohol consumed most often (<i>can select >1</i>)	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
None <small>df64a</small>	0	(0.0)	0	(0.0)	1	(0.2)	1	(0.5)
Wine <small>df64b</small>	1	(5.6)	3	(14.3)	25	(4.5)	5	(2.3)
Beer <small>df64c</small>	7	(38.9)	3	(14.3)	122	(21.8)	23	(10.8)
Hard liquor <small>df64d</small>	4	(22.2)	2	(9.5)	82	(14.7)	8	(3.8)
Not reported <small>df64e</small>	10	(55.6)	16	(76.2)	386	(69.1)	182	(85.4)

II. Identification of FAS

Primary Prevention of FAS: Targeting Women at High Risk

Table II.9 (cont). Maternal alcohol use among the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
	mean (n)	(S.D.) min. - max.	mean (n)	(S.D.) min. - max.	mean (n)	(S.D.) min. - max.	mean (n)	(S.D.) min. - max.
During pregnancy (<i>1 drink = 1/2 ounce of absolute alcohol</i>)								
Avg. # drinks per drinking occasion ^{DF66} (n) min. - max.	6.1 (7)	(3.9) 1 - 12	6.9 (7)	(6.5) 2 - 21	8.0 (254)	(6.9) 0.3 - 40	6.7 (49)	(9.5) 0 - 54
Max. # drinks per drinking occasion ^{DF67} (n) min. - max.	10.5 (6)	(7.8) 1 - 24	12.0 (10)	(8.5) 3 - 32	12.2 (227)	(9.4) 0 - 60	9.1 (47)	(11.8) 0 - 54
Avg. # drinking occasions per week ^{DF68} (n) min. - max.	6.5 (12)	(1.0) 4 - 7	4.9 (16)	(2.6) 2 - 9	4.9 (332)	(4.5) 0 - 42	3.4 (57)	(2.8) 0 - 7
Type of alcohol consumed most often: <i>(can select >1)</i>	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
None ^{df69a}	0	(0.0)	0	(0.0)	0	(0.0)	1	(0.5)
Wine ^{df69b}	2	(11.1)	3	(14.3)	28	(5.0)	5	(2.3)
Beer ^{df69c}	8	(44.4)	4	(19.0)	142	(25.4)	23	(10.8)
Hard liquor ^{df69d}	3	(16.7)	3	(14.3)	94	(16.8)	8	(3.8)
Not reported ^{df69e}	9	(50.0)	14	(66.7)	355	(63.5)	182	(85.4)
Trimester when alcohol was reportedly consumed ^{DF611}	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
1 st only	3	(17.6)	3	(14.3)	43	(7.6)	9	(4.3)
2 nd only	0	(0.0)	0	(0.0)	2	(0.4)	0	(0.0)
3 rd only	0	(0.0)	0	(0.0)	1	(0.2)	2	(1.0)
1 st and 2 nd	1	(5.9)	1	(4.8)	32	(5.8)	11	(5.3)
1 st and 3 rd	0	(0.0)	1	(4.8)	2	(0.4)	1	(0.5)
2 nd and 3 rd	0	(0.0)	0	(0.0)	11	(2.0)	0	(0.0)
1 st , 2 nd and 3 rd	9	(52.9)	13	(61.8)	333	(60.0)	42	(20.0)
Unknown	4	(23.6)	3	(14.3)	131	(23.6)	144	(68.9)

II. Identification of FAS

Table II.9 (cont.). Maternal alcohol use among the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
During pregnancy (continued)								
Reportedly diagnosed with alcoholism ^{DF612}	16	(88.9)	18	(85.7)	386	(69.3)	108	(50.9)
Ever reported to have an alcohol problem ^{DF613}	16	(88.9)	21	(100.0)	511	(91.6)	150	(70.8)
Reportedly received alcohol treatment ^{DF614}	12	(66.7)	17	(81.0)	334	(60.4)	93	(44.5)
Who reported maternal alcohol use for clinic review ^{DF615}								
Birth mother	6	(33.3)	8	(40.0)	235	(42.3)	50	(24.3)
Individual who directly observed her drinking	4	(22.2)	7	(35.0)	141	(25.4)	21	(10.2)
Individual who did not directly observe her drinking	8	(44.5)	5	(25.0)	179	(32.3)	135	(65.5)
Reliability of reported use of alcohol during pregnancy ^{DF616}								
Reliable	12	(70.6)	14	(66.7)	348	(64.5)	86	(41.3)
Questionable reliability	2	(11.8)	3	(14.3)	65	(12.1)	34	(16.3)
Unknown reliability	3	(17.6)	4	(19.0)	126	(23.4)	88	(42.4)

1. Astley & Clarren, Diagnostic Guide for FAS and Related Conditions, 1997. See FAS Diagnostic Evaluation Form (Appendix A).

II. Identification of FAS

Table II.10. Comorbidities (other prenatal and postnatal events that could contribute to cognitive/behavioral dysfunction) among the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Prenatal Period								
Prenatal								
Overall risk rating ^{DF71}	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
High risk	3	(17.7)	6	(28.6)	56	(10.1)	14	(6.6)
Some risk	5	(29.4)	13	(61.9)	395	(71.2)	124	(58.5)
Unknown risk	9	(52.9)	2	(9.5)	98	(17.6)	73	(34.4)
No risk	0	(0.0)	0	(0.0)	6	(1.1)	1	(0.5)
Poor prenatal care ^{DF72}	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Yes	3	(16.7)	1	(5.0)	44	(8.0)	9	(4.3)
Genetic								
Maternal learning difficulties present ^{DF74}	5	(27.8)	9	(42.9)	246	(44.6)	83	(39.7)
Paternal learning difficulties present ^{DF75}	1	(5.6)	4	(19.0)	151	(27.7)	43	(20.6)
Other conditions of heritability present ^{DF78}	2	(11.1)	4	(19.0)	87	(15.8)	35	(17.2)
Other potentially teratogenic exposures present ^{DF79}	11	(61.1)	18	(85.7)	472	(84.4)	149	(70.3)

II. Identification of FAS

Primary Prevention of FAS: Targeting Women at High Risk

Table II.10 (cont.). Comorbidities (other prenatal and postnatal events that could contribute to cognitive/behavioral dysfunction) among the 811 patients evaluated at the FAS DPN in the first 5 years of operation (1993-97) stratified by diagnostic outcome¹.

Characteristic	FAS Diag. Cat. A,B (n = 18)		AFAS Diag. Cat. C (n = 21)		Affected, Alcohol Exposed Diag. Cat. E-I (n = 559)		All Others Diag. Cat. D, J-V (n = 213)	
Postnatal Period¹								
Overall risk rating ¹ DF710	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
High risk	7	(41.2)	8	(38.1)	244	(43.8)	74	(35.2)
Some risk	5	(29.4)	7	(33.3)	183	(32.9)	71	(33.8)
Unknown risk	4	(23.5)	6	(28.6)	113	(20.2)	61	(29.1)
No risk	1	(5.9)	0	(0.0)	17	(3.1)	4	(1.9)
Other perinatal difficulties reported DF711	8	(44.4)	4	(19.0)	184	(32.9)	45	(21.2)
Issues of nurture	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Physical abuse DF712	2	(11.8)	10	(50.0)	160	(28.8)	59	(28.2)
Sexual abuse DF713	1	(5.9)	3	(15.0)	122	(21.9)	32	(15.3)
Disrupted placement history DF714	8	(47.1)	8	(38.1)	243	(44.8)	115	(55.6)
Other(e.g. neglect, trauma) DF715	7	(38.9)	11	(52.4)	251	(45.3)	106	(50.5)
Other postnatal events that could result in brain dysfunction DF716	n	(valid %)	n	(valid %)	n	(valid %)	n	(valid %)
Head injuries	1	(5.6)	1	(4.8)	35	(6.3)	10	(4.7)
High fevers	0	(0.0)	0	(0.0)	7	(1.3)	2	(0.9)
Chronic substance abuse by patient	0	(0.0)	0	(0.0)	11	(2.0)	7	(3.3)
Other	0	(0.0)	3	(14.3)	36	(6.1)	17	(8.9)
None reported	17	(94.4)	17	(81.0)	471	(84.3)	175	(82.2)

1. Astley & Clarren, Diagnostic Guide for FAS and Related Conditions, 1997.

III. Identification of the Birth Mothers of Individuals with FAS**III.A. Identification of the Birth Mothers**

Two-hundred and fifty-seven birth mothers, who had given birth to at least one child with FAS, were identified through the diagnosis of their child. Children with FAS were identified from the following sources: 1) our FAS DPN Clinics between January, 1993 and June, 1997, 2) from previous and ongoing clinics at Children's Hospital and Medical Center in Seattle attended by Sterling Clarren, M.D. (Craniofacial Clinic, 1978-97, Inpatient Psychiatry, 1994-97; CHMC Inpatient Services 1980-97) and 3) Children's Hospital Outreach clinics attended by either Sterling Clarren M.D. or physicians in the Congenital Defects Division of Children's Hospital, 1980-97. Of the 257 eligible mothers, 147 (57%) were identified through the FAS DPN Clinics.

On March 5, 1995 location efforts began with a list of 66 eligible women. This number grew to 257 by June 30, 1997. During the course of the location and enrollment efforts, 33 women were interviewed the first year, 36 the second year, and 11 in the final quarter of the study.

III.B. Location of the Birth Mothers

The key barriers to locating the birth mothers were: 1) most of the children were no longer in the custody of their birth mothers and 2) medical confidentiality limited the exchange of patient/birth mother information between our study staff and outside agencies who could be instrumental in assisting us. We found, however, that public health and social service providers were very willing to help when they could. Most often, they would telephone or forward letters of invitation from us to the eligible women. The Department of Licensing provided an address of record when provided with the woman's full name and date of birth at a cost of \$2 per name. Three women were located by this method. The Department of Corrections confirmed incarceration and location in two cases when provided with full name and date of birth. This information is free and part of the record of public domain. The internet allows access to search engines and databases in order to search addresses, phone numbers, forwarding address, and death verification. This was a valuable resource for finding not only the birth mothers, but lateral contacts who might know the whereabouts of the birth mother.

III.C. Enrollment of the Birth Mothers

In enrolling women in the study, an important principle was giving the women comfort through information and control. In all cases, women were given as much information about the study as possible. Every contact with the subject about their participation included discussion of confidentiality, incentives, the value of their experience and opinions, and the importance of the study for others. Asking questions was encouraged, and women were allowed to consider and to reconsider their participation.

Every effort was made to facilitate the woman's participation in the study. Offering childcare, transportation, flexible scheduling, and mobile interviewing were key in enrolling women. Many women quickly agreed to participate when they understood that the interviewing team would come to them. Additionally, as long as the parameters of the interview were maintained (private room, no interruptions, electrical outlet), women were encouraged to choose the setting of the interview.

Interviews took place in a variety of settings -- public health centers, hospitals, community centers, treatment centers, libraries, and homes -- and at a time convenient to the women. Twenty-three women needed transportation to and/or from the interview. Twenty-seven women chose to interview at home. Eight women accepted the offer of child care during the interview. Each woman received \$75 at the completion of the interview. This incentive was paramount to the enrollment success of the study. Federal laws protecting study subjects' confidentiality allowed them to accept the \$75 and not have to report it as income.

After talking to a subject about the study, and usually enrolling them, a follow-up letter summarizing the conversation was mailed out along with a study information sheet. The letter summarized the conversation, thanked them for considering participating, and included, if appropriate, the date and time of the interview, and the study office phone number. Confirmation phone calls were made a day or two before the interview. Women who wanted time to consider were asked when we should call back.

Of the six women who declined to interview, five of them had given birth to a child with FAS over 17 years ago, and one had given birth to a child with FAS within the last four months. Two of the identified patients had been diagnosed over ten years ago. Of the five women, three of them said they were too old or unhealthy to participate. One said that she was too busy to participate. Another woman received a letter and information sheet about the study and sent back the response form saying she did not want to participate.

Our success at identifying, locating, and interviewing eligible women is summarized in Table III.1.

Table III.1. Summary of maternal identification, location and enrollment stratified by whether child was diagnosed with FAS in an FAS DPN clinic or received an FAS Diagnosis prior to the establishment of the FAS DPN clinics.

Characteristic	Source of Patient with FAS					
	FAS DPN Clinics		Other Previous Clinics		Total	
	n	(%)	n	(%)	n	(%)
Total number of birth mothers	147		110		257	
Interview Status						
Interviews completed	46	(31.3)	34	(30.9)	80	(31.1)
Interview not completed	101	(68.7)	76	(69.1)	177	(68.9)
Reasons for not interviewing:						
Identified by name and located, but:						
No direct contact achieved	5		1		6	
Moved out of State	20		11		31	
Deceased	12		15		27	
Declined to interview	1		5		6	
Identified by name but not located	55		42		97	
Not identified or located	8		2		10	
Identification and Location Success Summary						
Identified by name	139	(94.6)	108	(98.2)	247	(96.1)
Identified by name and located	84	(57.1)	66	(60.0)	150	(58.4)
Identified by name but not located	55	(37.4)	42	(38.2)	97	(37.3)
Not identified by name or located	8	(5.5)	2	(1.8)	10	(3.9)

Table III.2. Selected characteristics of the 80 children with FAS whose birth mothers were interviewed.

Characteristic				
Age (yrs) at time of FAS diagnosis				
			n	(valid %)
0.0 to 5.9			37	(46.3)
6.0 to 10.9			18	(22.5)
11.0 to 15.9			20	(25.0)
16.0 to 20.9			1	(1.2)
21.0 and up			4	(5.0)
Mean	mean	(S.D.)	min. - max.	n
	7.8	(5.9)	0.1 - 24.2	(80)
Age (yrs) at time of interview				
			n	(valid %)
0.0 to 5.9			19	(23.8)
6.0 to 10.9			26	(32.5)
11.0 to 15.9			17	(21.3)
16.0 to 20.9			13	(16.2)
21.0 and up			5	(6.2)
Mean	mean	(S.D.)	min. - max.	n
	10.5	(6.2)	0.6 - 25.5	(80)
Gender				
			n:n	(valid %)
Male:Female (% female)			55:25	(31.3)
Race¹				
			n	(valid %)
1. Caucasian ^(aa)			51	(63.8)
2. African American ^(bb, b*, *b)			8	(10.0)
3. Native American, Alaskan or Canadian Native ^(any c, d, e)			19	(23.7)
4. Asian ^(any g, l, m, n)			0	(0.0)
5. Hispanic ^(any f)			2	(2.5)
6. Other ^(all others)			0	(0.0)
Primary caregiver at the time of the FAS diagnosis				
			n	(valid %)
Birth mother only			36	(45.0)
Birth father only			3	(3.7)
Both birth parents			2	(2.5)
Grandparents			7	(8.8)
Other family members			3	(3.7)
Adoptive parent			5	(6.2)
Foster parent			19	(23.8)
Other (group home, therapeutic center, juvenile detention)			3	(3.7)
Independent adult			1	(1.3)
Unknown			1	(1.3)

Table III.2. (cont.) Selected characteristics of the 80 children with FAS whose birth mothers were interviewed.

Characteristic	n	(valid %)
Clinical source for patient identification		
FAS DPN (1993 to 1997)	46	(57.5)
Children's Hospital and Medical Center	33	(41.3)
Outside service provider	1	(1.2)
Diagnosing Physician		
Sterling Clarren, M.D.	72	(90.0)
Other known physician	8	(10.0)

1. Race is classified hierarchically as follow: (1. Both parents are Caucasian); (2. Mother and/or father are African American); (3. Mother and/or father are Native Alaskan, Native American or Canadian Indian, neither parent is African American); (4. Mother and/or father are Asian, Japanese, Chinese, or Korean, neither parent is African American, Native American, Native Alaskan or Canadian Indian); (5. Either parent is Hispanic, neither parent is from racial categories 2, 3 or 4); (6. Both parents are from racial categories other than categories 1 through 5).

IV. Maternal Interview**IV.A. Format and Content**

A four-hour structured personal interview was developed to generate a lifetime, comprehensive profile of each woman's sociodemographics, reproductive history and family planning, social and health care use, adverse social experiences, social support structure, alcohol and drug use and treatment, mental health profile and intelligence quotient. The structured interview was administered by a single psychosocial nurse with a specialty in addictions. The interview included both standardized* and non-standardized instruments.

The entire questionnaire includes the following components:

1. Quick DIS III R* (administered by laptop computer)
2. History of Alcohol Use and Sobriety Attempts
3. Maternal Sociodemographics, Reproductive History, Family Planning, and Health Care
4. Social Support Questionnaire (Short Version)*
5. Shipley-Hartford Institute of Living Scale*

The Maternal Interview is attached in Appendix B.

V. Maternal Lifetime Profile

V.A. Overview

One of the primary objectives of this project was to generate a comprehensive lifetime profile of the population we intend to target for primary prevention intervention, namely the birth mothers of children with FAS. This profile serves as a first step in the development of our FAS Primary Prevention Program.

In this section, the reader will find a comprehensive set of data tables describing the 80 birth mothers of children with FAS. Formal analysis and interpretation will be presented in manuscripts being prepared for publication in the peer-reviewed medical literature in the fall of 1998. A few very preliminary observations might be suggested at this time. The racial distribution of this study population is generally reflective of the racial distribution of Washington State with a slight over-representation of Native Americans. This over-representation does not reflect a higher incidence of FAS in this segment of the population, but rather a greater level of awareness and readiness to prevent FAS. Sixty-one percent of the women did not finish high school and their IQ's were somewhat below the expected mean for the population as a whole (mean = 91 ± 15 S.D.). Mental health problems were very common with severe neurotic processes being much more typical than psychotic processes. Post traumatic stress disorder occurred in 77% of these woman and reflected the high rates of physical, sexual and emotional abuse that they had suffered. It would appear that these women have led very desperate lives and will need help and guidance in a number of domains if they are to be led into sobriety and protected from "at risk" pregnancies. It is our plan to fully review these data and to detail a description of the women, compare them, whenever possible to the general population of women in Washington State and to published samples of data on alcoholic women as a whole.

We have recently been funded by Washington State to develop a primary prevention project as part of the FAS Diagnostic and Prevention Network. We plan to follow the women in this study who remain at risk for giving birth to more children with FAS. We plan to use an advocate model to help the clients to identify the factors in their own lives which interfere with their ability to obtain alcohol treatment or which result in unplanned and alcohol exposed pregnancies. The data from this study will be placed in immediate use in working with this population. After further work with the women who have already been interviewed, we plan to expand to all birth mothers of children with prenatal alcohol exposure and documented organic brain damage.

V.B. Maternal Sociodemographic Profile

Table V.1. Maternal Sociodemographics Questionnaire: *Language, age, race, education, IQ.*

Characteristic	n = 80			
Native language ^{d1}	n	(valid %)		
English	79	(98.8)		
Has difficulty communicating in English ^{d2}	n	(valid %)		
Yes	0	(0.0)		
Age at time of interview (yrs) ^{ageint}	mean	(S.D.)	min. - max.	n
Age at diagnosis of child with FAS (yrs) ^{agediag}	37.5	(8.1)	23.1 - 55.4	80
Age at birth of child with FAS (yrs) ^{agefas}	34.7	(7.3)	20.7 - 52.37	80
Age when first started drinking (yrs) ^{a7}	26.9	(5.6)	17.8 - 40.7	80
7 - 9	n	(valid %)		
10 - 12	7	(8.8)		
13 - 15	11	(13.8)		
16 - 19	26	(32.5)		
20 - 29	26	(32.5)		
30	9	(11.2)		
30	1	(1.2)		
Race/ethnicity ^{momrace}	n	(valid %)		
Caucasian	54	(67.5)		
African American	5	(6.3)		
Native American	19	(23.8)		
Hispanic	1	(1.2)		
Canadian Indian	1	(1.2)		
Education: Highest level completed (yrs) ^{school}	n	(valid %)		
<7	4	(5.0)		
7 - 8	14	(17.5)		
9 - 11	31	(38.8)		
12	11	(13.8)		
13 - 16	17	(21.2)		
>16	3	(3.7)		
Earned a GED ^{d6}	n	(valid %)		
Yes	21	(26.3)		
Estimated IQ from Shipley (WAISR) ^{waistr}	n	(valid %)		
57 - 60	1	(1.4)		
61 - 69	7	(9.7)		
70 - 85	20	(27.8)		
86 - 100	24	(33.3)		
101 - 120	20	(27.8)		
Mean	mean	(S.D.)	min. - max.	n
	90.9	(15.2)	57 - 120	72

Table V.1 (cont.). Maternal Sociodemographics Questionnaire: *Marital status, religion, transportation.*

Characteristic	n = 80			
Marital status at time of interview ^{d17}	n	(valid %)		
Married	17	(21.3)		
Separated	10	(12.5)		
Divorced	17	(21.3)		
Widowed	1	(1.2)		
Living with a partner	23	(28.7)		
Single, never married	12	(15.0)		
Marital status at time of the birth of the child with FAS ^{d18}	n	(valid %)		
Married	23	(28.8)		
Separated	6	(7.5)		
Divorced	7	(8.8)		
Widowed	0	(0.0)		
Living with a partner	27	(33.7)		
Single, never married	17	(21.2)		
Total number of times reported ^{d16}	mean	(S.D.)	min. - max.	n
Married	1.3	(1.4)	0 - 8	80
Separated	1.0	(1.5)	0 - 8	79
Divorced	0.9	(1.2)	0 - 7	80
Widowed	0.1	(0.3)	0 - 2	80
Living with a partner	2.8	(2.2)	0 - 12	80
Religious affiliation ^{d20}	n	(valid %)		
None	29	(36.3)		
Catholic	8	(10.0)		
Protestant	13	(16.3)		
Christian	10	(12.5)		
Pentecostal	3	(3.8)		
Quaker	1	(1.2)		
Jewish	1	(1.2)		
Other	15	(18.7)		
Usual mode of transportation at time of interview ^{d19}	n	(valid %)		
Drives own car	39	(48.8)		
Drives a friend's or relative's car	4	(5.0)		
Receives rides from friends/relatives	12	(15.0)		
Takes a bus	16	(20.0)		
Walks	5	(6.2)		
Other	4	(5.0)		

Table V.2. Maternal Sociodemographics Questionnaire: *Home environment, household membership.*

Characteristic	n = 80			
Residence at time of interview ^{d21}	n	(valid %)		
Rural	21	(26.3)		
Urban	46	(57.5)		
Suburbs	7	(8.8)		
On a reservation	3	(3.7)		
Other	3	(3.7)		
Type and stability of housing at time of interview ^{d22}	n	(valid %)		
Permanent, stable	65	(81.3)		
Transient, emergency shelters	4	(5.0)		
Living with friends or relatives	7	(8.8)		
Homeless (without shelter)	0	(0.0)		
Jail, long-term	2	(2.5)		
Transitional drug-free housing	1	(1.2)		
Other	1	(1.2)		
Stability of housing at birth of child with FAS ^{d23}	n	(valid %)		
Permanent, stable	48	(60.0)		
Transient, emergency shelters	5	(6.2)		
Living with friends or relatives	22	(27.4)		
Homeless (without shelter)	1	(1.3)		
Jail, long-term	1	(1.3)		
Transitional drug-free housing	1	(1.3)		
Other	2	(2.5)		
Number of times moved in the last year ^{d25}	n	(valid %)		
Never	42	(53.2)		
Once	18	(22.8)		
2-5 times	18	(22.8)		
> 5 times	1	(1.2)		
Mean	mean	(S.D.)	min. - max.	n
	1.0	(1.5)	0 - 7	79
Number of times moved in the last three years ^{d26}	n	(valid %)		
Never	19	(24.4)		
Once	26	(33.3)		
2-5 times	24	(30.8)		
6-10 times	5	(6.4)		
> 10 times	4	(5.1)		
Mean	mean	(S.D.)	min. - max.	n
	2.5	(3.7)	0 - 20	78

Table V.2 (cont.). Maternal Sociodemographics Questionnaire: *Home environment, household membership.*

Characteristic	n = 80	
Who do you live with now (at time of interview)? ^{d39} (Can select >1 choice.)	n	(valid %)
Alone	11	(13.8)
My children	46	(57.5)
Friends	5	(6.3)
My parents	4	(5.0)
Husband/boyfriend/partner	48	(60.0)
Grandparents	0	(0.0)
Other family	13	(16.3)
Other	9	(11.3)
Who did you live with at the time of the birth ^{d41} of the child with FAS? (Can select > 1 choice.)	n	(valid %)
Alone	7	(8.8)
My children	43	(53.8)
Friends	6	(7.5)
My parents	14	(17.5)
Husband/boyfriend/partner	49	(61.3)
Grandparents	2	(2.5)
Other family	17	(21.3)
Other	4	(5.0)

Table V.3. Maternal Sociodemographics Questionnaire: *Employment, income and public assistance.*

Characteristic	n = 80	
Ever been employed ^{d42}	n	(valid %)
Yes	74	(92.5)
Employed at time of interview ^{d44}	n	(valid %)
Yes	27	(36.5)
Employed at time of birth of child with FAS ^{d46}	n	(valid %)
No	52	(74.3)
Yes	18	(25.7)
Main source of household income at time of interview ^{d47}	n	(valid %)
None	3	(3.7)
Your own employment	15	(18.8)
Husband or partner's employment	9	(11.3)
Parents and/or family support	3	(3.7)
Public assistance	18	(22.5)
Unemployment insurance/social security	27	(33.8)
Other	5	(6.2)
Main source of household income during pregnancy of child born with FAS ^{d48}	n	(valid %)
None	1	(1.2)
Your own employment	7	(8.7)
Husband or partner's employment	19	(23.8)
Parents and/or family support	2	(2.5)
Public assistance	43	(53.8)
Unemployment insurance/social security	3	(3.8)
Family Independence Program	0	(0.0)
Other	5	(6.2)
Self-classification of health status at time of interview ^{d57}	n	(valid %)
Excellent	14	(17.5)
Good	36	(45.0)
Fair	17	(21.3)
Poor	13	(16.2)
Self-classification of health status at birth of the child with FAS ^{d58}	n	(valid %)
Excellent	8	(10.0)
Good	27	(33.8)
Fair	14	(17.5)
Poor	30	(37.5)
Unknown	1	(1.2)

Table V.3(cont.). Maternal Sociodemographics Questionnaire: *Employment, income and public assistance.*

Characteristic	n = 80	
Has a bank account now? <i>(at the time of the interview)</i> ^{d49}	n	(valid %)
Yes	39	(49.4)
Had a bank account during pregnancy with child with FAS ^{d50}	n	(valid %)
Yes	23	(28.8)
Gross yearly household income at time of interview ^{d51}	n	(valid %)
Less than \$10,000	47	(58.8)
\$10,000 to \$29,999	24	(30.0)
\$30,000 to \$49,999	4	(5.0)
\$50,000 to \$69,999	3	(3.7)
\$70,000 or more	2	(2.5)
Gross yearly household income at birth of child with FAS ^{d52}	n	(valid %)
Less than \$10,000	62	(77.5)
\$10,000 to \$29,999	14	(17.5)
\$30,000 to \$49,999	3	(3.8)
\$50,000 to \$69,999	1	(1.2)
\$70,000 or more	0	(0.0)
Types of public assistance being used at time of interview ^{d59} <i>(Can select > 1 choice.)</i>	n	(valid %)
Aid Families Dependent Child./welfare	27	(33.8)
Food stamps	40	(50.0)
Medicaid/medical assistance	50	(62.5)
Housing assistance	17	(21.3)
Low-income energy assistance	14	(17.5)
WIC	13	(16.3)
SSI	35	(43.8)
Other	13	(16.3)
Other	1	(1.3)
Types of public assistance being used at birth of child with FAS ^{d60} <i>(Can select > 1 choice.)</i>	n	(valid %)
Aid Families Dependent Child./welfare	51	(64.6)
Food stamps	50	(63.3)
Medicaid/medical assistance	55	(69.6)
Housing assistance	12	(15.2)
Low-income energy assistance	15	(19.0)
WIC	53	(67.1)
SSI	4	(5.1)
Other	4	(5.1)

Table V.3 (cont.). Maternal Sociodemographics Questionnaire: *Employment income, and public assistance.*

Characteristic	n = 80			
	<u>Needed</u>		<u>Had sufficient access to</u>	
	n	(valid %)	n	(valid %)
Have you <u>ever</u> needed any of the following services? ^{d53}				
<u>If so</u> , did you have sufficient access to it at the time you needed it? ^{d54}				
Medical care.....	80	(100.0)	63	(78.8)
Medical insurance.....	77	(96.3)	46	(57.5)
Prenatal care.....	80	(100.0)	70	(87.5)
Mental health services.....	53	(66.3)	34	(42.5)
Birth control services.....	72	(90.0)	58	(72.5)
Public health nurse.....	51	(63.8)	45	(56.3)
Public housing.....	60	(75.0)	22	(27.5)
Food donations or assistance.....	74	(92.5)	60	(75.0)
Clothing donations.....	49	(61.3)	34	(42.5)
Emergency bill-paying services.....	69	(86.3)	43	(53.8)
Support groups (social, church group, etc.).....	64	(80.0)	47	(58.8)
Vocational classes or job training.....	64	(80.0)	41	(51.3)
Childbirth or parenting classes.....	60	(75.0)	47	(58.8)
Legal assistance.....	68	(85.0)	41	(51.3)
Domestic violence services.....	54	(67.5)	36	(45.0)
Sexual assault services.....	30	(37.5)	18	(22.5)

Did you need any of the following services around the time of the birth of the child with FAS? ^{d55}

If so, did you have sufficient access to it at the time you needed it? ^{d56}

	<u>Needed</u>		<u>Had sufficient access to</u>	
	n	(valid %)	n	(%)
Medical care.....	77	(97.5)	65	(82.3)
Medical insurance.....	75	(94.9)	61	(77.2)
Prenatal care.....	76	(96.2)	61	(77.2)
Mental health services.....	30	(38.0)	12	(15.2)
Birth control services.....	43	(54.4)	33	(41.8)
Public health nurse.....	40	(50.6)	34	(43.0)
Public housing.....	26	(32.9)	14	(17.7)
Food donations or assistance.....	50	(63.3)	41	(51.9)
Clothing donations.....	32	(40.5)	26	(32.9)
Emergency bill paying services.....	33	(41.8)	19	(24.1)
Support groups (social, church group, etc.).....	37	(46.8)	17	(21.5)
Vocational classes or job training.....	19	(24.1)	7	(8.9)
Childbirth or parenting classes.....	45	(57.0)	28	(35.4)
Legal assistance.....	25	(31.6)	10	(12.7)
Domestic violence services.....	28	(35.4)	7	(8.9)
Sexual assault services.....	8	(10.1)	4	(5.1)

V.C. Maternal Social Experiences

Table V.4. Maternal Sociodemographics Questionnaire: *Parental relationships.*

Characteristic	n = 80	
Did you ever have a stepmother or adoptive mother? ^{d65}	n	(valid %)
Yes	24	(30.0)
Did your birth mother live with you until you were 16? ^{d61}	n	(valid %)
Yes	53	(66.3)
If your birth mother did not live with you until 16, was it due to ^{d62}	n	(valid %)
Illness	1	(3.7)
Separation/divorce	4	(14.8)
Death	4	(14.8)
Other	19	(66.7)
Did your birth father live with you until you were 16? ^{d63}	n	(valid %)
Yes	32	(40.0)
If your birth father did not live with you until 16, was it due to ^{d64}	n	(valid %)
Illness	0	(0.0)
Separation/divorce	21	(42.9)
Death	7	(14.2)
Other	21	(42.9)
Did you ever have a stepfather or adoptive father? ^{d66}	n	(valid %)
Yes	35	(43.8)
Did you ever have foster parents? ^{d6}	n	(valid %)
Yes	19	(23.8)
Did you ever live in a group home? ^{d68}	n	(valid %)
Yes	14	(17.5)
Were you ever in a juvenile detention facility? ^{d69}	n	(valid %)
Yes	28	(35.0)

Table V.4 (cont.). Maternal Sociodemographics Questionnaire: *Parental relationships*.

Characteristic	n = 80	
On average, before age 8, how much did you feel your father/stepfather/foster father loved you and cared for you? ^{d70}	n	(valid %)
Not at all	23	(29.9)
A little bit	7	(9.1)
An average amount	14	(18.2)
Above average	1	(1.2)
Very much	32	(41.6)
On average, before age 8, how much did you feel your mother/stepmother/foster mother loved you and cared for you? ^{d71}	n	(valid %)
Not at all	6	(7.6)
A little bit	9	(11.4)
An average amount	20	(25.3)
Above average	3	(3.8)
Very much	41	(51.9)
On average, from ages 8–16, how much did you feel your father/stepfather/foster father loved you and cared for you? ^{d72}	n	(valid %)
Not at all	22	(27.8)
A little bit	13	(16.5)
An average amount	18	(22.8)
Above average	2	(2.5)
Very much	24	(30.4)
On average, from ages 8–16, how much did you feel your mother/stepmother/foster mother loved you and cared for you? ^{d73}	n	(valid %)
Not at all	10	(12.5)
A little bit	6	(7.5)
An average amount	21	(26.2)
Above average	6	(7.5)
Very much	37	(46.3)

Table V.5. Maternal Sociodemographics Questionnaire: *Negative childhood and adult experiences.*

Characteristic	n = 80	
Were you ever involved in CPS as a child? ^{d74}	n	(valid %)
No	61	(76.3)
Yes	18	(22.5)
Unknown	1	(1.2)
Have any of your birth children ever been in foster care or involved in CPS? ^{d75}	n	(valid %)
No	16	(20.0)
Yes	64	(80.0)
When you were a child (<17 yrs), were you sexually abused? ^{d76}	n	(valid %)
Never	34	(42.5)
Yes, once	3	(3.7)
Yes, a few times	13	(16.3)
Yes, many times	27	(33.8)
Unknown	3	(3.7)
When you were a child (<17 yrs), were you physically abused? ^{d77}	n	(valid %)
Never	43	(53.8)
Yes, once	3	(3.8)
Yes, a few times	11	(13.7)
Yes, many times	23	(28.7)
When you were a child (<17 yrs), were you emotionally or psychologically abused? ^{d78}	n	(valid %)
Never	21	(26.3)
Yes, once	0	(0.0)
Yes, a few times	9	(11.2)
Yes, many times	50	(62.5)
Overall, how would you rate your childhood? ^{d79}	n	(valid %)
1. Very unhappy	20	(25.3)
2.	16	(20.3)
3. Average	24	(30.4)
4.	8	(10.1)
5. Very happy	11	(13.9)

Table V.5 (cont.). Maternal Sociodemographics Questionnaire: *Negative childhood and adult experiences.*

Characteristic	n = 80	
As an adult (≥ 17 yrs), were you ever sexually abused? ^{d80}	n	(valid %)
Never	39	(48.8)
Yes, once	15	(18.7)
Yes, a few times	15	(18.7)
Yes, many times	11	(13.8)
As an adult (≥ 17 yrs), were you ever physically abused? ^{d81}	n	(valid %)
Never	12	(15.0)
Yes, once	4	(5.0)
Yes, a few times	17	(21.3)
Yes, many times	47	(58.7)
As an adult (≥ 17 yrs), were you ever emotionally or psychologically abused? ^{d82}	n	(valid %)
Never	11	(13.9)
Yes, once	2	(2.5)
Yes, a few times	14	(17.8)
Yes, many times	52	(65.8)
Tragic life events ^{tragic_1-11} (<i>Can report > 1 answer.</i>)	n	(valid %)
Victim of sexual abuse	37	(57.8)
Assaulted, tortured	24	(37.5)
Death in family: accidental, murder, suicide, suicide attempt	10	(15.6)
Family member was an accessory to murder	5	(7.8)
Child was assaulted	4	(6.3)
Witnessed abuse or murder	2	(3.1)
Kidnapped	1	(1.6)
Suicide attempt	1	(1.6)
Perpetrator of assault	1	(1.6)

Table V.6. Maternal SSQSR Questionnaire: *Level of satisfaction with support network.* *

Question	Level of Satisfaction (n = 80)					
	Satisfied			Dissatisfied		
	Very n (valid %)	Fairly n (valid %)	Little n (valid %)	Little n (valid %)	Fairly n (valid %)	Very n (valid %)
1. Whom can you really count on to be dependable when you need help? ^{ssq2}	55 (68.8)	10 (12.5)	4 (5.0)	4 (5.0)	3 (3.7)	4 (5.0)
2. Whom can you really count on to help you feel more relaxed when you are under pressure? ^{ssq4}	55 (68.8)	13 (16.3)	1 (1.2)	1 (1.2)	2 (2.5)	8 (10.0)
3. Who accepts you totally, including both your worst and your best points? ^{ssq6}	56 (70.0)	12 (15.0)	3 (3.7)	4 (5.0)	2 (2.5)	3 (3.8)
4. Whom can you really count on to care about you, regardless of what is happening to you? ^{ssq8}	61 (76.3)	6 (7.5)	4 (5.0)	1 (1.2)	1 (1.2)	7 (8.8)
5. Whom can you really count on to help you feel better when you are feeling generally down-in-the-dumps? ^{ssq10}	54 (67.5)	14 (17.5)	2 (2.5)	3 (3.7)	0 (0.0)	7 (8.8)
6. Whom can you count on to console you when you are very upset? ^{ssq12}	57 (71.3)	10 (12.5)	1 (1.2)	1 (1.2)	2 (2.5)	9 (11.3)

SSQS Score (mean satisfaction Likert score across all 6 questions) ^{ssqs}	mean	(S.D.)	min. - max.	n		
	5.2	(1.4)	0.5 - 6.0	80		
SSQN Score (total number of people in support network) ^{ssqn}	mean	(S.D.)	min. - max.	n		
(Note: this method of scoring is flawed. A single individual can be counted up to 6 times.)	14.9	(11.6)	0 - 58	80		

* Questionnaire Instructions: Each question has 2 parts. For the first part, list all people you know, excluding yourself, whom you can count on for help or support in the manner described. Give the persons' relationship to you. For the second, rank how satisfied you are with the level of overall support you have.

V.D. Maternal Psychiatric Comorbidities

Table V.7. Maternal Lifetime Mental Health Issues.

Disorder	n = 80			
Screened positive on the Quick Diagnostic Interview Schedule				
Panic <small>qdpanic</small>	n	(valid %)		
Yes	16	(20.3)		
No	63	(79.7)		
Age (yrs) at onset among those with the disorder <small>recpan</small>	mean	(S.D.)	min. - max.	n
	21.0	(11.4)	4 - 39	16
Generalized Anxiety <small>qddenanx</small>	n	(valid %)		
Yes	27	(34.2)		
No	52	(65.8)		
Age (yrs) at onset among those with the disorder <small>recgad</small>	mean	(S.D.)	min. - max.	n
	20.7	(10.1)	3 - 37	27
Phobia - Agoraphobia <small>qdagor</small>	n	(valid %)		
Yes	29	(36.7)		
No	50	(63.3)		
Age (yrs) at onset among those with the disorder <small>recagp</small>	mean	(S.D.)	min. - max.	n
	22.2	(10.3)	2 - 38	29
Phobia - Social <small>qdsocpho</small>	n	(valid %)		
Yes	34	(43.0)		
No	45	(57.0)		
Age (yrs) at onset among those with the disorder <small>recsep</small>	mean	(S.D.)	min. - max.	n
	13.9	(7.7)	2 - 38	34
Phobia - Simple <small>qdsimpho</small>	n	(valid %)		
Yes	35	(44.3)		
No	44	(55.7)		
Age (yrs) at onset among those with the disorder <small>recsmp</small>	mean	(S.D.)	min. - max.	n
	11.4	(10.5)	2 - 41	35
Post-Traumatic Stress <small>qdptsd</small>	n	(valid %)		
Yes	61	(77.2)		
No	18	(22.8)		
Age (yrs) at onset among those with the disorder <small>recpts</small>	mean	(S.D.)	min. - max.	n
	18.9	(9.4)	2 - 41	61

Table V.7 (cont.). Maternal Lifetime Mental Health Issues.

Disorder	n = 80			
Screened positive on the Quick Diagnostic Interview Schedule (cont.)				
Major Depressive Episode <small>qddepres</small>	n	(valid %)		
Yes	47	(59.5)		
No	32	(40.5)		
Age (yrs) at onset among those with the disorder <small>recdep</small>	mean	(S.D.)	min. - max.	n
	18.1	(9.6)	3 - 38	47
Manic Episode / Bipolar Disorder <small>qdmaia</small>	n	(valid %)		
Yes	17	(21.5)		
No	62	(78.5)		
Age (yrs) at onset among those with the disorder <small>reman</small>	mean	(S.D.)	min. - max.	n
	18.5	(9.3)	5 - 36	17
Schizophrenia / Schizophreniform <small>qdschiz</small>	n	(valid %)		
Yes	3	(7.0)		
No	40	(93.0)		
Age (yrs) at onset among those with the disorder <small>reschiz</small>	mean	(S.D.)	min. - max.	n
	20.7	(16.6)	5 - 38	3
Anorexia <small>qdanorex</small>	n	(valid %)		
Yes	0	(0.0)		
No	79	(100.0)		
Age (yrs) at onset among those with the disorder <small>recanr</small>	mean	(S.D.)	min. - max.	n
	0	(0.0)	--	--
Bulimia <small>qdbulim</small>	n	(valid %)		
Yes	10	(12.7)		
No	69	(87.3)		
Age (yrs) at onset among those with the disorder <small>rebul</small>	mean	(S.D.)	min. - max.	n
	22.0	(8.3)	7 - 39	10
Alcohol <small>qdalcabu</small>	n	(valid %)		
Yes	68	(86.1)		
No	11	(13.9)		
Age (yrs) at onset among those with the disorder <small>recalc</small>	mean	(S.D.)	min. - max.	n
	19.7	(6.2)	8 - 34	68
Antisocial Personality <small>qdaniso</small>	n	(valid %)		
Yes	31	(39.2)		
No	48	(60.8)		
Age (yrs) at onset among those with the disorder <small>recasp</small>	mean	(S.D.)	min. - max.	n
	14.2	(5.9)	4 - 30	31

Table V.7 (cont.). Maternal Lifetime Mental Health Issues.

Disorder	n = 80	
Total number of comorbidities/disorders per woman <small>comorbid</small>	n	(valid %)
0 disorders	3	(3.8)
1 disorder	3	(3.8)
2 disorders	9	(11.2)
3 disorders	14	(17.5)
4 disorders	13	(16.2)
5 disorders	6	(7.4)
6 disorders	12	(15.0)
7 disorders	8	(10.0)
8 disorders	6	(7.5)
9 disorders	3	(3.8)
10 disorders	3	(3.8)
Currently dealing with mental health issues <small>mhlthtx4</small>	n	(valid %)
Yes	38	(47.5)
Suspected	8	(10.0)
Unknown	33	(41.3)
Intermittent	1	(1.2)
Currently receiving mental health treatment <small>mhlthtx2</small>	n	(valid %)
Yes	30	(37.5)
No	42	(52.5)
Suspected	2	(2.5)
Unknown	6	(7.5)
Estimated age of onset of mental health issues <small>mhlthtx3</small>	n	(valid %)
None	4	(5.0)
Child (0-8)	33	(41.2)
Adolescent (9-17)	31	(38.8)
Adult (18+)	10	(12.5)
Unknown	2	(2.5)

Table V.7 (cont.) Maternal Lifetime Mental Health Issues.

Disorder	n = 80
Indications that subject may have ever received mental health treatment* <small>mhlthtx1</small>	
	n (valid %)
b.....	3 (5.9)
c.....	1 (2.0)
d.....	5 (9.8)
e.....	1 (2.0)
f.....	11 (21.6)
g.....	2 (3.9)
i.....	3 (5.9)
l.....	1 (2.0)
bf.....	3 (5.9)
bj.....	1 (2.0)
cl.....	1 (2.0)
df.....	6 (11.8)
dk.....	1 (2.0)
fh.....	1 (2.0)
fi.....	1 (2.0)
bfi.....	1 (2.0)
dfg.....	1 (2.0)
dfh.....	1 (2.0)
dfj.....	1 (2.0)
bcdf.....	1 (2.0)
bcdi.....	1 (2.0)
defj.....	1 (2.0)
bcfij.....	1 (2.0)
bcfik.....	1 (2.0)
none reported.....	1 (2.0)

* b = inpatient mental health treatment; c = outpatient mental health treatment; d = individual mental health counseling/therapy; e = family mental health counseling/therapy; f = mental health medications; g = support group(s), not AA; h = hospitalized for mental health; i = public assistance for psychiatric disability; j = group counseling; k = home visit--mental health, case management; l = referred to psychiatrist.

V.E. Maternal Reproductive History and Family Planning

Table V.8. Maternal Sociodemographics Questionnaire: *Reproduction history, family planning.*

Characteristic	n = 80			
Parity at time of interview <small>livebirt</small>	n	(valid %)		
1	6	(7.5)		
2	23	(28.8)		
3	18	(22.5)		
4	15	(18.8)		
5	10	(12.5)		
6	3	(3.7)		
7	3	(3.7)		
8	2	(2.5)		
Mean	mean	(S.D.)	min. - max.	n
	3.4	(1.6)	1 - 8	80
Total number of children born to the 80 women <small>livebirt</small>	n			
	272			
Gravidity at time of interview <small>concept</small>	n	(valid %)		
1	4	(5.0)		
2-3	31	(38.8)		
4-5	22	(27.5)		
6+	23	(28.7)		
Mean	mean	(S.D.)	min. - max.	n
	4.4	(2.1)	1 - 9	80
Parity of child with FAS <small>faslive</small>	n	(valid %)		
1	17	(21.2)		
2-3	47	(58.8)		
4-5	11	(13.8)		
6+	5	(6.2)		
Mean	mean	(S.D.)	min. - max.	n
	2.6	(1.5)	1 - 8	80
Gravidity of child with FAS <small>fasconc</small>	n	(valid %)		
1	15	(18.7)		
2-3	35	(43.8)		
4-5	19	(23.8)		
6+	11	(13.7)		
Mean	mean	(S.D.)	min. - max.	n
	3.3	(1.9)	1 - 9	80
Number of alcohol exposed children born after the child with FAS	n			
	61			

Table V.8 (cont.). Maternal Sociodemographics Questionnaire: *Reproduction history, family planning.*

Characteristic	n = 80			
Trimester 1 spontaneous abortions at time of interview _{spont1}	n	(valid %)		
0	57	(71.3)		
1	17	(21.3)		
2	3	(3.7)		
3	3	(3.7)		
Mean	mean	(S.D.)	min. - max.	n
	0.4	(0.7)	0 - 3	80
Trimester 2 miscarriages at time of interview _{spont2}	n	(valid %)		
0	75	(93.8)		
1	4	(5.0)		
2	1	(1.2)		
Mean	mean	(S.D.)	min. - max.	n
	0.1	(0.3)	0 - 2	80
Trimester 3 still births at time of interview _{spont3}	n	(valid %)		
0	77	(96.3)		
1	3	(3.7)		
Mean	mean	(S.D.)	min. - max.	n
	0.0	(0.2)	0 - 1	80
Pregnancy terminations at time of interview _{termin}	n	(valid %)		
0	55	(68.8)		
1	15	(18.7)		
2	8	(10.0)		
3	2	(2.5)		
Mean	mean	(S.D.)	min. - max.	n
	0.5	(0.8)	0 - 3	80

Table V.8 (cont.). Maternal Sociodemographics Questionnaire: *Reproduction history, family planning.*

Characteristic	n = 80			
	mean	(S.D.)	min. - max.	n
Age at first pregnancy _{agepg1}	19.6	(3.8)	12.5 - 30.0	80
Age at first live birth _{firstliv}	20.2	(4.1)	13 - 32	80
Age at birth of child with FAS _{agefas}	26.9	(5.6)	17.8 - 40.7	80
Number of unplanned pregnancies per woman _{unplan}	3.3	(2.0)	0 - 9	80
Proportion of unplanned pregnancies per woman _{unplanp}	77.2	(29.2)	0 - 100	80
Number of unplanned live births per woman _{unplive}	2.5	(1.7)	0 - 8	80
Proportion of unplanned live births per woman _{unplivep}	73.3	(32.9)	0 - 100	80
Number of pregnancies per woman with no birth control _{nobc}	3.5	(2.1)	0 - 9	80
Proportion of pregnancies per woman with no birth control _{nobcp}	80.9	(27.6)	0 - 100	80
Number of pregnancies exposed to alcohol per woman _{alconc}	3.0	(1.8)	0 - 8	80
Proportion of pregnancies exposed to alcohol per woman _{alconc p}	73.2	(30.6)	0 - 100	80
Number of live births exposed to alcohol per woman _{alclive}	2.4	(1.3)	0 - 6	80
Proportion of live births exposed to alcohol per woman _{alclivep}	75.9	(29.6)	0 - 100	80

Table V.8 (cont.). Maternal Sociodemographics Questionnaire: *Reproduction history, family planning.*

Characteristic	n = 80			
How old were you when you first started using birth control? ^{d35}	mean	(S.D.)	min. - max.	n
Years	18.8	(4.8)	12 - 36	80
What was the first form of birth control you used? ^{d36}	n	(valid %)		
Menopause	0	(0.0)		
Hysterectomy	1	(1.3)		
Tubal ligation	3	(3.7)		
Diaphragm	2	(2.5)		
IUD	1	(1.3)		
Cervical cap	0	(0.0)		
Pills	50	(62.4)		
Norplant	0	(0.0)		
Depo provera	1	(1.3)		
Condoms	11	(13.7)		
Vasectomy	0	(0.0)		
Abortion	0	(0.0)		
Rhythm method	2	(2.5)		
Withdrawal	1	(1.3)		
No method	1	(1.3)		
Foam	7	(8.7)		
If birth control were available to you free of charge, which method would you prefer to use now (or back when you were fertile?) ^{d38}	n	(valid %)		
Tubal ligation	11	(13.9)		
Diaphragm	0	(0.0)		
IUD	3	(3.8)		
Cervical cap	2	(2.5)		
Pills	8	(10.1)		
Norplant	13	(16.5)		
Depo provera	25	(31.6)		
Condoms	5	(6.3)		
Vasectomy	2	(2.5)		
Abortion	0	(0.0)		
Rhythm method	1	(1.4)		
Withdrawal	0	(0.0)		
No method	6	(7.6)		
Foam	3	(3.8)		
Do you feel there was a time in your life when alcohol use put you at risk for getting pregnant? ^{d37}	n	(valid %)		
No	26	(32.5)		
Yes	53	(66.3)		
Uncertain	1	(1.2)		

Table V.8 (cont.). Maternal Sociodemographics Questionnaire: *Reproduction history, family planning.*

Characteristic	n = 80			
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Number of women who have ever used each of the following types of birth control <i>(Can select > 1 choice.)</i>	n	(valid %)
Diaphragm <small>d34a5</small>	14	(17.5)
IUD <small>d34a6</small>	20	(25.0)
Cervical cap <small>d34a7</small>	1	(1.3)
Pills <small>d34a9</small>	71	(88.8)
Norplant <small>d34a10</small>	7	(8.8)
Depo provera <small>d34a11</small>	17	(21.3)
Tubal ligation <small>d34a3</small>	40	(50.0)
Condoms <small>d34a8</small>	57	(71.3)
Vasectomy <small>d34a4</small>	18	(22.5)
Abortion <small>d34a12</small>	25	(31.3)
Rhythm method <small>d34a13</small>	9	(11.3)
Withdrawal <small>d34a14</small>	25	(31.6)
No method <small>d34a16</small>	77	(96.3)
Abstinence <small>d34a15</small>	42	(53.2)

Proportion of pregnancies for each woman in which the following types of birth control were used	mean	(S.D.)	min. - max.	n
Diaphragm <small>diagppp</small>	0.4	(2.5)	0 - 20	80
IUD <small>iudppp</small>	0.9	(4.7)	0 - 33	80
Cervical cap <small>cappppp</small>	0.0	(0.0)	0 - 0	80
Pills <small>pillppp</small>	11.6	(19.5)	0 - 100	80
Norplant <small>norpppp</small>	0.0	(0.0)	0 - 0	80
Depo provera <small>depoppp</small>	1.0	(7.7)	0 - 67	80
Condoms <small>condppp</small>	2.5	(8.7)	0 - 50	80
Rhythm method <small>rhytppp</small>	0.8	(6.7)	0 - 60	80
Withdrawal <small>withppp</small>	0.0	(0.0)	0 - 0	80
No method <small>nobcp</small>	80.9	(27.6)	0 - 120	80

Table V.8a. Maternal Sociodemographics Questionnaire: *Birth control methods — Diaphragm.*

Characteristic	n = 80			
Have you ever used this form of birth control? d34a5	n	(valid %)		
Never used	66	(82.5)		
Yes, regularly use	10	(12.5)		
Yes, intermittently	4	(5.0)		
How old were you when you first started using this method? d34c5	mean	(S.D.)	min. - max.	n
Years	22.1	(5.1)	16 - 32	14
Never used it d34a5 (n)				66
How old were you when you last used this method? d34cc5	mean	(S.D.)	min. - max.	n
Years	23.5	(5.5)	16 - 34	13
Have not stopped using it (n)				0
Never used it d34a5 (n)				66
Did you have to pay for it yourself? d34d5	n	(valid %)		
No	9	(64.3)		
Yes	4	(28.6)		
Uncertain	1	(7.1)		
Did you ever get pregnant when using it? d34e5	n	(valid %)		
No	11	(78.6)		
Yes	3	(21.4)		
Uncertain	0	(0.0)		
Are you currently using it? d34f5	n	(valid %)		
Yes	0	(0.0)		
If you used to use it and stopped, why did you stop? d34g5 (Can select > one reason.)	n	(valid %)		
Did not work	2	(14.3)		
Did not like it	6	(42.9)		
Lost access to it	0	(0.0)		
Could not afford it	0	(0.0)		
Unable to conceive	0	(0.0)		
Changed with new partner	0	(0.0)		
Concern about health	1	(7.1)		
No partner	1	(7.1)		
Changed to another method	2	(14.3)		
Planned pregnancy	0	(0.0)		
Not applicable	0	(0.0)		
Other	2	(14.3)		
If it were available to you at no cost, would you be open to using it now? d34h5	n	(valid %)		
No	68	(85.0)		
Yes	5	(6.3)		
Uncertain	7	(8.7)		
Not applicable	0	(0.0)		

Table V.8b. Maternal Sociodemographics Questionnaire: *Birth control methods — IUD.*

Characteristic	n = 80			
Have you ever used this form of birth control? d34a6	n	(valid %)		
Never used	60	(75.0)		
Yes, regularly use	19	(23.8)		
Yes, intermittently	1	(1.2)		
How old were you when you first started using this method? d34c6	mean	(S.D.)	min. - max.	n
Years	22.9	(4.5)	16 - 34	20
Never used it d34a6 (n)				60
How old were you when you last used this method? d34cc6	mean	(S.D.)	min. - max.	n
Years	23.1	(3.9)	16 - 32	19
Have not stopped using it (n)				1
Never used it d34a6 (n)				60
Did you have to pay for it yourself? d34d6	n	(valid %)		
No	18	(90.0)		
Yes	2	(10.0)		
Uncertain	0	(0.0)		
Did you ever get pregnant when using it? d34e6	n	(valid %)		
No	16	(80.0)		
Yes	4	(20.0)		
Uncertain	0	(0.0)		
Are you currently using it? d34f6	n	(valid %)		
Yes	1	(1.3)		
If you used to use it and stopped, why did you stop? d34g6	n	(valid %)		
(Can select > one reason.)				
Did not work	4	(20.0)		
Did not like it	0	(0.0)		
Lost access to it	0	(0.0)		
Could not afford it	0	(0.0)		
Unable to conceive	0	(0.0)		
Changed with new partner	0	(0.0)		
Concern about health	13	(65.0)		
No partner	0	(0.0)		
Changed to another method	0	(0.0)		
Planned pregnancy	1	(5.0)		
Not applicable	1	(5.0)		
Other	1	(5.0)		
If it were available to you at no cost, would you be open to using it now? d34h6	n	(valid %)		
No	63	(79.8)		
Yes	8	(10.1)		
Uncertain	8	(10.1)		
Not applicable	0	(0.0)		

Table V.8c. Maternal Sociodemographics Questionnaire: *Birth control methods — Cervical Cap.*

Characteristic	n = 80			
Have you ever used this form of birth control? ^{d34a7}	n	(valid %)		
Never used	79	(98.8)		
Yes, regularly use	1	(1.2)		
Yes, intermittently	0	(0.0)		
How old were you when you first started using this method? ^{d34c7}	mean	(S.D.)	min. - max.	n
Years	36.0	(--)	36 - 36	1
Never used it ^{d34a7} (n)				79
How old were you when you last used this method? ^{d34cc7}	mean	(S.D.)	min. - max.	n
Years	--	(--)	--	0
Have not stopped using it (n)				1
Never used it ^{d34a7} (n)				79
Did you have to pay for it yourself? ^{d34d7}	n	(valid %)		
No	0	(0.0)		
Yes	1	(100.0)		
Uncertain	0	(0.0)		
Did you ever get pregnant when using it? ^{d34e7}	n	(valid %)		
No	1	(100.0)		
Yes	0	(0.0)		
Uncertain	0	(0.0)		
Are you currently using it? ^{d34f7}	n	(valid %)		
Yes	1	(1.3)		
If you used to use it and stopped, why did you stop? ^{d34g7}	n	(valid %)		
(Can select > one reason.)				
Did not work	0	(0.0)		
Did not like it	0	(0.0)		
Lost access to it	0	(0.0)		
Could not afford it	0	(0.0)		
Unable to conceive	0	(0.0)		
Changed with new partner	0	(0.0)		
Concern about health	0	(0.0)		
No partner	0	(0.0)		
Not applicable	1	(0.0)		
Other	0	(0.0)		
If it were available to you at no cost, would you be open to using it now? ^{d34h7}	n	(valid %)		
No	54	(68.4)		
Yes	17	(21.5)		
Uncertain	8	(10.1)		
Not applicable	0	(0.0)		

Table V.8d. Maternal Sociodemographics Questionnaire: *Birth control methods — Condoms.*

Characteristic	n = 80			
Have you ever used this form of birth control? ^{d34a8}	n	(valid %)		
Never used	23	(28.7)		
Yes, regularly use	13	(16.3)		
Yes, intermittently	44	(55.0)		
How old were you when you first started using this method? ^{d34c8}	mean	(S.D.)	min. - max.	n
Years	21.5	(6.3)	12 - 37	56
Never used it ^{d34a8}				23
How old were you when you last used this method? ^{d34cc8}	mean	(S.D.)	min. - max.	n
Years	28.2	(6.4)	16 - 42	32
Have not stopped using it				18
Never used it ^{d34a8}				23
Did you have to pay for it yourself? ^{d34d8}	n	(valid %)		
No	39	(72.2)		
Yes	15	(27.8)		
Uncertain	0	(0.0)		
Did you ever get pregnant when using it? ^{d34e8}	n	(valid %)		
No	42	(76.4)		
Yes	13	(23.6)		
Uncertain	0	(0.0)		
Are you currently using it? ^{d34f8}	n	(valid %)		
Yes	18	(22.5)		
If you used to use it and stopped, why did you stop? ^{d34g8}	n	(valid %)		
(Can select > one reason.)				
Did not work	2	(3.8)		
Did not like it	4	(7.7)		
Lost access to it	0	(0.0)		
Could not afford it	0	(0.0)		
Unable to conceive	0	(0.0)		
Changed with new partner	7	(13.5)		
Concern about health	0	(0.0)		
No partner	8	(15.3)		
Changed to another method	7	(13.5)		
Planned pregnancy	2	(3.8)		
Not applicable	11	(21.2)		
Other	11	(21.2)		
If it was available to you at no cost, would you be open to using it now? ^{d34h8}	n	(valid %)		
No	19	(23.8)		
Yes	54	(67.5)		
Uncertain	7	(8.7)		
Not applicable	0	(0.0)		

Table V.8e. Maternal Sociodemographics Questionnaire: *Birth control methods — The Pill.*

Characteristic	n = 80			
Have you ever used this form of birth control? d34a9	n	(valid %)		
Never used	9	(11.2)		
Yes, regularly use	46	(57.5)		
Yes, intermittently	25	(31.3)		
How old were you when you first started using this method? d34c9	mean	(S.D.)	min. - max.	n
Years	19.1	(4.5)	12 - 37	71
Never used it d34a9				9
How old were you when you last used this method? d34cc9	mean	(S.D.)	min. - max.	n
Years	22.2	(5.82)	14 - 45	67
Have not stopped using it				2
Never used it d34a9				9
Did you have to pay for it yourself? d34d9	n	(valid %)		
No	47	(69.1)		
Yes	20	(29.4)		
Uncertain	1	(1.5)		
Did you ever get pregnant when using it? d34e9	n	(valid %)		
No	47	(68.1)		
Yes	22	(31.9)		
Uncertain	0	(0.0)		
Are you currently using it? d34f9	n	(valid %)		
Yes	2	(2.5)		
If you used to use it and stopped, why did you stop? d34g9 (Can select > one reason.)	n	(valid %)		
Did not work	3	(4.4)		
Did not like it	8	(11.6)		
Lost access to it	1	(1.4)		
Could not afford it	0	(0.0)		
Unable to conceive	1	(1.4)		
Changed with new partner	1	(1.4)		
Concern about health	23	(33.4)		
No partner	5	(7.3)		
Changed to another method	12	(17.4)		
Planned pregnancy	3	(4.4)		
Not applicable	1	(1.4)		
Other	11	(15.9)		
If it was available to you at no cost, would you be open to using it now? d34h9	n	(valid %)		
No	46	(57.5)		
Yes	27	(33.8)		
Uncertain	7	(8.7)		
Not applicable	0	(0.0)		

Table V.8f. Maternal Sociodemographics Questionnaire: *Birth control methods — Norplant.*

Characteristic	n = 80			
Have you ever used this form of birth control? d34a10	n	(valid %)		
Never used	73	(91.3)		
Yes, regularly use	6	(7.5)		
Yes, intermittently	1	(1.2)		
How old were you when you first started using this method? d34c10	mean	(S.D.)	min. - max.	n
Years	26.1	(5.93)	20 - 38	7
Never used it d34a10				73
How old were you when you last used this method? d34cc10	mean	(S.D.)	min. - max.	n
Years	27.8	(7.0)	22 - 38	4
Have not stopped using it				3
Never used it d34a10				73
Did you have to pay for it yourself? d34d10	n	(valid %)		
No	7	(100.0)		
Yes	0	(0.0)		
Uncertain	0	(0.0)		
Did you ever get pregnant when using it? d34e10	n	(valid %)		
No	7	(100.0)		
Yes	0	(0.0)		
Uncertain	0	(0.0)		
Are you currently using it? d34f10	n	(valid %)		
Yes	3	(3.8)		
If you used to use it and stopped, why did you stop? d34g10	n	(valid %)		
(Can select > one reason.)				
Did not work	0	(0.0)		
Did not like it	0	(0.0)		
Lost access to it	0	(0.0)		
Could not afford it	0	(0.0)		
Unable to conceive	0	(0.0)		
Changed with new partner	0	(0.0)		
Concern about health	2	(33.3)		
No partner	0	(0.0)		
Changed to another method	0	(0.0)		
Planned pregnancy	1	(16.7)		
Not applicable	3	(50.0)		
Other	0	(0.0)		
If it was available to you at no cost, would you be open to using it now? d34h10	n	(valid %)		
No	49	(61.3)		
Yes	20	(25.0)		
Uncertain	11	(13.7)		
Not applicable	0	(0.0)		

Table V.8g. Maternal Sociodemographics Questionnaire: *Birth control methods — Depo Provera.*

Characteristic	n = 80			
Have you ever used this form of birth control? d34a11	n	(valid %)		
Never used	63	(78.8)		
Yes, regularly use	11	(13.7)		
Yes, intermittently	6	(7.5)		
How old were you when you first started using this method? d34c11	mean	(S.D.)	min. - max.	n
Years	26.8	(6.6)	17 - 43	17
Never used it d34a11				63
How old were you when you last used this method? d34cc11	mean	(S.D.)	min. - max.	n
Years	28.2	(6.9)	18 - 43	13
Have not stopped using it				4
Never used it d34a11				63
Did you have to pay for it yourself? d34d11	n	(valid %)		
No	16	(100.0)		
Yes	0	(0.0)		
Unknown	0	(0.0)		
Did you ever get pregnant when using it? d34e11	n	(valid %)		
No	14	(87.5)		
Yes	2	(12.5)		
Unknown	0	(0.0)		
Are you currently using it? d34f11	n	(valid %)		
Yes	4	(5.0)		
If you used to use it and stopped, why did you stop? d34g11	n	(valid %)		
(Can select > one reason.)				
Did not work	1	(5.9)		
Did not like it	1	(5.9)		
Lost access to it	0	(0.0)		
Could not afford it	0	(0.0)		
Unable to conceive	0	(0.0)		
Changed with new partner	0	(0.0)		
Concern about health	3	(17.6)		
No partner	1	(5.9)		
Changed to another method	1	(5.9)		
Planned pregnancy	1	(5.9)		
Not applicable	5	(29.4)		
Other	4	(23.5)		
If it was available to you at no cost, would you be open to using it now? d34h11	n	(valid %)		
No	26	(32.5)		
Yes	42	(52.5)		
Uncertain	12	(15.0)		
Not applicable	0	(0.0)		

V.F. Maternal Drug and Alcohol Use

Table V.9. Maternal Alcohol Questionnaire: *Drug and tobacco use.*

Characteristic	n = 80		through 7/31/97	
Drug Use				
	n	Ever ^{a1} (valid %)	Now ^{a3} (valid %)	Around FAS birth ^{a4} (valid %)
Alcohol	80	(100.0)	28 (35.0)	77 (96.3)
Barbituates/sleeping pills	28	(35.0)	0 (0.0)	2 (2.5)
Cocaine/crack	50	(62.5)	2 (2.5)	12 (15.0)
Darvon/prescription pain killers	39	(48.8)	1 (1.3)	1 (1.3)
Heroin/opiates	18	(22.5)	0 (0.0)	6 (7.5)
Inhalants	22	(27.5)	0 (0.0)	1 (1.3)
LSD	35	(43.8)	0 (0.0)	0 (0.0)
Marijuana	64	(80.0)	5 (6.3)	17 (21.3)
Methadone	9	(11.3)	1 (1.3)	2 (2.5)
PCP	16	(20.0)	0 (0.0)	0 (0.0)
Quaaludes	13	(16.3)	0 (0.0)	0 (0.0)
Speed/amphetamines	51	(63.8)	0 (0.0)	4 (5.0)
Valium/tranquilizers	31	(38.8)	0 (0.0)	2 (2.5)
Reported no drug use	not asked	--	48 (60.0)	2 (2.5)
	n	Ever ^{everalcc} (valid %)	Now ^{nowalcc} (valid %)	Around FAS birth ^{FASalcc} (valid %)
Alcohol only	7	8.8	23 28.8	43 53.8
Alcohol and 1 – 3 other drugs	28	35.0	5 6.2	33 41.3
Alcohol and 4 – 6 other drugs	20	25.0	0 0.0	1 1.2
Alcohol and 7 – 9 other drugs	17	21.2	0 0.0	0 0.0
Alcohol and 10 – 12 other drugs	8	10.0	0 0.0	0 0.0
No alcohol, 1 other drug	0	0.0	4 5.0	1 1.2
No alcohol or other drugs	0	0.0	48 60.0	2 2.5

Table V.9 (cont.). Maternal Alcohol Questionnaire: *Drug and tobacco use.*

Characteristic	n = 80		through 7/31/97	
Tobacco Use				
Ever smoked cigarettes ^{a19}	n	(valid %)		
Yes	76	(95.0)		
Age (yrs) when smoking started among those that smoked ^{a20}	mean	(S.D.)	min. - max.	n
	14.8	(3.5)	8 - 25	76
Age (yrs) when smoking stopped among those that smoked ^{a21}	mean	(S.D.)	min. - max.	n
	29.4	(8.9)	18 - 47	20
Smoking at time of interview ^{a22}	n	(valid %)		
Yes	56	(70.0)		
Number of cigarettes smoked per day at time of interview ^{a23}	mean	(S.D.)	min. - max.	n
	14.5	(9.5)	0.01 - 40.0	56

Table V.10. Maternal Alcohol Questionnaire: *Maternal alcohol use history.*

Characteristic	n = 80			
Current classification of alcohol use ^{alestat}	n	(valid %)		
Abstinent	47	(58.8)		
Special occasions only	3	(3.7)		
Social drinking	7	(8.8)		
Problematic drinking	18	(22.5)		
Unknown	5	(6.2)		
Duration of abstinence (years) at time of interview among those who were abstinent ^{abstdury alestat <= 2}	mean	(S.D.)	min. - max.	n
	4.6	(5.4)	0.0 - 22.1	50
Fertility and abstinence status of each woman at the time of the child's FAS diagnosis ^{abstfert}	n	(valid %)		
No Risk				
Not fertile, at risk for drinking (no risk for FAS)	24	(30.0)		
Not fertile, actively drinking (no risk for FAS)	19	(23.8)		
At Risk				
Fertile, at risk for drinking (low risk for FAS)	17	(21.2)		
Fertile and actively drinking (high risk for FAS)	20	(25.0)		
Did either birth parent ever have a problem with alcohol? ^{a5}	n	(valid %)		
Yes	63	(78.8)		
No	17	(21.2)		
Did either of your grandparents ever have a problem with alcohol? ^{a6}	n	(valid %)		
Yes	51	(63.8)		
No	17	(21.2)		
Uncertain	12	(15.0)		

Table V.10 (cont.). Maternal Alcohol Questionnaire: *Maternal alcohol use history.*

Characteristic	n = 80			
Mother's age when she first started drinking alcohol? ^{a7}	mean	(S.D.)	min. - max.	n
	15.1	(4.1)	7 - 30	80
Mother's age range when she was drinking the most?	mean	(S.D.)	min. - max.	n
Age when she started drinking the most ^{a18a}	22.9	(6.7)	10 - 41	78
Age when she stopped drinking the most ^{a18b}	28.0	(7.9)	14 - 53	75
Mother's age when she first tried to stop drinking? ^{agestop1}	mean	(S.D.)	min. - max.	n
	25.8	(7.2)	14.4 - 47.1	74
Years between 1st drink and 1st attempt to stop drinking ^{starstop}	mean	(S.D.)	min. - max.	n
	10.9	(6.8)	0.4 - 30.1	74
Mother's age at birth of child with FAS ^{agefas}	mean	(S.D.)	min. - max.	n
	26.9	(5.6)	17.8 - 40.7	80
Mother's age at start of most successful sobriety attempt ^{age255}	mean	(S.D.)	min. - max.	n
	31.4	(6.8)	19.5 - 52.2	67
Mother's age at diagnosis of child with FAS ^{agediag}	mean	(S.D.)	min. - max.	n
	34.7	(7.3)	20.7 - 52.4	80
Mother's age at time of interview ^{ageint}	mean	(S.D.)	min. - max.	n
	37.5	(8.1)	23.1 - 55.4	80

Table V.10 (cont.). Maternal Alcohol Questionnaire: *Maternal alcohol use just before pregnancy with child with FAS.*

Characteristic	n = 80			
Alcohol consumption just before pregnancy with child with FAS				
Among those who drank, how many drinks did you usually drink on a single drinking occasion? <i>(1 drink = ½ oz absolute alcohol)</i> a13	mean	(S.D.)	min. - max.	n
	18.5	(19.2)	0.0 - 104.0	80
What type of beverage did you drink most often? a14	n	(valid %)		
Ordinary table wine	5	(6.7)		
Fortified wine	3	(4.0)		
Beer	43	(57.3)		
Wine coolers	0	(0.0)		
Liquor	21	(28.0)		
Other	3	(4.0)		
How often did you drink? a15	n	(valid %)		
Daily	35	(46.7)		
A few times a week	16	(21.3)		
Once a week	8	(10.7)		
Once every month or two	3	(4.0)		
Occasional binge (a lot every couple of weeks)	4	(5.3)		
Other	8	(10.7)		
Unknown	1	(1.3)		
What was the most number of drinks that you drank on a single occasion? * <i>(1 drink = ½ oz absolute alcohol)</i> a16	mean	(S.D.)	min. - max.	n
	28.5	(35.9)	3.0 - 260.0	73
*Some interpreted "occasion" to mean a multiple-day binge.				
How often did you drink that many drinks on a single occasion? a17	n	(valid %)		
Daily	12	(16.0)		
A few times a week	16	(21.3)		
Once a week	15	(20.0)		
Once every month or two	9	(12.0)		
Occasional binge (a lot every couple of weeks)	14	(18.7)		
Other	8	(10.7)		
Unknown	1	(1.3)		

Table V.10 (cont.). Maternal Alcohol Questionnaire: *Maternal alcohol use at time of interview.*

Characteristic	n = 80			
Alcohol consumption at time of interview				
How many drinks do you usually drink now ^{a8} on a single drinking occasion? (<i>1 drink = ½ oz absolute alcohol</i>)	mean	(S.D.)	min. - max.	n
	2.9	(6.0)	0.0 - 24.0	79
What type of beverage do you drink most often? ^{a9}	n	(valid %)		
Ordinary table wine	1	(3.6)		
Fortified wine	0	(0.0)		
Beer	18	(64.2)		
Wine coolers	1	(3.6)		
Liquor	7	(25.0)		
Other	1	(3.6)		
How often do you drink? ^{a10}	n	(valid %)		
Daily	2	(7.1)		
A few times a week	6	(21.4)		
Once a week	2	(7.1)		
Once every month or two	7	(25.0)		
Occasional binge (a lot every couple of weeks)	3	(10.8)		
Other	8	(28.6)		
What is the most number of drinks that you drink ^{a11} on a single occasion? (<i>1 drink = ½ oz absolute alcohol</i>)	mean	(S.D.)	min. - max.	n
	11.6	(9.9)	2.0 - 36.0	27
How often do you drink that many drinks on a single occasion? ^{a12}	n	(valid %)		
Daily	3	(11.1)		
A few times a week	2	(7.4)		
Once a week	1	(3.8)		
Once every month or two	7	(25.9)		
Occasional binge (a lot every couple of weeks)	4	(14.8)		
Other	10	(37.0)		

Table V.10 (cont.). Maternal Alcohol Questionnaire: *Maternal perception of alcohol problem and barriers to abstinence.*

Characteristic	n = 80		
Current stage of change ^{stage}	n	(valid %)	
Pre-contemplation ¹	17	(21.3)	
Contemplation ²	7	(8.8)	
Preparation ³	4	(5.0)	
Action ⁴	11	(13.7)	
Maintenance ⁵	32	(40.0)	
Termination ⁶	3	(3.7)	
Unknown	6	(7.5)	
If abstinent for 30 or less days, what was the previous stage of change? ^{stage2}			
	n	(valid %)	
Pre-contemplation	1	(1.2)	
Not applicable	79	(98.8)	
Do you feel you have ever had a problem with alcohol? ^{a24}			
	n	(valid %)	
No	13	(16.2)	
Yes	67	(83.8)	
Have you ever tried to stop or reduce your drinking? ^{a25}			
	n	(valid %)	
No	5	(6.2)	
Yes	75	(93.8)	
Below is a list of reasons that might keep a woman from <u>wanting to reduce her alcohol use</u> . Do any of these apply or use to apply to you? ^{a28}			
	n	(valid %)	Applicable n
You were too depressed to do anything about it ^{a28f}	38	(79.2)	48
You did not think you had a problem ^{a28g}	29	(60.4)	48
You were uncomfortable about having a problem with alcohol ^{a28h}	35	(74.5)	47
Your boyfriend/husband/partner did not want you to ^{a28i}	17	(36.2)	47
Your family or friends did not want you to ^{a28j}	9	(19.6)	46
You did not think it would help ^{a28k}	20	(43.5)	46
You were in an abusive or violent relationship ^{a28l}	33	(71.7)	46
Alcohol helped you cope with life's ups and downs ^{a28m}	43	(93.5)	46

¹ Pre-contemplation: does not recognize behavior as a problem or has no desire to change at this time.

² Contemplation: ambivalent about changing behavior. Starting to recognize there is a problem, but has many reasons why she continues.

³ Preparation: starting to change behaviors (e.g., reducing amount or frequency of use), use methods of support, and seek information. Ambivalence is still present.

⁴ Action: woman is actively changing behavior on her own, in treatment, or in A.A.

⁵ Maintenance: woman has remained abstinent or with minimal use of alcohol for several months to several years.

⁶ Termination: woman has maintained abstinence or non-abusive use for an extended period of time (several years plus) and does not think about it any longer.

Table V.10 (cont.). Maternal Alcohol Questionnaire: *Maternal perception of alcohol problem and barriers to abstinence.*

Characteristic	n = 80
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Below is a list of reasons that might keep a woman from seeking alcohol treatment. Do any of these apply or use to apply to you? ^{a29}

	n	(valid %)	Applicable n
Your boyfriend/husband/partner did not want you to go ^{a29a}	17	(38.6)	44
Your family or friends did not want you to go ^{a29b}	4	(9.1)	44
There was no one to take care of your kids ^{a29c}	17	(39.5)	43
You heard bad things about treatment from friends ^{a29d}	11	(25.0)	44
You did not want to give up alcohol ^{a29e}	39	(86.7)	45
You were afraid your children would be taken away from you ^{a29f}	18	(41.9)	43
You were pregnant and afraid the baby would be taken away ^{a29g}	11	(25.6)	43
You could not get into a program ^{a29h}	11	(25.0)	44
It was too far to travel, you had no transportation ^{a29i}	9	(20.5)	44
You had no money to pay for treatment ^{a29j}	15	(34.1)	44
You had no insurance or medical care to pay for treatment ^{a29k}	12	(27.3)	44
You had a bad experience in past treatment ^{a29l}	7	(15.9)	44
You were afraid of losing your housing ^{a29m}	7	(16.3)	43
You were in school or could not leave ^{a29n}	1	(2.3)	44

V.G. Maternal Abstinence Attempts

Table V.11. Maternal Sobriety Attempts: *General summary.*

Characteristic		n = 80			
Number of concerted attempts to stop drinking among women who achieved sobriety at time of interview	a31 alstat <=2	mean 6.3	(S.D.) (15.1)	min. - max. 1 - 100	n 50
Length of abstinence (days) for sobriety attempt:		mean	(S.D.)	min. - max.	n
#1	a30ab	585.5	(1345.2)	0 - 6604	73
#2	a31ab2	740.9	(1424.9)	0 - 8081	57
#3	a31ab3	571.7	(1033.8)	0 - 5960	44
#4	a31ab4	601.7	(1249.0)	0 - 5931	27
#5	a31ab5	598.7	(952.3)	0 - 3220	18
#6	a31ab6	474.6	(1065.7)	0 - 3623	11
#7	a31ab7	522.4	(853.0)	60 - 2042	5
#8	a31ab8	202.0	(265.9)	14 - 390	2
#9	a31ab9	21.0	(--)	21 - 21	1
#10	a31ab10	524.0	(--)	524 - 524	1
Least successful sobriety attempt	a132			n	(valid %)
First				18	(40.9)
Second				15	(34.2)
Third				1	(2.3)
Fourth				6	(13.6)
Fifth				2	(4.5)
Sixth - Tenth				2	(4.5)
Age (yr) at start of this sobriety attempt	age155	mean 27.7	(S.D.) (7.7)	min. - max. 14.4 - 44.9	n 44
Most successful sobriety attempt	a232			n	(valid %)
First				13	(19.4)
Second				17	(25.4)
Third				17	(25.4)
Fourth				7	(10.4)
Fifth				8	(11.9)
Sixth - Tenth				5	(7.5)
Age (yr) at start of this sobriety attempt	age255	mean 31.4	(S.D.) (6.8)	min. - max. 19.5 - 52.2	n 67
Sobriety attempt closest to FAS birth	a32			n	(valid %)
First				42	(61.8)
Second				7	(10.3)
Third				11	(16.2)
Fourth				5	(7.3)
Fifth				2	(2.9)
Sixth - Tenth				1	(1.5)
Age (yr) at start of this sobriety attempt	age55	mean 28.3	(S.D.) (6.8)	min. - max. 15.3 - 47.1	n 68

Table V.12. Maternal Sobriety Attempts: *Attempt closest to birth of the child with FAS.*

Characteristic	n = 69 out of 80			
Age (yrs) at start of this sobriety attempt ^{age55}	mean	(S.D.)	min. - max.	n
	28.3	(6.8)	15.3 - 47.1	68
Who tried to get you to stop drinking or go into treatment?			n	(valid %)
No one helped ^{a33a}			20	(29.4)
Clergy ^{a33b}			0	(0.0)
Counselor or therapist ^{a33c}			5	(7.4)
Parent(s) ^{a33d}			10	(14.7)
Grandparent(s) ^{a33e}			1	(1.5)
Other family member(s) ^{a33f}			13	(19.1)
Friend ^{a33g}			8	(11.8)
Husband/boyfriend/partner ^{a33h}			13	(19.1)
Lawyer) ^{a33i}			1	(1.5)
Nurse or doctor ^{a33j}			8	(11.8)
WIC/AFDC/Medicaid caseworker ^{a33k}			0	(0.0)
Other ^{a33l}			22	(32.4)
Were you getting health care at any of the following types of clinics at this time?			n	(valid %)
Family planning ^{a34a}			2	(2.9)
General public health clinic ^{a34b}			12	(17.7)
Private medical doctor ^{a34c}			34	(50.0)
Emergency room ^{a34d}			1	(1.5)
Other ^{a34e}			8	(11.9)
Not receiving any health care at the time ^{a34h}			17	(25.0)
How many drinks did you usually drink on a single drinking occasion just before this attempt? (<i>1 drink = ½ oz absolute alcohol</i>) ^{a35}	mean	(S.D.)	min. - max.	n
	21.3	(20.5)	1.0 - 104.0	61
What type of beverage did you usually drink before this attempt ^{a36}			n	(valid %)
Ordinary table wine			3	(4.5)
Fortified wine			2	(2.9)
Beer			36	(52.9)
Wine coolers			0	(0.0)
Liquor			22	(32.4)
Other			3	(4.4)
Unknown			2	(2.9)

Table V.12 (cont). Maternal Sobriety Attempts: *Attempt closest to the birth of the child with FAS.*

Characteristic	n = 69 out of 80			
How often did you drink just before this attempt? ^{a37}			n	(valid %)
Daily			32	(47.1)
A few times a week			19	(27.9)
Once a week			4	(5.9)
Once every month or two			0	(0.0)
Occasional binge (a lot every couple of weeks)			2	(2.9)
Other			8	(11.8)
Unknown			3	(4.4)
What is the most number of drinks that you drank on a single occasion just before this attempt? ^{a38} <i>(1 drink = ½ oz absolute alcohol)</i>	mean	(S.D.)	min. - max.	n
	29.3	(28.8)	1.0 - 150.0	62
How often did you drink that many drinks on a single occasion just before this attempt? ^{a39}			n	(valid %)
Daily			17	(25.4)
A few times a week			18	(26.9)
Once a week			11	(16.4)
Once every month or two			4	(6.0)
Occasional binge (a lot every couple of weeks)			4	(6.0)
Other			10	(14.9)
Unknown			3	(4.5)

Table V.12 (cont). Maternal Sobriety Attempts: *Attempt closest to the birth of the child with FAS.*

Characteristic	n = 69 out of 80	
What motivated you to try to stop drinking? ^{a40 a86a} (open-ended question; can record >1 reason)	n	(valid %)
Pregnancy	19	(27.9)
CPS/IHS involvement: lost custody, fear of losing custody	14	(20.6)
Physical health concerns; hospitalized; dying	12	(17.6)
Tired of effects of alcohol on lifestyle (e.g.: no money; loss of home)	9	(13.2)
Care giving responsibilities	8	(11.8)
Mental health problems: (e.g.: fear of psychosis, suicidal, depressed)	8	(11.8)
Partner, friend, family support, a non-drinking partner	5	(7.4)
Pressure from partner, family, employer	5	(7.4)
Domestic violence; partnership problems	4	(5.9)
Incarceration; fear of incarceration	4	(5.9)
Decided to stop; didn't want to drink; acknowledged problem	3	(4.4)
Religious beliefs or experiences	3	(4.4)
Gave birth to child damaged by alcohol	3	(4.4)
Needed to control anger; thoughts of killing another, children	3	(4.4)
Lack of funds for alcohol	2	(2.9)
Left partner; partner out of home	2	(2.9)
Stressed; feeling out of control; afraid	2	(2.9)
Alcohol-related death of family member	1	(1.5)
Traumatic life events (e.g.: murder, accidental death, shooting)	1	(1.5)
Started college	1	(1.5)
Didn't want to be like own mother	1	(1.5)
Stopped illicit drug use	1	(1.5)

Table V.12 (cont.). Maternal Sobriety Attempts: *Attempt closest to the birth of the child with FAS.*

Characteristic	n = 69 out of 80			
Motivating reasons for wanting to stop drinking just before this attempt <i>(close-ended question)</i> ^{a41}			n	(valid %)
Encouraged by her partner ^{a41a}			20	(30.8)
Worried about how her alcohol use was affecting her kids ^{a41b}			39	(67.2)
Encouraged by other family members ^{a41c}			34	(51.5)
Worried her health was in danger if she did not stop ^{a41d}			30	(45.5)
Feared she would lose your children if she did not stop ^{a41e}			29	(50.9)
Feared she would lose your partner if she did not stop ^{a41f}			11	(17.5)
Feared she would lose your job if she did not stop ^{a41g}			3	(5.1)
CPS said she had to get treatment if she wanted to keep her kids ^{a41h}			16	(25.8)
She was pregnant ^{a41i}			24	(37.5)
Had a partner at the time she was trying to stop drinking ^{a44}			n	(valid %)
			49	(73.1)
Partner had a drinking problem at this time ^{a45}			n	(valid %)
			40	(81.6)
Number of children she was taking care of at the time ^{a46}	mean	(S.D.)	min. - max.	n
	1.2	(1.3)	0 - 5	62
Pregnant at the time she tried to stop drinking ^{a47}			n	(valid %)
			26	(38.2)
Housing at the time she tried to stop drinking ^{a48}			n	(valid %)
Permanent, stable			46	(68.7)
Transient, emergency shelters			0	(0.0)
Living with friends or relatives			11	(16.3)
Homeless (without shelter)			6	(9.0)
Transitional drug-free housing			1	(1.5)
Employed at the time she tried to stop drinking ^{a49}			n	(valid %)
			22	(34.4)
Main source(s) of household income at the time she tried to stop drinking ^{a50}			n	(valid %)
Her own employment			9	(13.3)
Husband or partner's employment			11	(16.2)
Both employed			3	(4.4)
Parents and/or family support			2	(2.9)
Public assistance			33	(48.5)
Unemployment insurance / social security			6	(8.8)
Other			4	(5.9)

Table V.12 (cont.). Maternal Sobriety Attempts: *Attempt closest to the birth of the child with FAS.*

Characteristic	n = 69 out of 80	
	n	(valid %)
Gross yearly household income at this time ^{a51}		
Less than \$10,000	52	(76.5)
\$10,000 to \$29,999	13	(19.1)
\$30,000 to \$49,999	2	(2.9)
\$50,000 to \$69,999	1	(1.5)
Use of illicit or prescription drugs at this time ^{a52}		
Illicit only	23	(34.3)
Prescription only	2	(3.0)
Illicit and prescription	0	(0.0)
Felt she needed treatment for her alcohol use at this time ^{a53}		
No	34	(50.7)
Yes	30	(44.8)
Uncertain	3	(4.5)
Believed that treatment would help her stop drinking ^{a54}		
No	33	(50.7)
Yes	30	(46.2)
Uncertain	2	(3.1)
Was seeking help or treatment from an agency or person outside her home ^{a56}		
Yes	38	(55.9)

Table V.12 (cont.). Maternal Sobriety Attempts: *Attempt closest to the birth of the child with FAS.*

Characteristic	n = 69 out of 80			
Reasons for not wanting to seek formal treatment ^{a57 alctxc1}			n	(valid %)
<i>(open-ended question; can record >1 reason)</i>				
Didn't believe in it; didn't need it; can quit on own			16	(42.1)
Didn't consider formal treatment, didn't know about it			12	(31.6)
Didn't have problem with alcohol; denial; everyone drinks			8	(21.1)
No funds; lack of medical coverage; fear of losing medical coverage			4	(10.5)
Not ready to go to treatment or stop drinking alcohol			2	(5.3)
Child care responsibilities, (no funds for sitter, no daycare)			2	(5.3)
Didn't care about self; too far gone			2	(5.3)
Pregnancy			2	(5.3)
Receiving mental health counseling; suicidal			2	(5.3)
Sent to treatment—did not seek it (court, CPS, HIS, family)			1	(2.6)
Afraid of losing custody of child(ren)			1	(2.6)
Used AA			1	(2.6)
No treatment available; couldn't get in; didn't know how to			1	(2.6)
Afraid of losing job			1	(2.6)
Afraid others would know: family, friends, etc.			1	(2.6)
Failed before			1	(2.6)
Partner/friends didn't want her to go			1	(2.6)
Afraid of treatment, didn't know what it was like			1	(2.6)
Going to school, didn't want to interrupt; student loans affected			1	(2.6)
Had new partner			1	(2.6)
Didn't want to be like mother			1	(2.6)
No reason			1	(2.6)
Someone she knew did one or more of the following to help her get into treatment <i>(close-ended question)</i>			n	(valid %)
Made an appointment for her with a counselor ^{a58a}			7	(22.6)
Took her to a treatment program ^{a58b}			13	(41.9)
Took her to a hospital, doctor or clinic ^{a58c}			8	(25.8)
Introduced her to staff or women in a treatment program ^{a58d}			7	(22.6)
Gave her the name or number of a program ^{a58e}			14	(45.2)
Gave her information about addiction ^{a58f}			12	(38.7)
Introduced her to a recovering alcoholic or addict ^{a58g}			10	(32.3)
Took her to an AA meeting ^{a58h}			12	(38.7)
Talked to her about giving up alcohol ^{a58i}			21	(67.7)
Was on a waiting list to enroll in alcohol treatment ^{a62}			n	(valid %)
			10	(27.8)
Was admitted to an alcohol treatment facility ^{a63}			n	(valid %)
			28	(73.7)
Length of time (days) it took to get admitted to treatment facility ^{a64}	mean	(S.D.)	min. - max.	n
	7.7	(9.3)	0 - 30	26

Table V.12 (cont.). Maternal Sobriety Attempts: *Attempt closest to the birth of the child with FAS.*

Characteristic	n = 69 out of 80			
Type of treatment program admitted to ^{a65}				n (valid %)
Inpatient only				8 (28.6)
Outpatient only				3 (10.7)
Inpatient and outpatient				17 (60.7)
Length (days) of inpatient program that was recommended ^{a66}	mean	(S.D.)	min. - max.	n
	40.7	(28.6)	10 - 120	24
Completed inpatient program ^{a67}				n (valid %)
No				0 (0.0)
Yes				24 (100.0)
Still attending				0 (0.0)

Table V.12 (cont.). Maternal Sobriety Attempts: *Attempt closest to the birth of the child with FAS.*

Characteristic	n = 69 out of 80			
Length (days) of outpatient program that was recommended ^{a69}	mean	(S.D.)	min. - max.	n
	310.2	(310.5)	30 - 1275	17
Completed outpatient program ^{a70}			n	(valid %)
No			8	(40.0)
Yes			10	(50.0)
Still attending			2	(10.0)
Reasons for not completing the outpatient program ^{a71 a1ctxc3}			n	(valid %)
<i>(open-ended question; can record >1 reason)</i>				
Needed one-on-one counseling (e.g.: mental health problems; hallucinations)			2	(22.2)
Wanted to be with father of baby; children			2	(22.2)
Partner unfaithful			2	(22.2)
Disliked treatment (e.g.: confrontation, listening to others' problems)			1	(11.1)
No evening daycare available; had to care for ill relative			1	(11.1)
No transportation available to outpatient			1	(11.1)
Relapsed; returned to drug use			1	(11.1)
Did not care; did not want to quit/listen; was not honest			1	(11.1)
Outpatient not recommended			1	(11.1)
An aftercare program like AA was recommended ^{a72}			n	(valid %)
			28	(71.8)
Participated in an aftercare program ^{a73}			n	(valid %)
			29	(74.4)
Length (days) of participation in an aftercare program ^{a74}	mean	(S.D.)	min. - max.	n
	589.7	(818.7)	0 - 2922	26

Table V.12 (cont.). Maternal Sobriety Attempts: *Attempt closest to the birth of the child with FAS.*

Characteristic	n = 69 out of 80			
List of treatment facility services that patient felt they needed, wanted and/or received (<i>Can select > 1 choice.</i>)	Needed n (valid %)	Wanted n (valid %)	Received n (valid %)	
Child care <small>a75an, a75aw, a75ar</small>	11 (40.7)	11 (40.7)	3 (11.1)	
Health care <small>a75bn, a75bw, a75br</small>	18 (26.5)	18 (66.7)	18 (66.7)	
Education programs / GED services <small>a75cn, a75cw, a75cr</small>	10 (37.0)	10 (37.0)	5 (18.5)	
Legal assistance <small>a75dn, a75dw, a75dr</small>	7 (25.9)	7 (25.9)	4 (14.8)	
All female treatment/counseling groups <small>aa75en, a75ew, a75er</small>	15 (55.6)	15 (55.6)	11 (40.7)	
Match female patients with female counselors <small>a75fn, a75fw, a75fr</small>	19 (70.4)	18 (66.7)	17 (63.0)	
Professional staff of you own race/ethnicity <small>a75gn, a75gw, a75gr</small>	6 (22.2)	6 (22.2)	11 (40.7)	
Treatment for other drug dependencies <small>a75hn, a75hw, a75hr</small>	11 (40.7)	10 (37.0)	12 (44.4)	
Financial assistance <small>a75in, a75iw, a75ir</small>	19 (70.4)	19 (70.4)	15 (55.6)	
Help enrolling you in aftercare services <small>a74jn, a75jw, a75jr</small>	19 (70.4)	19 (70.4)	16 (59.3)	
Transportation to appointments <small>a75kn, a75kw, a75kr</small>	17 (63.0)	17 (63.0)	12 (44.4)	
If pregnant, special services to meet your needs <small>a75ln, a75lw, a75lr</small>	4 (14.8)	4 (14.8)	4 (15.4)	
Family planning services <small>a75mn, a75mw, a75mr</small>	8 (29.6)	7 (25.9)	4 (14.8)	
Food <small>a75nn, a75nw, a75nr</small>	20 (74.1)	20 (74.1)	18 (66.7)	
Clothing <small>a75on, a75ow, a75or</small>	11 (40.7)	11 (40.7)	11 (40.7)	
Open-ended response to what she felt she needed while in treatment <small>alctxc4</small>			n (valid %)	
<i>(Can record > 1 answer.)</i>				
Help in relocating after discharge, finances, baby needs, clothing			4 (28.6)	
Treatment appropriate for learning disabled			2 (14.3)	
Domestic violence and child abuse counseling			2 (14.3)	
Support of other women, mentors, validating who she was			1 (7.1)	
Help developing IEP for affected child, family care plans			2 (14.3)	
Mental illness treatment, treatment hallucinations, counseling			1 (7.1)	
Ability to use personal belongings			1 (7.1)	
State assistance in gaining custody of children			1 (7.1)	
Ability to call children and family while in treatment			1 (7.1)	
Able to successfully stop drinking during this attempt <small>a76</small>			n (valid %)	
			64 (94.1)	
If yes, how long (days) did she maintain abstinence? <small>a77</small>	mean	(S.D.)	min. - max.	n
	880.2	(1546.6)	7 - 6604	66

Table V.12 (cont.). Maternal Sobriety Attempts: *Attempt closest to the birth of the child with FAS.*

Characteristic	n = 69 out of 80	
	n	(valid %)
Reasons she attributed most to her <i>success</i> in trying to stop drinking during this attempt ^{a86b} (<i>open-ended question; can record >1 reason</i>)		
Social support (e.g.: tribe, partner, friend, family, employer, children)	15	(22.7)
Pregnancy	14	(21.2)
Wanted to stop; became aware of alcohol effects	11	(16.7)
Planning goals and achieving success/change	10	(15.2)
Structure of treatment; keeping busy	9	(13.6)
AA support; sponsors; mentors; treatment; advocates	8	(12.1)
Care giving responsibility	7	(10.6)
Religious beliefs	5	(7.6)
Willpower; stubborn; persistence; chose to quit	5	(7.6)
Physical health concerns; health improved	4	(6.1)
CPS involvement; fear of losing custody	4	(6.1)
Didn't want to be like mother; fear of setting bad example	4	(6.1)
Determination; persistence; choosing to quit	3	(4.5)
Mental health counseling; antidepressant/psychotic drugs	3	(4.5)
Fear of relapse	3	(4.5)
No crisis; no longer homeless; improved relationship	3	(4.5)
Alcohol education—understanding the disease	3	(4.5)
Wanting to please others—family, partner, employer	2	(3.0)
Family members/friends not drinking	2	(3.0)
Fear of incarceration; court ordered	2	(3.0)
Lack of funds for alcohol	2	(3.0)
Left partner	2	(3.0)
Avoided alcoholics/drinking friends	1	(1.5)
Hope; feeling accepted	1	(1.5)
Afraid of being killed—domestic violence worse when drinking	1	(1.5)
Family monitoring, pressure	1	(1.5)
Switched to other drugs	1	(1.5)

Table V.12 (cont.). Maternal Sobriety Attempts: *Attempt closest to the birth of the child with FAS.*

Characteristic	n = 69 out of 80	
Reasons she attributed most to her <i>failure</i> in trying to stop drinking during this attempt ^{a86c} (<i>open-ended question; can record >1 reason</i>)	n	(valid %)
Support network was drinking—family, partner, friends	19	(33.9)
Domestic violence, relationship problems, emotional abuse	13	(23.2)
Wanted to drink, likes the taste of alcohol	10	(17.9)
Crisis (e.g.: financial, family, change)	7	(12.5)
Abandonment or perceived abandonment (by partner, others)	6	(10.7)
Mental health symptoms increased (e.g.: depression, guilt)	5	(8.9)
Gave birth	4	(7.1)
Denied drinking was a problem, doesn't need help	4	(7.1)
Advised to moderate by M.D., told she wasn't an alcoholic	3	(5.4)
Stopped AA/sponsor/treatment	3	(5.4)
CPS pressure; CPS didn't acknowledge her accomplishments	3	(5.4)
Reduced or no childcare responsibilities	2	(3.6)
Disease of alcohol; didn't understand alcoholism	2	(3.6)
Traumatic life events (e.g.: suicide, murder, attacks, etc.)	2	(3.6)
Returned to or continued drug use	2	(3.6)
Fear of disappointing others	1	(1.8)
Threat of incarceration	1	(1.8)
Too many barriers to achieving goals; lack of hope	1	(1.8)
Fear of life without alcohol	1	(1.8)
Gave up trying; didn't try; didn't care	1	(1.8)
Amount of treatment cost that she paid for herself ^{a80}	n	(valid %)
None of it	0	(0.0)
Part of it	1	(33.3)
Most of it	1	(33.3)
All of it	1	(33.3)

Table V.12 (cont.). Maternal Sobriety Attempts: *Attempt closest to the birth of the child with FAS.*

Characteristic	n = 69 out of 80	
Experiences during this attempt to stop drinking (<i>close-ended question; can select >1 response</i>) ⁿ		(valid %)
Loss or fear of loss of custody of her <i>children</i> ^{a81a}	26	(44.8)
Loss or fear of loss of her <i>partner/spouse</i> ^{a81b}	16	(25.8)
Lack of <i>family support</i> to stop drinking ^{a81c}	21	(35.0)
Loss or fear of loss of her <i>job</i> ^{a81d}	4	(8.5)
Loss or fear of loss of her <i>housing</i> ^{a81e}	15	(24.6)
Other fears experienced while in treatment ^{alctxc5} (<i>open-ended question; can record >1 reason</i>)	n	(valid %)
Fear of losing dignity, self-esteem, self-respect	3	(13.6)
Delusions, hallucinations, losing mind, suicidal thoughts, depression	3	(13.6)
Financial concerns (e.g., homelessness, losing insurance, SSI pressure)	3	(13.6)
Afraid of being made fun of (in treatment; by friends)	3	(13.6)
Fear for physical health; dying	2	(9.1)
Fear for health of baby	2	(9.1)
Loneliness: loss of family, friends, partner	2	(9.1)
CPS threat; CPS not following through; not gaining custody	2	(9.1)
Not seeing kids; neglecting kids	1	(4.5)
Family members, partner dying	1	(4.5)
Fear of relapse, getting caught drinking, using drugs	1	(4.5)
Fear of killing or injuring others; own anger/rage	1	(4.5)
Feared for own life	1	(4.5)
Feared leaving structure, safety, support of treatment	1	(4.5)
Feared starting over, being responsible, learning new things	1	(4.5)
Fear of effect on family; family demands	1	(4.5)

Table V.13. Maternal Sobriety Attempts: *Least successful attempt.*

Characteristic	n = 45 out of 80			
Age (yr) at start of this sobriety attempt ^{age155}	mean	(S.D.)	min. - max.	n
	27.7	(7.7)	14.4 - 44.9	44
Who tried to get you to stop drinking or go into treatment?			n	(valid %)
No one helped ^{a133a}			9	(20.5)
Clergy ^{a133b}			0	(0.0)
Counselor or therapist ^{a133c}			3	(6.8)
Parent(s) ^{a133d}			9	(20.5)
Grandparent(s) ^{a133e}			1	(2.3)
Other family member(s) ^{a133f}			11	(25.0)
Friend ^{a133g}			1	(2.3)
Husband/boyfriend/partner ^{a133h}			8	(18.2)
Lawyer ^{a133i}			0	(0.0)
Nurse or doctor ^{a133j}			5	(11.4)
WIC/AFDC/Medicaid caseworker ^{a133k}			1	(2.3)
Other ^{a133l}			18	(40.9)
Were you getting health care at any of the following types of clinics at this time?			n	(valid %)
Family planning ^{a134a}			1	(2.3)
General public health clinic ^{a134b}			6	(14.0)
Private medical doctor ^{a134c}			12	(27.9)
Emergency room ^{a134d}			1	(2.3)
Other ^{a134e}			6	(14.0)
Not receiving any health care at the time ^{a134h}			19	(44.2)
How many drinks did you usually drink on a single drinking occasion just before this attempt? (<i>1 drink = ½ oz absolute alcohol</i>) ^{a135}	mean	(S.D.)	min. - max.	n
	21.8	(17.8)	3.0 - 78.0	43
What type of beverage did you usually drink before this attempt ^{a136}			n	(valid %)
Ordinary table wine			2	(4.5)
Fortified wine			5	(11.4)
Beer			21	(47.7)
Wine coolers			0	(0.0)
Liquor			15	(34.1)
Other			1	(2.3)

Table V.13 (cont.). Maternal Sobriety Attempts: *Least successful attempt.*

Characteristic	n = 45 out of 80			
How often did you drink just before this attempt? ^{a137}			n	(valid %)
Daily			20	(45.5)
A few times a week			13	(29.5)
Once a week			2	(4.5)
Once every month or two			2	(4.5)
Occasional binge (a lot every couple of weeks)			5	(11.5)
Other			2	(4.5)
What is the most number of drinks that you drank on a single occasion just before this attempt? ^{a138} (1 drink = ½ oz absolute alcohol)	mean	(S.D.)	min. - max.	n
	31.2	(28.1)	3.0 - 130.0	42
How often did you drink that many drinks on a single occasion just before this attempt? ^{a139}			n	(valid %)
Daily			10	(22.7)
A few times a week			14	(31.8)
Once a week			7	(15.9)
Once every month or two			2	(4.5)
Occasional binge (a lot every couple of weeks)			6	(13.7)
Other			5	(11.4)

Table V.13 (cont.). Maternal Sobriety Attempts: *Least successful attempt.*

Characteristic	n = 45 out of 80	
What motivated you to try to stop drinking? ^{a186a} (<i>open-ended question; can record >1 reason</i>)	n	(valid %)
Physical health concerns; hospitalized; dying	8	(19.0)
CPS/IHS involvement: lost custody, fear of losing custody	7	(16.7)
Incarceration; fear of incarceration	6	(14.3)
Pregnancy	6	(14.3)
Pressure from partner, family, employer	6	(14.3)
Stressed; feeling out of control; afraid	5	(11.9)
Mental health problems (e.g.: fear of psychosis, suicidal, depressed)	4	(9.5)
Care giving responsibilities	4	(9.5)
Tired of effects of alcohol on lifestyle (e.g.: no money; loss of home, etc.)	3	(7.1)
Continued education	2	(4.8)
Lack of funds for alcohol	2	(4.8)
Left partner, partner out of home	2	(4.8)
Stopped illicit drug use	2	(4.8)
AA support	1	(2.4)
Became employed	1	(2.4)
Traumatic life events (e.g.: murder, accidental death, shooting)	1	(2.4)

Table V.13 (cont.). Maternal Sobriety Attempts: *Least successful attempt.*

Characteristic	n = 45 out of 80			
Motivating reasons for wanting to stop drinking just before this attempt <i>(close-ended question; can select >1 response)</i>	n			(valid %)
Encouraged by her partner ^{a141a}	13			(31.7)
Worried about how her alcohol use was affecting her kids ^{a141b}	24			(70.6)
Encouraged by other family members ^{a141c}	25			(56.8)
Worried her health was in danger if she did not stop ^{a141d}	16			(36.4)
Feared she would lose your children if she did not stop ^{a141e}	16			(51.6)
Feared she would lose your partner if she did not stop ^{a141f}	9			(23.7)
Feared she would lose your job if she did not stop ^{a141g}	4			(10.3)
CPS said she had to get treatment if she wanted to keep her kids ^{a141h}	9			(25.7)
She was pregnant ^{a141i}	8			(21.1)
Had a partner at the time she was trying to stop drinking ^{a144}	n			(valid %)
	28			(63.6)
Partner had a drinking problem at this time ^{a145}	n			(valid %)
	23			(82.1)
Number of children she was taking care of at the time ^{a146}	mean	(S.D.)	min. - max.	n
	1.7	(1.7)	0 - 5	34
Pregnant at the time she tried to stop drinking ^{a147}	n			(valid %)
	10			(23.3)
Housing at the time she tried to stop drinking ^{a148}	n			(valid %)
Permanent, stable	31			(72.1)
Transient, emergency shelters	1			(2.3)
Living with friends or relatives	5			(11.6)
Homeless (without shelter)	6			(14.0)
Jail, long-term	0			(0.0)
Transitional drug-free housing	0			(0.0)
Other	0			(0.0)
Employed at the time she tried to stop drinking ^{a149}	n			(valid %)
	12			(27.9)
Main source(s) of household income at the time she tried to stop drinking ^{a150}	n			(valid %)
None	2			(4.5)
Her own employment	9			(20.5)
Husband or partner's employment	6			(13.6)
Both employed	1			(2.3)
Parents and/or family support	3			(6.8)
Public assistance	15			(34.1)
Unemployment insurance/social security	3			(6.8)
Family Independent Program	0			(0.0)
Other	5			(11.4)

Table V.13 (cont.). Maternal Sobriety Attempts: *Least successful attempt.*

Characteristic	n = 45 out of 80	
Gross yearly household income at this time ^{a151}	n	(valid %)
Less than \$10,000	31	(70.5)
\$10,000 to \$29,999	8	(18.2)
\$30,000 to \$49,999	2	(4.5)
\$50,000 to \$69,999	1	(2.3)
\$70,000 or more	0	(0.0)
Unknown	2	(4.5)
Use of illicit or prescription drugs at this time ^{a152}	n	(valid %)
Illicit only	14	(31.8)
Prescription only	2	(4.5)
Illicit and prescription	0	(0.0)
Felt she needed treatment for her alcohol use at this time ^{a153}	n	(valid %)
No	20	(46.5)
Yes	21	(48.8)
Uncertain	2	(4.7)
Believed that treatment would help her stop drinking ^{a154}	n	(valid %)
No	22	(51.1)
Yes	19	(44.2)
Uncertain	2	(4.7)
Was seeking help or treatment from an agency or person outside her home ^{a156}	n	(valid %)
Yes	29	(65.9)

Table V.13 (cont.). Maternal Sobriety Attempts: *Least successful attempt.*

Characteristic	n = 45 out of 80			
Reasons for not wanting to seek formal treatment ^{a157 aletx11} (open-ended question; can record >1 reason)	n			(valid %)
Didn't consider formal treatment, didn't know about it	5			(23.8)
Not ready to go to treatment or stop drinking alcohol	4			(19.0)
Didn't believe in it; didn't need it; can quit on own	4			(19.0)
No funds; lack of medical coverage; fear of losing medical coverage	3			(14.3)
Didn't have problem with alcohol; denial, everyone drinks	3			(14.3)
Sent to treatment—did not seek it (court, CPS, HIS, family)	3			(14.3)
Child care responsibilities (no funds for sitter, no daycare)	1			(4.8)
Receiving mental health counseling; suicidal	1			(4.8)
No treatment available, couldn't get in, didn't know how to	1			(4.8)
Afraid others would know: family, friends, etc.	1			(4.8)
Partner/friends didn't want her to go	1			(4.8)
Failed before	1			(4.8)
Going to school, didn't want to interrupt; student loans affected	1			(4.8)
Someone she knew did one or more of the following to help her get into treatment (close-ended question; can select >1 response)	n			(valid %)
Made an appointment for her with a counselor ^{a158a}	10			(38.5)
Took her to a treatment program ^{a158b}	17			(65.4)
Took her to a hospital, doctor or clinic ^{a158c}	4			(15.4)
Introduced her to staff or women in a treatment program ^{a158d}	7			(26.9)
Gave her the name or number of a program ^{a158e}	14			(53.8)
Gave her information about addiction ^{a158f}	10			(38.5)
Introduced her to a recovering alcoholic or addict ^{a158g}	6			(23.1)
Took her to an AA meeting ^{a158h}	7			(26.9)
Talked to her about giving up alcohol ^{a158i}	15			(57.7)
Was on a waiting list to enroll in alcohol treatment ^{a162}	n			(valid %)
	11			(39.3)
Was admitted to an alcohol treatment facility ^{a163}	n			(valid %)
	26			(89.7)
Length of time (days) it took to get admitted to treatment facility ^{a164}	mean	(S.D.)	min. - max.	n
	23.2	(28.6)	0.0 - 90.0	22

Table V.13 (cont.). Maternal Sobriety Attempts: *Least successful attempt.*

Characteristic	n = 45 out of 80			
Type of treatment program admitted to ^{a165}			n	(valid %)
Inpatient only			14	(53.8)
Outpatient only			4	(15.4)
Inpatient and outpatient			8	(30.8)
Length (days) of inpatient program that was recommended ^{a166}	mean	(S.D.)	min. - max.	n
	75.2	(79.9)	14 - 365	18
Completed inpatient program ^{a167}			n	(valid %)
No			11	(50.0)
Yes			10	(45.5)
Still attending			1	(4.5)
Reasons for not completing the inpatient program ^{a168 aletx12}			n	(valid %)
<i>(open-ended question; can record >1 reason)</i>				
Disliked treatment (confrontation, talking in front of group)			2	(20.0)
Missed children/family; children couldn't stay with her			2	(20.0)
Bored, frustrated			2	(20.0)
Caregiving responsibilities			1	(10.0)
Kicked out of treatment; not following treatment plan			1	(10.0)
Mental health issues; feared other residents			1	(10.0)
Cravings, relapse			1	(10.0)
Minority status in treatment			1	(10.0)
Lack of confidentiality			1	(10.0)
Crisis (e.g.: death in family; homeless)			1	(10.0)

Table V.13 (cont.). Maternal Sobriety Attempts: *Least successful attempt.*

Characteristic	n = 45 out of 80			
Length (days) of outpatient program that was recommended ^{a169}	mean	(S.D.)	min. - max.	n
	393.8	(321.0)	84 - 730	9
Completed outpatient program ^{a170}			n	(valid %)
No			5	(41.7)
Yes			3	(25.0)
Still attending			2	(16.7)
Reasons for not completing the outpatient program ^{a171 a1ctx13}			n	(valid %)
<i>(open-ended question; can record >1 reason)</i>				
Relapsed; returned to drug use			3	(42.9)
Felt she had done enough treatment; could do it on her own			2	(28.6)
Used AA instead			1	(14.3)
Needed one-on-one counseling			1	(14.3)
No evening daycare available; had to care for ill relative			1	(14.3)
No transportation available to outpatient treatment			1	(14.3)
Being stalked			1	(14.3)
Incarcerated			1	(14.3)
Own stupidity			1	(14.3)
Did not care; did not want to quit/listen			1	(14.3)
Outpatient not recommended			1	(14.3)
An aftercare program like AA was recommended ^{a172}			n	(valid %)
			18	(69.2)
Participated in an aftercare program ^{a173}			n	(valid %)
			13	(50.0)
Length (days) of participation in an aftercare program ^{a174}	mean	(S.D.)	min. - max.	n
	251.5	(558.2)	2 - 1825	10

Table V.13 (cont.). Maternal Sobriety Attempts: *Least successful attempt.*

Characteristic	n = 45 out of 80			
List of treatment facility services that patient felt they needed, wanted and/or received (<i>close-ended question</i>)	Needed	Wanted	Received	
	n (valid %)	n (valid %)	n (valid %)	
Child care <small>a175an, a175aw, a175ar</small>	4 (19.0)	4 (19.0)	1 (4.5)	
Health care <small>a175bn, a175bw, a175br</small>	15 (71.4)	15 (71.4)	14 (66.7)	
Education programs / GED services <small>a175cn, a175ce, a175cr</small>	6 (31.6)	5 (26.3)	3 (15.0)	
Legal assistance <small>a175dn, a175dw, a175dr</small>	4 (21.1)	3 (15.8)	2 (10.0)	
All female treatment/counseling groups <small>a175en, a175ew, a175er</small>	9 (42.9)	9 (42.9)	8 (38.1)	
Match female patients with female counselors <small>a175fn, a175fw, a175fr</small>	8 (40.0)	7 (35.0)	12 (57.1)	
Professional staff of you own race/ethnicity <small>a175gn, a175gw, a175gr</small>	5 (25.0)	5 (25.0)	12 (57.1)	
Treatment for other drug dependencies <small>a175hn, a175hw, a175hr</small>	7 (33.3)	7 (33.3)	7 (33.3)	
Financial assistance <small>a175in, a175iw, a175ir</small>	14 (70.0)	14 (70.0)	11 (55.0)	
Help enrolling you in aftercare services <small>a175jn, a175jw, a175jr</small>	14 (73.7)	14 (73.7)	8 (40.0)	
Transportation to appointments <small>a175kn, a175kw, a175kr</small>	9 (45.0)	9 (45.0)	8 (40.0)	
If pregnant, special services to meet your needs <small>a175ln, a175lw, a175lr</small>	0 (0.0)	0 (0.0)	0 (0.0)	
Family planning services <small>a175mn, a175mw, a175mr</small>	3 (15.0)	3 (15.0)	2 (10.0)	
Food <small>a175nn, a175nw, a175nr</small>	9 (45.0)	9 (45.0)	8 (40.0)	
Clothing <small>a175on, a175ow, a175or</small>	6 (30.0)	6 (30.0)	5 (25.0)	
Open-ended response to what she felt she needed while in treatment <small>a1ctx14</small> (<i>can record > 1 reason</i>)			n	(valid %)
More washing of clothes/towels; better food; more activities			3	(50.0)
Mental illness treatment, treatment hallucinations, counseling			2	(33.3)
Having children with her, parenting			1	(16.7)
Able to successfully stop drinking during this attempt <small>a176</small>			n	(valid %)
			26	(59.1)
If yes, how long (days) did she maintain abstinence? <small>a177</small>	mean	(S.D.)	min. - max.	n
	92.6	(99.2)	0 - 365	36

Table V.13 (cont.). Maternal Sobriety Attempts: *Least successful attempt.*

Characteristic	n = 45 out of 80	
Reasons she attributed most to her <i>success</i> in trying to stop drinking during this attempt ^{a186b} (<i>open-ended question; can record >1 reason</i>)		
	n	(valid %)
Social support (e.g.: tribe, partner, friend, family, employer, children)	5	(17.9)
Structure of treatment; keeping busy	5	(17.9)
AA support, sponsors, mentors, treatment, advocates	5	(17.9)
Mental health counseling; antidepressant/psychotic drugs	4	(14.3)
Wanted to stop, became aware of alcohol effects	4	(14.3)
Planning goals and achieving success/change	4	(14.3)
Pregnancy	4	(14.3)
Wanting to please others—family, partner, employer	2	(7.1)
Lack of funds for alcohol	2	(7.1)
Treatment was fun	1	(3.6)
Avoided alcoholics; staying away from drinking friends	1	(3.6)
Fearing abandonment by partner	1	(3.6)
Didn't want to be like mother; fear of setting a bad example	1	(3.6)
Antabuse	1	(3.6)
Religious beliefs	1	(3.6)
CPS involvement, fear of losing custody	1	(3.6)
Care giving responsibilities	1	(3.6)
Willpower, stubborn, persistence, chose to quit	1	(3.6)
Fear of incarceration, court ordered	1	(3.6)

Table V.13 (cont.). Maternal Sobriety Attempts: *Least successful attempt.*

Characteristic	n = 45 out of 80	
Reasons she attributed most to her <i>failure</i> in trying to stop drinking during this attempt ^{a186c} (<i>open-ended question; can record >1 reason</i>)		
	n	(valid %)
Support network drinking—family, partner, friends	14	(33.3)
Stopped AA/sponsor/treatment	7	(16.7)
Wanted to drink; likes the taste of alcohol	8	(19.0)
Mental health symptoms increased	5	(11.9)
Domestic violence; relationship problems; emotional abuse	5	(11.9)
Abandonment; perceived abandonment	3	(7.1)
Gave up trying; didn't try; didn't care	3	(7.1)
Disease of alcohol; didn't understand alcoholism	3	(7.1)
Denied drinking was a problem, doesn't need help, reduced use	2	(4.8)
Lack of structure: in treatment, by herself	2	(4.8)
Too many barriers to achieving goals; lack of hope	2	(4.8)
Advised to moderate by M.D., told she wasn't an alcoholic	2	(4.8)
CPS pressure; CPS didn't acknowledge her accomplishments	2	(4.8)
Fear of life without alcohol	2	(4.8)
Crisis, stressed, unable to cope (e.g.: financial, family, change)	2	(4.8)
Wasn't ready to discuss use; wasn't ready to quit	2	(4.8)
Lost employment	1	(2.4)
Delivered baby	1	(2.4)
Traumatic life events (e.g.: suicide, murder, attacks, etc.)	1	(2.4)
Lacked support	1	(2.4)
Withdrawal symptoms	1	(2.4)
Returned to or continued drug use	1	(2.4)
Amount of treatment cost that she paid for herself ^{a180}		
	n	(valid %)
None of it	0	(0.0)
Part of it	2	(50.0)
Most of it	0	(0.0)
All of it	2	(50.0)

Table V.13 (cont.). Maternal Sobriety Attempts: *Least successful attempt.*

Characteristic	n = 45 out of 80	
Experiences during this attempt to stop drinking <i>(close-ended question)</i>	n	(valid %)
Loss or fear of loss of custody of her <i>children</i> ^{a181a}	12	(40.0)
Loss or fear of loss of her <i>partner/spouse</i> ^{a181b}	8	(22.2)
Lack of <i>family support</i> to stop drinking ^{a181c}	14	(35.0)
Loss or fear of loss of her <i>job</i> ^{a181d}	4	(14.3)
Loss or fear of loss of her <i>housing</i> ^{a181e}	7	(17.9)
Other fears experienced while in treatment ^{alctxl5} <i>(open-ended question; can record >1 reason)</i>	n	(valid %)
Fear of relapse; getting caught drinking; using drugs	4	(19.0)
Belongings being stolen or used: money, car, etc.	3	(14.3)
Delusions, hallucinations, losing mind, suicide, depression	2	(9.5)
Afraid of treatment; afraid of co-ed treatment	2	(9.5)
Financial concerns (e.g.: homelessness, losing insurance, SSI pressure)	2	(9.5)
Fear of physical health; dying	1	(4.8)
No transportation	1	(4.8)
Fear for health of baby	1	(4.8)
Loneliness: loss of family, friends, partner	1	(4.8)
Fear of losing dignity, self-esteem, self-respect	1	(4.8)
Not seeing kids; neglecting kids	1	(4.8)
Fear of killing or injuring others; own anger/rage	1	(4.8)
Feared for own life	1	(4.8)
Feared for children's lives/safety	1	(4.8)
Fear of failing education	1	(4.8)
Afraid of being made fun of (in treatment; by friends)	1	(4.8)
Afraid (no reason given)	1	(4.8)

Table V.14. Maternal Sobriety Attempts: *Most successful attempt.*

Characteristic	n = 65 out of 80			
Age (yr) at start of this sobriety attempt ^{age255}	mean	(S.D.)	min. - max.	n
	31.4	(6.8)	19.5 - 52.2	67
Who tried to get you to stop drinking or go into treatment? (can select >1 choice)			n	(valid %)
No one helped ^{a233a}			16	(24.2)
Clergy ^{a233b}			1	(1.5)
Counselor or therapist ^{a233c}			6	(9.1)
Parent(s) ^{a233d}			8	(12.1)
Grandparent(s) ^{a233e}			1	(1.5)
Other family member(s) ^{a233f}			15	(22.7)
Friend ^{a233g}			14	(21.2)
Husband/boyfriend/partner ^{a233h}			17	(25.8)
Lawyer(s) ^{a233i}			1	(1.5)
Nurse or doctor ^{a233j}			2	(3.0)
WIC/AFDC/Medicaid caseworker ^{a233k}			1	(1.5)
Other ^{a233l}			22	(33.3)
Were you getting health care at any of the following types of clinics at this time? (can select >1 choice)			n	(valid %)
Family planning ^{a234a}			1	(1.5)
General public health clinic ^{a234b}			9	(13.6)
Private medical doctor ^{a234c}			26	(39.4)
Emergency room ^{a234d}			2	(3.0)
Other ^{a234e}			6	(9.1)
Not receiving any health care at the time ^{a234h}			21	(31.8)
How many drinks did you usually drink on a single drinking occasion just before this attempt? (1 drink = 1/2 oz absolute alcohol) ^{a235}	mean	(S.D.)	min. - max.	n
	19.9	(20.7)	0.0 - 133.3	64
What type of beverage did you usually drink before this attempt ^{a236}			n	(valid %)
Ordinary table wine			5	(7.7)
Fortified wine			3	(4.6)
Beer			29	(44.6)
Wine coolers			0	(0.0)
Liquor			25	(38.5)
Other			2	(3.1)
Unknown			1	(1.5)

Table V.14 (cont.). Maternal Sobriety Attempts: *Most successful attempt.*

Characteristic	n = 65 out of 80			
How often did you drink just before this attempt? ^{a237}			n	(valid %)
Daily			31	(47.7)
A few times a week			16	(24.6)
Once a week			4	(6.2)
Once every month or two			3	(4.6)
Occasional binge (a lot every couple of weeks)			3	(4.6)
Other			7	(10.8)
Unknown			1	(1.5)
What is the most number of drinks that you drank on a single occasion just before this attempt? ^{a238} <i>(1 drink = ½ oz absolute alcohol)</i>	mean	(S.D.)	min. - max.	n
	27.7	(26.9)	1.0 - 150.0	63
How often did you drink that many drinks on a single occasion just before this attempt? ^{a239}			n	(valid %)
Daily			14	(21.5)
A few times a week			16	(24.6)
Once a week			11	(16.9)
Once every month or two			8	(12.3)
Occasional binge (a lot every couple of weeks)			6	(9.2)
Other			9	(13.8)
Unknown			1	(1.5)

Table V.14 (cont.). Maternal Sobriety Attempts: *Most successful attempt.*

Characteristic	n = 65 out of 80	
What motivated you to try to stop drinking? ^{a240 a286a} (open-ended question; can record >1 reason)	n	(valid %)
CPS/IHS involvement: lost custody, fear of losing custody	21	(32.8)
Care giving responsibilities	11	(17.2)
Partner, friend, family support, a non-drinking partner	10	(15.6)
Stressed, feeling out of control, afraid	10	(15.6)
Incarceration, fear of incarceration	9	(14.1)
Physical health concerns; hospitalized; dying	8	(12.5)
Pregnancy	7	(10.9)
Tired of effects of alcohol on lifestyle (e.g.: no money; loss of home)	6	(9.4)
Decided to stop; didn't want to drink; acknowledged problem	6	(9.4)
Mental health problem (e.g.: fear of psychosis; suicidal; depressed)	5	(7.8)
Traumatic life events (e.g.: murder; accidental death; shooting)	3	(4.7)
Alcohol-related death of family member	3	(4.7)
Religious beliefs or experience	2	(3.1)
Gave birth to child damaged by alcohol	2	(3.1)
Domestic violence; partnership problems	2	(3.1)
Started education	2	(3.1)
Health care providers' concern for children	1	(1.6)
Needed to control anger; thoughts of killing others or children	1	(1.6)
Left partner; partner out of home	1	(1.6)
Didn't want to be like own mother	1	(1.6)

Table V.14 (cont.). Maternal Sobriety Attempts: *Most successful attempt.*

Characteristic	n = 65 out of 80			
Motivating reasons for wanting to stop drinking just before this attempt ^{a241} (<i>close-ended question</i>)			n	(valid %)
Encouraged by her partner ^{a241a}			23	(36.5)
Worried about how her alcohol use was affecting her kids ^{a241b}			48	(77.4)
Encouraged by other family members ^{a241c}			34	(53.1)
Worried her health was in danger if she did not stop ^{a241d}			43	(67.2)
Feared she would lose your children if she did not stop ^{a241e}			40	(66.7)
Feared she would lose your partner if she did not stop ^{a241f}			20	(32.3)
Feared she would lose your job if she did not stop ^{a241g}			4	(7.3)
CPS said she had to get treatment if she wanted to keep her kids ^{a241h}			18	(29.0)
She was pregnant ^{a241i}			8	(13.3)
Had a partner at the time she was trying to stop drinking ^{a244}			n	(valid %)
			45	(68.2)
Partner had a drinking problem at this time ^{a245}			n	(valid %)
			31	(68.9)
Number of children she was taking care of at the time ^{a246}	mean	(S.D.)	min. - max.	n
	1.6	(1.5)	0 - 5	62
Pregnant at the time she tried to stop drinking ^{a247}			n	(valid %)
			9	(14.1)
Housing at the time she tried to stop drinking ^{a248}			n	(valid %)
Permanent, stable			45	(68.2)
Transient, emergency shelters			2	(3.0)
Living with friends or relatives			13	(19.7)
Homeless (without shelter)			5	(7.6)
Jail, long-term			0	(0.0)
Transitional drug-free housing			1	(1.5)
Other			0	(0.0)
Employed at the time she tried to stop drinking ^{a249}			n	(valid %)
			14	(21.9)
Main source(s) of household income at the time she tried to stop drinking ^{a250}			n	(valid %)
None			2	(3.1)
Her own employment			4	(6.2)
Husband or partner's employment			7	(10.8)
Both employed			3	(4.6)
Parents and/or family support			1	(1.5)
Public assistance			37	(56.9)
Unemployment insurance/social security			9	(13.8)
Family Independent Program			0	(0.0)
Other			2	(3.1)

Table V.14 (cont.). Maternal Sobriety Attempts: *Most successful attempt.*

Characteristic	n = 65 out of 80	
Gross yearly household income at this time ^{a251}	n	(valid %)
Less than \$10,000	52	(80.0)
\$10,000 to \$29,999	9	(13.8)
\$30,000 to \$49,999	3	(4.7)
\$50,000 to \$69,999	0	(0.0)
\$70,000 or more	1	(1.5)
Use of illicit or prescription drugs at this time ^{a252}	n	(valid %)
Illicit only	18	(28.1)
Prescription only	4	(6.3)
Illicit and prescription	3	(4.7)
Felt she needed treatment for her alcohol use at this time ^{a253}	n	(valid %)
No	27	(41.5)
Yes	36	(55.4)
Uncertain	2	(3.1)
Believed that treatment would help her stop drinking ^{a254}	n	(valid %)
No	23	(37.1)
Yes	37	(59.7)
Uncertain	2	(3.2)
Was seeking help or treatment from an agency or person outside her home ^{a256}	n	(valid %)
Yes	51	(76.1)

Table V.14 (cont.). Maternal Sobriety Attempts: *Most successful attempt.*

Characteristic	n = 65 out of 80			
Reasons for not wanting to seek formal treatment ^{a257 aletxm1} (open-ended question; can record >1 reason)	n			(valid %)
Didn't believe in it; didn't need it; can quit on own	11			(50.0)
Didn't consider formal treatment, didn't know about it	3			(13.6)
Child care responsibilities, no funds for sitter, no daycare	3			(13.6)
Could do it alone; had tools/addiction education	3			(13.6)
Didn't have problem with alcohol; denial, everyone drinks	3			(13.6)
Failed before	2			(9.1)
No funds; lack of medical coverage; fear of losing medical coverage	2			(9.1)
Pregnancy	1			(4.5)
Used AA	1			(4.5)
No treatment available; couldn't get in; didn't know how to	1			(4.5)
Partner gone/incarcerated	1			(4.5)
Afraid of treatment; didn't know what it was like	1			(4.5)
Had new partner	1			(4.5)
Didn't want to be like mother	1			(4.5)
Someone she knew did one or more of the following to help her get into treatment (close-ended question; can select >1 choice)	n			(valid %)
Made an appointment for her with a counselor ^{a258a}	13			(28.9)
Took her to a treatment program ^{a258b}	20			(44.4)
Took her to a hospital, doctor or clinic ^{a258c}	9			(20.0)
Introduced her to staff or women in a treatment program ^{a258d}	10			(22.2)
Gave her the name or number of a program ^{a258e}	20			(44.4)
Gave her information about addiction ^{a258f}	18			(40.0)
Introduced her to a recovering alcoholic or addict ^{a258g}	17			(37.8)
Took her to an AA meeting ^{a258h}	15			(33.3)
Talked to her about giving up alcohol ^{a258i}	32			(71.1)
Was on a waiting list to enroll in alcohol treatment ^{a262}	n			(valid %)
	20			(40.0)
Was admitted to an alcohol treatment facility ^{a263}	n			(valid %)
	43			(86.0)
Length of time (days) it took to get admitted to treatment facility ^{a264}	mean	(S.D.)	min. - max.	n
	25.4	(52.8)	0.0 - 270.0	42

Table V.14 (cont.). Maternal Sobriety Attempts: *Most successful attempt.*

Characteristic	n = 65 out of 80			
Type of treatment program admitted to ^{a265}			n	(valid %)
Inpatient only			10	(23.3)
Outpatient only			9	(20.9)
Inpatient and outpatient			24	(55.8)
Length (days) of inpatient program that was recommended ^{a266}	mean	(S.D.)	min. - max.	n
	50.4	(49.6)	21 - 270	34
Completed inpatient program ^{a267}			n	(valid %)
No			1	(2.9)
Yes			33	(97.1)
Still attending			0	(0.0)
Reasons for not completing the inpatient program ^{a268 alctxm2}			n	(valid %)
Premature labor			1	(100.0)

Table V.14 (cont.). Maternal Sobriety Attempts: *Most successful attempt.*

Characteristic	n = 65 out of 80			
Length (days) of outpatient program that was recommended ^{a269}	mean	(S.D.)	min. - max.	n
	408.9	(333.8)	42 - 1275	29
Completed outpatient program ^{a270}			n	(valid %)
No			9	(27.3)
Yes			18	(54.5)
Still attending			5	(15.2)
Unknown			1	(3.0)
Reasons for not completing the outpatient program ^{a271 alctxm3}			n	(valid %)
<i>(open-ended question; can record >1 reason)</i>				
Relapsed; returned to drug use			3	(33.3)
Kicked out of treatment (e.g.: not following rules; fraternizing with men)			1	(11.1)
Used AA instead			1	(11.1)
Wanted to be with father of baby; children			1	(11.1)
Partner drinking			1	(11.1)
Being stalked			1	(11.1)
Emotional abuse by partner/family			1	(11.1)
Others in treatment relapsing			1	(11.1)
Did not care; did not want to quit/listen			1	(11.1)
Disliked treatment (e.g.: confrontation; listening to others' problems)			1	(11.1)
Unhappy			1	(11.1)
Outpatient not recommended			1	(11.1)
An aftercare program like AA was recommended ^{a272}			n	(valid %)
			43	(87.8)
Participated in an aftercare program ^{a273}			n	(valid %)
			47	(94.0)
Length (days) of participation in an aftercare program ^{a274}	mean	(S.D.)	min. - max.	n
	1075.6	(1372.8)	30 - 5931	43

Table V.14 (cont.). Maternal Sobriety Attempts: *Most successful attempt.*

Characteristic	n = 65 out of 80			
List of treatment facility services that patient felt they needed, wanted and/or received (<i>can select >1 choice</i>)	Needed n (valid %)	Wanted n (valid %)	Received n (valid %)	
Child care <small>a275an, a275aw, 275ar</small>	18 (41.9)	18 (41.9)	7 (16.3)	
Health care <small>a275bn, a275bw, a275br</small>	32 (76.2)	29 (69.0)	27 (64.3)	
Education programs / GED services <small>a275cn, a275cw, a275cr</small>	12 (28.6)	12 (28.6)	5 (11.9)	
Legal assistance <small>a275dn, a275dw, a275dr</small>	15 (35.7)	15 (35.7)	12 (28.6)	
All female treatment/counseling groups <small>a275en, a275ew, a275er</small>	25 (58.1)	25 (58.1)	23 (53.5)	
Match female patients with female counselors <small>a275fn, a275fw, a275fr</small>	25 (58.1)	24 (55.8)	26 (60.5)	
Professional staff of you own race/ethnicity <small>a275gn, a275gw, a275gr</small>	5 (11.9)	5 (11.9)	21 (50.0)	
Treatment for other drug dependencies <small>a275hn, a275hw, a275hr</small>	22 (52.4)	21 (50.0)	21 (50.0)	
Financial assistance <small>a275in, a275iw, a275ir</small>	30 (71.4)	30 (71.4)	26 (61.9)	
Help enrolling you in aftercare services <small>a275jn, a275jw, a275jr</small>	26 (61.9)	24 (57.1)	29 (69.0)	
Transportation to appointments <small>a275kn, a275kw, a275kr</small>	26 (61.9)	26 (61.9)	24 (57.1)	
If pregnant, special services to meet your needs <small>a275ln, a275lw, a275lr</small>	5 (11.6)	5 (11.6)	4 (9.5)	
Family planning services <small>a275mn, a275mw, a275mr</small>	8 (18.6)	8 (18.6)	5 (11.6)	
Food <small>a275nn, a275nw, a275nr</small>	21 (50.0)	21 (50.0)	20 (47.6)	
Clothing <small>a275on, a275ow, a275or</small>	19 (45.2)	18 (42.9)	18 (42.9)	
Open-ended response to what she felt she needed while in treatment <small>alctxm4</small> (<i>can record >1 choice</i>)			n	(valid %)
Help in relocating after discharge, finances, baby needs, clothing			6	(33.3)
Support of other women, mentors, validating who she was			3	(16.7)
Treatment appropriate for learning disabled			3	(16.7)
Mental illness treatment/counseling			2	(11.1)
Life skills education			1	(5.6)
More washing of clothes/towels; better food; more activities			1	(5.6)
Support			1	(5.6)
Help developing IEP for affected child, family care plans			1	(5.6)
Having children with her, parenting			1	(5.6)
State assistance in gaining custody of children			1	(5.6)
Able to successfully stop drinking during this attempt <small>a276</small>			n	(valid %)
			65	(97.0)
If yes, how long (days) did she maintain abstinence? <small>a277</small>	mean	(S.D.)	min. - max.	n
	1700.3	(1914.1)	17 - 8081	67

Table V.14 (cont.). Maternal Sobriety Attempts: *Most successful attempt.*

Characteristic	n = 65 out of 80	
Reasons she attributed most to her <i>success</i> in trying to stop drinking during this attempt ^{a286b} (<i>open-ended question; can record >1 reason</i>)		
	n	(valid %)
AA support, sponsors, mentors, treatment, advocates	25	(38.5)
Wanted to stop, became aware of alcohol effects	18	(27.7)
Social support (e.g.: tribe, partner, friend, family, employer, children)	20	(30.8)
Planning goals and achieving success/change	16	(24.6)
Religious beliefs	17	(26.2)
Mental health counseling; antidepressant/psychotic drugs	13	(20.0)
Care giving responsibility	11	(16.9)
Determination, persistence, choosing to quit	7	(10.8)
Alcohol education—understanding the disease	7	(10.8)
Structure of treatment; keeping busy	7	(10.8)
Pregnancy	5	(7.7)
Physical health concerns; health improved	4	(6.2)
CPS involvement; fear of losing custody	4	(6.2)
Will power; stubborn, persistence; chose to quit	4	(6.2)
No crisis; no longer homeless; improved relationship	4	(6.2)
Matured; learned about self	3	(4.6)
Family members/friends not drinking	3	(4.6)
Left partner	3	(4.6)
Didn't want to be like mother; fear of setting bad example	3	(4.6)
Hope; feeling accepted	2	(3.1)
Antabuse	2	(3.1)
Fear of relapse	2	(3.1)
Fear of incarceration; court ordered	2	(3.1)
Treatment was fun	1	(1.5)
Avoided alcoholics/drinking friends	1	(1.5)
No men in treatment	1	(1.5)
Lost taste and feel for alcohol	1	(1.5)
Fear of killing others	1	(1.5)
Lack of funds for alcohol	1	(1.5)
Switched to other drugs	1	(1.5)

Table V.14 (cont.). Maternal Sobriety Attempts: *Most successful attempt*.

Characteristic	n = 65 out of 80	
Reasons she attributed most to her <i>failure</i> in trying to stop drinking during this attempt ^{a286c} (<i>open-ended question; can record >1 reason</i>)		
Support network was drinking—family, partner, friends	n	(valid %)
Domestic violence; relationship problems, emotional abuse	11	(37.9)
Stopped AA/sponsor/treatment	7	(24.1)
Denied drinking was a problem; doesn't need help	5	(17.2)
Crisis (e.g.: financial, family, change)	5	(17.2)
Abandonment; perceived abandonment	4	(13.8)
Mental health symptoms increased	3	(10.3)
Traumatic life events (e.g.: suicide, murder, attacks, etc.)	2	(6.9)
Celebrations	2	(6.9)
Too many barriers to achieving goals; lack of hope	1	(3.4)
Stopped Antabuse	1	(3.4)
CPS pressure; CPS didn't acknowledge her accomplishments	1	(3.4)
Wanted to drink; likes the taste of alcohol	1	(3.4)
Gave up trying; did not try; did not care	1	(3.4)
Returned to or continued drug use	1	(3.4)
Drivers license returned	1	(3.4)
Amount of treatment cost that she paid for herself ^{a280}		
Part of it	n	(valid %)
Most of it	6	(60.0)
All of it	1	(10.0)
	3	(30.0)

Table V.14 (cont.). Maternal Sobriety Attempts: *Most successful attempt.*

Characteristic	n = 65 out of 80	
Experiences during this attempt to stop drinking <i>(close-ended question; can select >1 choice)</i>	n	(valid %)
Loss or fear of loss of custody of her <i>children</i> ^{a281a}	28	(46.7)
Loss or fear of loss of her <i>partner/spouse</i> ^{a281b}	14	(22.6)
Lack of <i>family support</i> to stop drinking ^{a281c}	15	(25.0)
Loss or fear of loss of her <i>job</i> ^{a281d}	4	(9.5)
Loss or fear of loss of her <i>housing</i> ^{a281e}	13	(20.6)
Other fears experienced while in treatment ^{alctxm5} <i>(open-ended question; can record >1 reason)</i>	n	(valid %)
Fear for physical health, dying	4	(16.7)
Fear of relapse; getting caught drinking; using drugs	4	(16.7)
Financial concerns (e.g.: homelessness, losing insurance, SSI pressure)	4	(16.7)
CPS threat, CPS not following through, not gaining custody	3	(12.5)
Feared starting over, being responsible, learning new things	3	(12.5)
Delusions, hallucinations, losing mind, suicide, depression	2	(8.3)
Loss of pet	2	(8.3)
Fear of effect on family; family demands	2	(8.3)
Fear for health of baby	1	(4.2)
Loneliness: loss of family, friends, partner	1	(4.2)
Not seeing kids; neglecting kids	1	(4.2)
Belongings being stolen or used: money, car, etc.	1	(4.2)
Afraid of treatment; afraid of co-ed treatment	1	(4.2)
Feared for own life	1	(4.2)
Feared leaving structure, safety, support of treatment	1	(4.2)
Fear of staying in recovery when living with partner	1	(4.2)
Afraid of being made fun of (in treatment; by friends)	1	(4.2)
Lack of stable social support	1	(4.2)

VI. Maternal Contrasts**VI.A. Overview**

In this section, the reader will find three tables describing contrasts between 1) women who had and had not achieved abstinence at the time of their child's FAS diagnosis, 2) women who had and had not achieved abstinence at the time of the study interview and 3) between a woman's most and least successful sobriety attempts.

These contrasts reflect one of the primary objectives of this study. It became clear, early in the implementation of this study, that the mothers of the children diagnosed with FAS were not all still drinking. Some of the women had already achieved the very goal we wanted to assist them in achieving; "sobriety". This provided an invaluable opportunity to learn from the women who had achieved sobriety to help the women who had not.

The statistical analyses presented in the following tables are exploratory and should not be over interpreted. More comprehensive analyses will be conducted and will be submitted for publication in the peer-reviewed medical literature in the fall of 1998.

VI.B. Contrasts between women who have and have not achieved abstinence

Table VI.15. Contrast between women who had and had not achieved abstinence at the time of their child's FAS diagnosis.

Characteristic	Abstinent at time of child's FAS diagnosis						Statistic	p-value
	Yes (n = 41)			No (n = 39)				
Race ^{mrace2}	n	(valid %)	n	(valid %)				
Caucasian	30	(73.2)	24	(61.5)			X ² = 4.1	0.39
Native American	7	(17.1)	12	(30.8)				
African American	2	(4.9)	3	(7.7)				
Hispanic	1	(2.4)	0	(0.0)				
Canadian Indian	1	(2.4)	0	(0.0)				
Age of mother in years	mean	(S.D.)	n	mean	(S.D.)	n		
At time of interview ^{ageint}	38.6	(8.2)	41	36.2	(7.8)	39	T = 1.3	0.19
At 1st abstinent attempt ^{agestop1}	25.7	(6.0)	41	26.0	(8.5)	33	T = -0.2	0.85
At 1st pregnancy ^{agepg1}	19.6	(4.1)	41	19.5	(3.4)	39	T = 0.1	0.91
At birth of child with FAS ^{agefas}	27.5	(5.0)	41	26.3	(6.3)	39	T = 0.9	0.37
When 1st started drinking ^{a7}	15.2	(4.3)	41	14.9	(3.9)	39	T = 0.4	0.67
Weschler Adult Intelligence Scale (revised) ^{waisr}	mean	(S.D.)	n	mean	(S.D.)	n		
	94.2	(15.3)	38	87.3	(14.5)	34	T = 2.0	0.05
Year of school completed at time of interview ^{school}	mean	(S.D.)	n	mean	(S.D.)	n		
	11.3	(3.0)	41	10.2	(2.6)	38	T = 1.7	0.09
Ever employed ^{d42}	n	(valid %)	n	(valid %)			FE	0.10
	40	(97.6)	34	(87.2)				
Gross yearly household income at time of birth of child with FAS ^{d52}	n	(valid %)	n	(valid %)				
< \$10,000	32	(78.0)	30	(76.9)			X ² = 4.3	0.23
10,000 - 29,999	6	(14.6)	8	(20.5)				
30,000 - 49,999	3	(7.4)	0	(0.0)				
50,000 - 69,999	0	(0.0)	1	(2.6)				
Sexually abused as a child (<17 yrs) ^{recd76}	n	(valid %)	n	(valid %)				
	21	(51.2)	22	(56.4)			X ² = 0.4	0.81

Table VI.15 (cont.). Contrast between women who had and had not achieved abstinence at the time of their child's FAS diagnosis.

Characteristic	Abstinent at time of child's FAS diagnosis						Statistic	p-value
	Yes (n = 41)			No (n = 39)				
Social Support Network								
at the time of the interview	mean	(S.D.)	n	mean	(S.D.)	n		
Mean # of support individuals _{ssqn}	18.6	(13.1)	41	10.9	(8.2)	39	T = 3.2	0.002
Mean level of satisfaction _{ssqs} on a 6-point Likert scale (6 = most satisfied)	5.5	(0.9)	41	4.9	(1.7)	39	T = 2.3	0.03
Lifetime Co-morbidities								
	n	(valid %)	n	(valid %)				
Generalized Anxiety _{qddenanx}	11	(26.8)	16	(42.1)	X ² = 2.0		0.15	
Agoraphobia _{qdagor}	15	(36.6)	14	(36.8)	X ² = .001		0.98	
Social phobia _{qdsocpho}	17	(41.5)	17	(44.7)	X ² = 0.1		0.77	
Simple phobia _{qdsimpho}	16	(39.0)	19	(50.0)	X ² = 1.0		0.33	
Post traumatic stress _{qdptsd}	29	(70.7)	32	(84.2)	X ² = 2.0		0.15	
Major depression _{qddepres}	26	(63.4)	21	(55.3)	X ² = 0.5		0.46	
Mania/Bipolar _{qdmmania}	10	(24.4)	7	(18.4)	X ² = 0.4		0.52	
Anorexia _{qdanorex}	0	(0.0)	0	(0.0)				
Bulimia _{qdbulim}	4	(9.8)	6	(15.8)		FE	0.51	
Antisocial personality _{qdanerso}	16	(39.0)	15	(39.5)	X ² = .002		0.97	

FE = Fisher's Exact test; T = t-test; X² = Chi-Square test

Table VI.16. Contrast between women who have and have not achieved abstinence at the time of the interview.

Characteristic	Abstinent at time of the interview <i>(alcestat = 1 or 2)</i>						Statistic	p-value
	Yes (n = 50)			No (n = 25)				
Race <small>mrace2</small>	n (valid %)			n (valid %)				
Caucasian	36	(72.0)	50	14	(56.0)	25	X ² = 4.2	0.37
Native American	10	(20.0)	50	8	(32.0)	25		
African American	2	(4.0)	50	3	(12.0)	25		
Hispanic	1	(2.0)	50	0	(0.0)	25		
Canadian Indian	1	(2.0)	50	0	(0.0)	25		
Age of mother in years	mean	(S.D.)	n	mean	(S.D.)	n		
At time of interview <small>ageint</small>	38.2	(8.3)	50	35.2	(7.5)	25	T = 1.6	0.12
At 1st abstinent attempt <small>agestop1</small>	25.4	(6.8)	49	25.3	(7.5)	22	T = 0.1	0.92
At 1st pregnancy <small>agepg1</small>	19.8	(4.0)	50	19.1	(3.4)	25	T = 0.8	0.46
At birth of child with FAS <small>agefas</small>	27.4	(5.5)	50	25.6	(5.7)	25	T = 1.3	0.20
When 1st started drinking <small>a7</small>	14.9	(4.5)	50	14.6	(3.2)	25	T = 0.3	0.80
Weschler Adult Intelligence Scale (revised) <small>waisr</small>	mean	(S.D.)	n	mean	(S.D.)	n		
	95.9	(13.9)	46	82.0	(12.3)	21	T = 3.9	0.000
Year of school completed at time of interview <small>school</small>	mean	(S.D.)	n	mean	(S.D.)	n		
	11.1	(3.1)	50	10.2	(2.4)	24	T = 1.4	0.18
Ever employed <small>d42</small>	n (valid %)			n (valid %)				
	48	(96.0)	50	22	(88.0)	25	FE	0.33
Gross yearly household income at time of birth of child with FAS <small>d51</small>	n (valid %)			n (valid %)				
< \$10,000	25	(50.0)	50	19	(76.0)	25	X ² = 7.3	0.12
10,000 - 29,999	19	(38.0)	50	3	(12.0)	25		
30,000 - 49,999	2	(4.0)	50	2	(8.0)	25		
50,000 - 69,999	2	(4.0)	50	1	(4.0)	25		
>= \$70,000	2	(4.0)	50	0	(0.0)	25		
Sexually abused as a child (<17 yrs) <small>reed76</small>	n (valid %)			n (valid %)				
	28	(56.0)	50	13	(52.0)	25	X ² = 0.1	0.74

Table VI.16 (cont.). Contrast between women who have and have not achieved abstinence at the time of the interview.

Characteristic	Abstinent at time of the interview (<i>alstat = 1 or 2</i>)						Statistic	p-value
	Yes (n = 50)			No (n = 25)				
Social Support Network								
at the time of the interview	mean	(S.D.)	n	mean	(S.D.)	n		
Mean # of support individuals <i>ssqn</i>	17.2	(13.4)	50	11.1	(6.8)	25	T = 2.6	0.01
Mean level of satisfaction <i>ssqs</i> on a 6-point Likert scale (6 = most satisfied)	5.4	(1.1)	50	4.7	(1.8)	25	T = 1.9	0.06
Lifetime Comorbidities								
	n	(valid %)	n	(valid %)				
Generalized Anxiety <i>qngenax</i>	16	(32.0)	11	(45.8)	X ² = 1.3		0.25	
Agoraphobia <i>qdagor</i>	16	(32.0)	11	(45.8)	X ² = 1.3		0.25	
Social phobia <i>qdsocpho</i>	22	(44.0)	11	(45.8)	X ² = 0.2		0.88	
Simple phobia <i>qdsimpho</i>	21	(42.0)	12	(50.0)	X ² = 0.4		0.52	
Post traumatic stress <i>qdptsd</i>	38	(76.0)	19	(79.2)	X ² = 0.1		0.76	
Major depression <i>qddepres</i>	32	(64.0)	14	(58.3)	X ² = 0.2		0.64	
Mania/Bipolar <i>qdmaia</i>	12	(24.0)	5	(20.8)	X ² = 0.1		0.76	
Anorexia <i>qdanorex</i>	0	(0.0)	0	(0.0)				
Bulimia <i>qdbulim</i>	7	(14.0)	2	(8.3)	FE		0.71	
Antisocial personality <i>qdanerso</i>	22	(44.0)	8	(33.3)	X ² = 0.8		0.38	

FE = Fisher's Exact test; T = t-test; X² = Chi-Square test

VI.C. Contrasts between a woman's most and least successful sobriety attempts.

Table VI.17. Contrasts between their most and least successful sobriety attempts among the 31 women who had achieved sobriety at the time of the interview and reported a most and least successful attempt. (alcstat 1 or 2)

Characteristic	Most Successful (n = 31)			Least Successful (n = 31)			Statistic	p-value
Age (yrs.) at sobriety attempt _{age 255, age 155}	mean	(S.D.)	n	mean	(S.D.)	n	pT = -6.6	0.000
	33.4	(6.7)	31	27.4	(6.8)	31		
Years since FAS diagnosis _{mostdiag, leasdiag}	mean	(S.D.)	n	mean	(S.D.)	n	pT = -6.6	0.000
	-2.6	(4.5)	31	-8.7	(5.4)	31		
Years since first sobriety attempt _{most1st, leas1st}	mean	(S.D.)	n	mean	(S.D.)	n	pT = -6.6	0.000
	8.7	(4.8)	31	2.7	(3.8)	31		
No. of preceding sobriety attempts _{b4most, b4least}	mean	(S.D.)	n	mean	(S.D.)	n	pT = -6.4	0.000
	3.1	(1.9)	31	1.0	(1.1)	31		
Who tried to get you to stop drinking or go into treatment?	n (valid %)			n (valid %)				
No one helped _{a233a, a133a}	7	(23.3)		7	(23.3)		M	1.00
Clergy _{a233b, a133b}	1	(3.3)		0	(0.0)		M	1.00
Counselor or therapist _{a233c, 133c}	2	(6.7)		2	(6.7)		M	1.00
Parent(s) _{a233d, a133d}	4	(13.3)		5	(16.7)		M	1.00
Grandparent(s) _{a233e, 133e}	1	(3.3)		1	(3.3)		M	1.00
Other family member(s) _{a233f, a133f}	8	(26.7)		9	(30.0)		M	1.00
Friend _{a233g, a133g}	6	(20.0)		0	(0.0)		M	0.03
Husband/boyfriend/partner _{a233h, a133h}	8	(26.7)		6	(20.0)		M	0.73
Lawyer(s) _{a233i, 133i}	0	(0.0)		0	(0.0)		--	--
Nurse or doctor _{a233j, a133j}	0	(0.0)		2	(6.7)		M	0.50
WIC/AFDC/Medicaid caseworker _{a233k, 133k}	0	(0.0)		0	(0.0)		--	--
Other _{a233l, a133l}	11	(36.7)		12	(40.0)		M	1.00
Were you getting health care at any of the following types of clinics at this time?	n (valid %)			n (valid %)				
Family planning _{a234a, a134a}	0	(0.0)		1	(3.6)		M	1.00
General public health clinic _{a234b, 134b}	2	(7.1)		4	(14.3)		M	0.50
Private medical doctor _{a234c, a134c}	9	(32.1)		9	(32.1)		M	1.00
Emergency room _{a234d, 134d}	1	(3.6)		1	(3.6)		M	1.00
Other _{a234e, a134e}	3	(10.3)		3	(10.3)		M	1.00
Not receiving care at the time _{a234h, a134h}	11	(37.9)		12	(41.4)		M	1.00

Table VI.17 (Cont.). Contrasts between their most and least successful sobriety attempts among all 31 women who had achieved sobriety at the time of the interview and reported a most and least successful attempt. (alcstat 1 or 2)

Characteristic	Most Successful (n = 31)			Least Successful (n = 31)			Statistic	p-value
How many drinks did you usually drink on a single drinking occasion just before this attempt? ^{a235, a135} <i>(1 drink = 1/2 oz. absolute alcohol)</i>	mean	(S.D.)	n	mean	(S.D.)	n	pT = -0.3	0.80
	21.7	(26.3)	29	20.5	(15.9)	29		
What type of beverage did you usually drink before this attempt ^{a236a, a136a}	n (valid %)			n (valid %)			Z = -0.7	0.49
Ordinary table wine	4 (13.8)			2 (6.9)				
Fortified wine	3 (10.4)			3 (10.3)				
Beer	11 (37.9)			12 (41.4)				
Wine coolers	0 (0.0)			0 (0.0)				
Liquor (cocktails)	10 (34.5)			12 (41.4)				
Other	1 (3.4)			0 (0.0)				
How often did you drink just before this attempt? ^{a237, a137}	n (valid %)			n (valid %)			Z = -0.4	0.72
Daily	16 (55.2)			14 (48.3)				
A few times a week	4 (13.8)			7 (24.2)				
Once a week	3 (10.3)			1 (3.4)				
Once every month or two	2 (6.9)			1 (3.4)				
Occasional binge	2 (6.9)			4 (13.8)				
Other	2 (6.9)			2 (6.9)				
What is the most number of drinks that you drank on a single occasion just before this attempt? ^{a238, a138} <i>(1 drink = 1/2 oz. absolute alcohol)</i>	mean	(S.D.)	n	mean	(S.D.)	n	pT = 0.5	0.63
	28.8	(28.4)	29	31.8	(26.0)	29		
How often did you drink that many drinks on a single occasion just before this attempt? ^{a239, a139}	n (valid %)			n (valid %)			Z = -0.3	0.77
Daily	8 (27.6)			6 (20.7)				
A few times a week	5 (17.2)			9 (31.0)				
Once a week	5 (17.2)			6 (20.7)				
Once every month or two	4 (13.8)			1 (3.4)				
Occasional binge	3 (10.4)			3 (10.4)				
Other	4 (13.8)			4 (13.8)				

Table VI.17 (Cont.). Contrasts between their most and least successful sobriety attempts among all 31 women who had achieved sobriety at the time of the interview and reported a most and least successful attempt. *(alcsat 1 or 2)*

Characteristic	Most Successful (n = 31)	Least Successful (n = 31)	Statistic	p-value
What motivated you to try to stop drinking? <small>a40, a286a, a186a</small> <i>(open-ended question; can record >1 reason)</i>	n (valid %)	n (valid %)		
AA support _1	0 (0.0)	1 (3.3)	M	1.00
Health care providers concern for children _2	0 (0.0)	0 (0.0)	--	--
Became employed _3	0 (0.0)	1 (3.3)	M	1.00
Physical health concerns, hospitalized, dying _a	3 (10.0)	6 (20.0)	M	0.63
Pregnancy _b	2 (6.7)	2 (6.7)	M	1.00
Religious beliefs or experiences _c	0 (0.0)	0 (0.0)	--	--
Gave birth to child damaged _d by alcohol	1 (3.3)	0 (0.0)	M	1.00
CPS/IHS involvement: fear of losing custody _e	12 (40.0)	5 (16.7)	M	0.09
Care giving responsibilities: children, ill partner _f	5 (16.7)	3 (10.0)	M	0.63
Mental health problem: fear of psychosis, suicidal _g	3 (10.0)	3 (10.0)	M	1.00
Traumatic events in life: murder, accidental death _h	2 (6.7)	1 (3.3)	M	1.00
Anger control need, thoughts of killing other, children _i	1 (3.3)	0 (0.0)	M	1.00
Partner, friend, family support, a non-drinking partner _j	6 (20.0)	0 (0.0)	M	0.03
Alcohol related death of a family member _k	2 (6.7)	0 (0.0)	M	0.50
Pressure from partner, family, employer _l	0 (0.0)	5 (16.7)	M	0.06
Domestic violence _m	0 (0.0)	0 (0.0)	--	--
Fear of incarceration _n	6 (20.0)	4 (13.3)	M	1.00
Lack of funds for alcohol _o	0 (0.0)	1 (3.3)	M	1.00
Left partner, partner out of home _p	0 (0.0)	1 (3.3)	M	1.00
Stressed, feeling out of control _q	6 (20.0)	4 (13.3)	M	0.69
Started education _r	0 (0.0)	2 (6.7)	M	0.50
Tired of tangible effects of alcohol on lifestyle _s	2 (6.7)	3 (10.0)	M	1.00
Decided to stop _t	4 (13.3)	0 (0.0)	M	0.13
Didn't want to be like mom _u	0 (0.0)	0 (0.0)	--	--
Stopped illicit drug use _v	0 (0.0)	1 (3.3)	M	1.00
Other _y	0 (0.0)	0 (0.0)	--	--

Table VI.17 (Cont.). Contrasts between their most and least successful sobriety attempts among all 31 women who had achieved sobriety at the time of the interview and reported a most and least successful attempt. (alctat 1 or 2)

Characteristic	Most Successful (n = 31)			Least Successful (n = 31)			Statistic	p-value
Motivating reasons for wanting to stop drinking just before this attempt. a241, a141	n (valid %)			n (valid %)				
Encouraged by her partner a	9	(33.3)		9	(33.3)		M	1.00
Worried how her alcohol use was affecting her kids b	19	(79.2)		17	(70.8)		M	0.69
Encouraged by family c	16	(55.2)		16	(55.2)		M	1.00
Worried her health was in d	21	(72.4)		10	(34.5)		M	0.003
Feared she'd lose her children e	14	(63.6)		10	(45.5)		M	0.29
Feared she'd lose her partner f	9	(37.5)		5	(20.8)		M	0.34
Feared she'd lose her job g	0	(0.0)		3	(13.0)		M	0.25
Required by CPS to keep kids h	9	(39.1)		6	(26.1)		M	0.45
She was pregnant i	2	(8.0)		4	(16.0)		M	0.69
Had a partner at the time she was trying to stop drinking a244, a144	n (valid %)			n (valid %)				
	19	(63.3)		19	(63.3)		M	1.00
Partner had a drinking problem at this time a245, a145	n (valid %)			n (valid %)				
	8	(61.5)		10	(76.9)		M	0.69
Number of children she was taking care of at the time a246, a146	mean	(S.D.)	n	mean	(S.D.)	n	pT = -0.1	0.92
	1.9	(1.6)	24	1.9	(2.0)	24		
Pregnant at the time she tried to stop drinking a247, a147	n (valid %)			n (valid %)				
	3	(10.7)		6	(21.4)		M	0.51
Housing at the time she tried to stop drinking a248, a148	n (valid %)			n (valid %)				
Permanent, stable	21	(70.0)		22	(73.4)		Z = -0.2	0.88
Transient, emergency shelters	1	(3.3)		0	(0.0)			
Living with friends or relatives	4	(13.3)		4	(13.3)			
Homeless (without shelter)	3	(10.1)		4	(13.3)			
Jail, long-term	0	(0.0)		0	(0.0)			
Transitional drug-free housing	1	(3.3)		0	(0.0)			
Other	0	(0.0)		0	(0.0)			
Employed at the time she tried to stop drinking a249, a149	n (valid %)			n (valid %)				
	1	(3.7)		12	(44.4)		M	0.003

Table VI.17 (Cont.). Contrasts between their most and least successful sobriety attempts among all 31 women who had achieved sobriety at the time of the interview and reported a most and least successful attempt. *(alcsat 1 or 2)*

Characteristic	Most Successful (n = 31)	Least Successful (n = 31)	Statistic	p-value
Main source(s) of household income at the time she tried to stop drinking ^{a250}	n (valid %)	n (valid %)		
None	1 (3.3)	2 (6.5)	Z = -2.7	0.007
Her own employment	0 (0.0)	9 (29.0)		
Husband or partner's employment	5 (16.7)	5 (16.1)		
Both employed	1 (3.3)	1 (3.2)		
Parents and/or family support	0 (0.0)	2 (6.5)		
Public assistance	16 (53.4)	7 (22.6)		
Unemp. insurance/social security	6 (20.0)	1 (3.2)		
Family Independent Program	0 (0.0)	0 (0.0)		
Other	1 (3.3)	4 (12.9)		
Gross yearly household income at this time ^{a251, a151}	n (valid %)	n (valid %)		
Less than \$10,000	22 (78.6)	19 (67.9)	Z = -0.5	0.63
\$10,000 to \$29,999	3 (10.7)	6 (21.4)		
\$30,000 to \$49,999	2 (7.1)	2 (7.1)		
\$50,000 to \$69,999	0 (0.0)	1 (3.6)		
\$70,000 or more	1 (3.6)	0 (0.0)		
Use of illicit or prescription drugs at this time ^{a252, a152}	n (valid %)	n (valid %)		
Illicit only	3 (60.0)	4 (80.0)	Z = -1.3	0.18
Prescription only	0 (0.0)	1 (20.0)		
Illicit and prescription	2 (40.0)	0 (0.0)		
Felt she needed treatment for her alcohol use at this time ^{a253, a153}	n (valid %)	n (valid %)		
	18 (66.7)	14 (51.9)	M	0.42
Believed that treatment would help her stop drinking ^{a254, a154}	n (valid %)	n (valid %)		
	18 (66.7)	12 (44.4)	M	0.21
Was seeking help from an agency or person outside her home ^{a256, a156}	n (valid %)	n (valid %)		
	27 (87.1)	20 (64.5)	M	0.09

Table VI.17 (Cont.). Contrasts between their most and least successful sobriety attempts among all 31 women who had achieved sobriety at the time of the interview and reported a most and least successful attempt. *(alcstat 1 or 2)*

Characteristic	Most Successful (n = 31)			Least Successful (n = 31)			Statistic	p-value
Reasons for not wanting to seek formal treatment ^{a257, a157} <i>alctxm1_, alctxl1_</i> <i>(open-ended question; can record >1 reason)</i>	n (valid %)			n (valid %)			M	(paired-n too low to report)
	--	--		--	--			
Someone she knew did one or more of the following to help her get into treatment ^{a258, a158} <i>(close-ended question)</i>	n (valid %)			n (valid %)				
Made an appointment for her with a counselor, ^a	3	(25.0)		3	(25.0)		M	1.00
Took her to a treatment program, ^b	8	(66.7)		7	(58.3)		M	1.00
Took her to a hospital, doctor or clinic, ^c	4	(33.3)		1	(8.3)		M	0.25
Introduced her to staff or women in a treatment program, ^d	4	(33.3)		3	(25.0)		M	1.00
Gave her the name or number of a program, ^e	4	(33.3)		6	(50.0)		M	0.63
Gave her information about addiction, ^f	6	(50.0)		4	(33.3)		M	0.50
Introduced her to a recovering alcoholic or addict, ^g	5	(41.7)		2	(16.7)		M	0.25
Took her to an AA meeting, ^h	6	(50.0)		2	(16.7)		M	0.13
Talked to her about giving up alcohol, ⁱ	9	(75.0)		5	(41.7)		M	0.13
Was on a waiting list to enroll in alcohol treatment ^{a262, a162}	n (valid %)			n (valid %)			M	0.63
	4	(26.7)		6	(40.0)			
Was admitted to an alcohol treatment facility ^{a263, a163}	n (valid %)			n (valid %)			M	0.38
	12	(75.0)		15	(93.8)			
Length of time (days) it took to get admitted to treatment facility ^{a264, a164}	mean	(S.D.)	n	mean	(S.D.)	n	pT = 1.8	0.11
	10.1	(11.7)	10	28.6	(29.3)	10		

Table VI.17 (Cont.). Contrasts between their most and least successful sobriety attempts among all 31 women who had achieved sobriety at the time of the interview and reported a most and least successful attempt. *(alcsat 1 or 2)*

Characteristic	Most Successful (n = 31)			Least Successful (n = 31)			Statistic	p-value
Type of treatment program admitted to ^{a265, a165}	n (valid %)			n (valid %)				
Inpatient only	2	(18.2)		5	(45.4)		Z = -1.3	0.20
Outpatient only	3	(27.3)		3	(27.3)			
Inpatient and outpatient	6	(54.5)		3	(27.3)			
Length (days) of inpatient program that was recommended ^{a266, a166}	mean	(S.D.)	n	mean	(S.D.)	n	pT = 0.2	0.84
	117.8	(106.6)	4	141.5	(152.5)	4		
Completed inpatient program ^{a267, a167}	n (valid %)			n (valid %)				
Yes	6	(100.0)		1	(16.7)		Z = -2.2	0.03
No	0	(0.0)		5	(83.3)			
Still attending	0	(0.0)		0	(0.0)			
Reasons for not completing the inpatient program ^{a268, a168 aletxc2} <i>(open-ended question; can record >1 reason)</i>	n (valid %)			n (valid %)			(paired-n too low to report)	
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Table VI.17 (Cont.). Contrasts between their most and least successful sobriety attempts among all 31 women who had achieved sobriety at the time of the interview and reported a most and least successful attempt. *(alctat 1 or 2)*

Characteristic	Most Successful (n = 31)			Least Successful (n = 31)			Statistic	p-value
Length (days) of outpatient program recommended <small>a269, a169</small>	mean	(S.D.)	n	mean	(S.D.)	n	pT = -1.0	0.37
	510.0	(301.3)	5	492.0	(327.4)	5		
Completed outpatient program <small>a270, a170</small>	n (valid %)			n (valid %)			Z = 0.0	1.00
No	2 (40.0)			2 (40.0)				
Yes	2 (40.0)			2 (40.0)				
Still attending	1 (20.0)			1 (20.0)				
Reasons for not completing the outpatient program <small>a271, a171, alctxm3, alctxl3</small> <i>(open-ended question; can record >1 reason)</i>	n (valid %)			n (valid %)			(paired-n too low to report)	
	-- --			-- --				
An aftercare program like AA was recommended <small>a272, a172</small>	n (valid %)			n (valid %)			M	0.45
	13 (86.7)			10 (66.7)				
Participated in an aftercare program <small>a273, a173</small>	n (valid %)			n (valid %)			M	0.06
	13 (86.7)			8 (53.3)				
Days of participation in an after-care program <small>a274, a174</small>	mean	(S.D.)	n	mean	(S.D.)	n	pT = -1.2	0.30
	1007.5	(1091.8)	6	394.5	(706.5)	6		
Number of patients who felt they wanted but did not receive the following treatment services <small>a275_r, a175_r</small>	n (valid %)			n (valid %)			(paired-n too low to report)	
	-- --			-- --				
Open-ended response to what she felt she needed while in treatment <small>alctxm4, alctxl4</small>	n (valid %)			n (valid %)			(paired-n too low to report)	
	-- --			-- --				

Table VI.17 (Cont.). Contrasts between their most and least successful sobriety attempts among all 31 women who had achieved sobriety at the time of the interview and reported a most and least successful attempt. (alcsat 1 or 2)

Characteristic	Most Successful (n = 31)	Least Successful (n = 31)	Statistic	p-value
Reasons she attributed most to her <i>success</i> in trying to stop drinking during this attempt ^{a286b_ a186b_} (open-ended question; can record >1 reason)	n (valid %)	n (valid %)		
Treatment was fun. [†]	0 (0.0)	1 (5.0)	M	1.00
Avoided alcoholics, avoided drinking friends [#]	0 (0.0)	1 (5.0)	M	1.00
Fearing abandonment by partner ^s	0 (0.0)	1 (5.0)	M	1.00
No men in treatment [@]	0 (0.0)	0 (0.0)	--	
Hope, feeling accepted [‡]	1 (3.3)	0 (0.0)	M	1.00
Wanting to please others ²	0 (0.0)	2 (10.0)	M	0.50
Planing and achieving goals ³	9 (30.0)	4 (20.0)	M	1.00
Determination, persistence ⁴	0 (0.0)	0 (0.0)	M	0.50
Lost taste and feel for alcohol ⁵	1 (3.3)	0 (0.0)	M	1.00
Fear of killing others ⁶	1 (3.3)	0 (0.0)	M	1.00
Antabuse ⁷	1 (3.3)	1 (5.0)	M	1.00
Fear of losing family, wanting to be a family again ⁸	0 (0.0)	0 (0.0)	--	--
Matured, learned about self ⁹	1 (3.3)	0 (0.0)	M	1.00
Physical health concerns ^a	1 (3.3)	0 (0.0)	M	1.00
Pregnancy ^b	1 (3.3)	1 (5.0)	M	1.00
Religious beliefs ^c	11 (36.7)	0 (0.0)	M	0.002
AA support, sponsors, mentors ^d	12 (40.0)	4 (20.0)	M	0.34
CPS, fear of losing custody ^e	1 (3.3)	1 (5.0)	M	1.00
Care giving responsibility ^f	7 (23.3)	0 (0.0)	M	0.03
Mental health counseling, antidepress/psychotic drugs ^g	7 (23.3)	3 (15.0)	M	0.69
Afraid of being killed ^h	0 (0.0)	0 (0.0)	--	--
Willpower ⁱ	1 (3.3)	1 (5.0)	M	1.00
Support from social network ^j	10 (33.3)	3 (15.0)	M	0.13
Family members/friends not drinking ^k	1 (3.3)	0 (0.0)	M	1.00
Angry at family, partner: wanted to prove she could quit ^l	0 (0.0)	0 (0.0)	--	--
Fear of relapse ^m	1 (3.3)	0 (0.0)	M	1.00
Fear of incarceration, court ordered ⁿ	2 (6.7)	1 (5.0)	M	1.00
Lack of funds for alcohol ^o	0 (0.0)	1 (5.0)	M	1.00

Table VI.17 (Cont.). Contrasts between their most and least successful sobriety attempts among all 31 women who had achieved sobriety at the time of the interview and reported a most and least successful attempt. (alctat 1 or 2)

Characteristic	Most Successful (n = 31)		Least Successful (n = 31)		Statistic	p-value
Reasons she attributed most to her <i>success</i> in trying to stop drinking during this attempt (continued) <i>a286b_, a186b_ (open-ended question; can record >1 reason)</i>	n (valid %)		n (valid %)			
Left partner _p	0 (0.0)		0 (0.0)		--	--
Crises resolved _q	2 (6.7)		0 (0.0)		M	0.50
Alc. educ.—understands disease _r	4 (13.3)		0 (0.0)		M	0.25
Family monitoring, pressure _s	0 (0.0)		0 (0.0)		--	--
Wanted to stop _t	12 (40.0)		3 (15.0)		M	0.07
Didn't want to be like mother _u	1 (3.3)		2 (10.0)		M	0.50
Switched to other drugs _v	1 (3.3)		0 (0.0)		M	1.00
Structure of treatment _w	3 (10.0)		3 (15.0)		M	0.25
Other _y	0 (0.0)		0 (0.0)		--	--
Reasons she attributed most to her <i>failure</i> in trying to stop drinking during this attempt <i>a286c, a186c (open-ended question; can record >1 reason)</i>	n (valid %)		n (valid %)			
	--	--	--	--	(paired-n too low to report)	
Able to successfully stop drinking during this attempt <i>a276, a176</i>	n (valid %)		n (valid %)			
	29(100.0)		20 (69.0)		M	0.004
If yes, how long (days) did she maintain abstinence? <i>a277, a177</i>	mean (S.D.)	n	mean (S.D.)	n		
	1776.8 (1650.4)	25	103.6 (103.0)	25	pT = -5.1	0.000
Was there a cost associated with stopping drinking? <i>a279, a179</i>	n (valid %)		n (valid %)			
Yes	5 (16.7)		4 (13.3)		Z = -0.4	0.71
No	()		()			
Experiences during this attempt to stop drinking <i>a281, a282 (close-ended question)</i>	n (valid %)		n (valid %)			
Fear of child custody loss _a	12 (57.1)		8 (38.1)		M	0.22
Fear of partner/spouse loss _b	7 (29.2)		4 (16.7)		M	0.51
Lack of <i>family support</i> to stop _c	6 (22.2)		10 (37.0)		M	0.22
Loss or fear of loss of her <i>job</i> _d	0 (0.0)		1 (5.9)		M	1.00
Loss or fear of loss of <i>housing</i> _e	6 (21.4)		5 (17.9)		M	1.00
Other fears experienced while in treatment <i>alctxm5 (open-ended question; can record >1 reason)</i>	n (valid %)		n (valid %)			
	--	--	--	--	(paired-n too low to report)	

M = McNemar's test; pT = paired t-test; Z = Wilcoxon Signed Rank test

VII. Future of the WA State FAS Diagnostic and Prevention Network

- A. The Washington State FAS Diagnostic and Prevention Network (FAS DPN) was funded in the 1995-97 biennium and renewed in the 1997-99 biennium by the Washington State Legislature. The program is administered through the Division of Alcohol and Substance Abuse which is part of the Washington State Department of Social and Health Services.

Funding supports the following programs:

1. **Diagnostic Program: Prevention of Secondary Disabilities**
Continuation of diagnostic services, treatment planning and referral services for patients with FAS and related conditions in all seven FAS DPN clinics. Four clinics are in heavily populated counties in Western Washington and three clinics are in the more rural Eastern Washington. In the next two years it is planned for the clinics to work increasingly independently of the University training staff. However, the sites will be linked by interactive video teleconferencing so that consultations among the clinic sites and the training staff will always be available to families in clinics anywhere in the state.
2. **Training Program**
The FAS DPN provides four different types of training opportunities.
 - A. One-day clinic observational training sessions on FAS referral, diagnosis and treatment planning for community-based professionals.
 - B. Student/intern/fellowship training on FAS screening, diagnosis and treatment planning.
 - C. One-day off-site trainings targeted to clinics, communities or institutions that provide services to high-risk populations and have requested training/diagnostic services in their community.
 - D. Three-day comprehensive training on FAS screening, diagnosis and prevention targeted to groups preparing to establish an FAS DPN clinic.
3. **Primary Prevention Program.**
This program will be modeled, in part, on the successful Parent-Child Assistance Program directed by Therese Grant, Ph.D. and Ann Streissguth, Ph.D. that brought high-risk mothers with newborns together with program advocates who help the women to clarify their needs and establish directions towards meeting their goals. That program is successful, in part, because the women are enrolled while pregnant and are subsequently at risk of losing their children if they failed to cooperate. In our program, another motivation will need to be identified since we will be targeting women before preferably before they get pregnant. Intervention services will be initially targeted at the 40 women who were identified in the CDC project as “at-risk” for giving birth to additional children with prenatal alcohol damage.
4. **Screening Program**
A pilot FAS screening project is underway using the computerized FAS photographic screening tool (Astley & Clarren, 1996) in a foster care population. The goal is to then use this tool to screen all children in foster care and in juvenile rehabilitation each year, state wide. Screen-positive children will be referred to the nearest FAS DPN clinic for appropriate diagnostic services and treatment planning. Birth mothers will be identified and encouraged

to participate in the FAS DPN primary prevention program. The FAS DPN database will be electronically linked to other appropriate State and agency data bases to assure that the correct diagnoses are available to all systems that need to know the health status of the patient seen in the FAS DPN clinics. This diagnosis on the child will also be linked to electronic files on the mother so that she can be provided with appropriate services in order to minimize the chance of a recurrent alcohol-exposed birth. All linkages will follow medical confidentiality policy.

5. Intervention Program

A sufficient number of patients with FAS have now been collected so that further studies of diagnostic and therapeutic interest can be carried out. Two projects are underway at this time.

1. Premaxillary growth in childhood in children with FAS.

It is hypothesized that the reason that the upper lip and philtrum become flattened and smoothed in childhood is due to an overgrowth of the premaxillary. Experience in craniofacial reconstruction would suggest that robust change in premaxillary growth is needed to cause mild soft tissue contour change. Direct evaluation of the premaxillary may therefore be a more sensitive assessment of the premaxillary distortion caused by alcohol teratogenesis than the soft tissue of the upper lip. (Omnell and Shashua, 1998).

2. Can children with FAS who have poor language processing and thus poor understanding of social interactions be directly taught to overcome the disability so that they can progress in this critical area of development. (Olswang and Coggins, 1996).

B. National Consortium on Fetal Alcohol Syndrome

We now have the ability, using techniques developed for the FAS DPN, to extend training beyond Washington State. Three sites have shown great interest in our approach and have adopted our methods. UCLA has opened an FAS clinic and is providing services in their catchment area. The Sisters of Notre Dame in Toledo, Ohio have organized a comprehensive clinic with plans for expansion through a health care network sponsored by Catholic Charities. The state of Minnesota plans to develop a state wide program modeled on ours with a training core at the University of Minnesota. We know of considerable other interest in several states and Canadian provinces. In February of 1998, the first meeting of the four core teams from Washington, Minnesota, Ohio and California will meet to discuss the possibility of establishing a multi-state FAS consortium to consider a common access data set for future clinical research. Representatives from the CDC have been invited to attend this meeting.

VIII. Publications, Presentations and Trainings**FAS Publications by the FAS DPN Core Staff.***Manuscripts published in peer-reviewed journals.*

Astley SJ, Magnuson SI, Omnell LM, Clarren SK. Fetal alcohol syndrome: Changes in craniofacial form with age, cognition and timing of ethanol exposure in the Macaque. (In press, *Teratology.*, May, 1998).

Astley SJ, Clarren SK. A case definition and photographic screening tool for the facial phenotype of fetal alcohol syndrome. *J Pediatrics*; 1996;129:33-41.

Astley SJ, Clarren SK. A fetal alcohol syndrome screening tool. *Alcoholism: Clinical and Experimental Research*, 1995;19(6):1565-1571.

Carmichael-Olson H. The effects of prenatal alcohol exposure on child development. *Infants and Young Children: An Interdisciplinary Journal of Special Care Practices*, 1994;6(3):10-25.

Carmichael-Olson H, Sampson PD, Barr HM, Streissguth A, Bookstein FL. Prenatal exposure to alcohol and school performance in late childhood: A longitudinal prospective study. *Development and Psychopathology*, 1992;4:341-359.

Carmichael-Olson H, Streissguth A, Sampson PD, Barr HM, Bookstein FL, Thiede K. Association of prenatal alcohol exposure with behavioral and learning problems in early adolescence. *Journal of the American Academy of Child and Adolescent Psychiatry*, 1997;36(9):1187-1194.

Coggins T, Friet T, Morgan T. Analyzing narrative productions in older school-age children and adolescents with FAS: an experimental tool for clinical application. *Clin Ling Phon* 1998;12: 221 - 236.

Hunt E, Streissguth A, Kerr B, Carmichael-Olson H. Mother's alcohol consumption during pregnancy: Effects on spatial-visual reasoning in 14-year-old children. *Psychological Science*, 1995;6(6):339-342.

Sampson PD, Kerr B, Streissguth A, Carmichael-Olson H, Bookstein FL, Barr HM, Thiede K. The effects of prenatal alcohol exposure on adolescent cognitive performance: A speed-accuracy trade-off. *Intelligence*.

Streissguth A, Barr HM, Carmichael-Olson H, Sampson PD, Bookstein FL, Burgess DM. Drinking during pregnancy decreases Word Attack and arithmetic scores on standardized tests: Adolescent data from a prospective longitudinal study. *Alcoholism: Clinical and Experimental Research*, 1994;18(2):248-254.

Streissguth A, Sampson PD, Carmichael-Olson H, Bookstein FL, Barr HM, Scott M, Feldman JJ, Mirsky AF. Maternal drinking during pregnancy: Attention and short-term memory performance

in 14-year-old children: A longitudinal prospective study. *Alcoholism: Clinical and Experimental Research*, 1994;18(1):202-218.

Manuscripts submitted to peer-reviewed journals.

Astley SJ, Clarren SK. Diagnosing and case-defining fetal alcohol syndrome: Introducing the 4-Digit Diagnostic Code. (submitted. 1998).

Publications in non peer-reviewed journals.

Researcher investigates language problems in children and adolescents with FAS. Coggins T. In: CHDD Outlook: News from the Center on Human Development and Disability at the University of Washington Health Sciences Center. Cheryl Dawes, editor, Vol. 10, #1, page 7, Winter, 1997.

CHDD researchers develop tool to aid in diagnosis of Fetal Alcohol Syndrome. Astley SJ, Clarren SK. In: CHDD Outlook: News from the Center on Human Development and Disability at the University of Washington Health Sciences Center. Cheryl Dawes, editor, Vol. 9, #1, page 7, Winter, 1996.

An insiders look at the Seattle's Pioneering Fetal Alcohol Syndrome Clinic. In: The Iceberg newsletter, Vol. 5, No. 2, Spring, 1995.

Senate Bill 5688: State of Washington, 54th Legislature, 1995 Regular Session, Senate Committee on Human Services and Corrections. Establishment of the Washington State FAS Diagnostic and Prevention Network.

Clarren SK, Astley SJ. A Screening Guide for Fetal Alcohol Syndrome. Sponsored by The Centers for Disease Control and Prevention, and the Washington State Department of Health, pp. 14, Second Edition, 1995.

Clarren SK, Astley SJ. A Screening Guide for Fetal Alcohol Syndrome. Sponsored by The Centers for Disease Control and Prevention, and the Washington State Department of Health, pp. 13, First Edition, 1993.

Chapters

Fetal Alcohol Syndrome: Diagnosis, Epidemiology, Prevention, and Treatment. K. Stratton, C. Howe, F. Battaglia Editors, Committee to Study Fetal Alcohol Syndrome, Institute of Medicine, National Academy Press, Washington D.C., pp. 213, 1996. Sterling Clarren, M.D. served on the IOM committee.

Carmichael-Olson H. Fetal alcohol syndrome. In: Sternberg RJ (Ed.) Encyclopedia of Human Intelligence. New York: MacMillan 1994, pp. 133-138.

Carmichael-Olson H. Maternal alcohol use and fetal development. In: Blechman E and Brownell K (Eds.) Behavioral Medicine for Women: A Comprehensive Handbook. New York: Guildford 1997, pp.

Carmichael-Olson H, Burgess DM. Early intervention with children prenatally exposed to alcohol and other drugs. In: Guralnick MJ (Ed.) *The Effectiveness of Early Intervention*. Baltimore, MD: Brookes 1997, pp. 109-146.

Carmichael-Olson H, Bookstein FL, Streissguth A, Barr HM, Sampson PD. Developmental research in behavioral teratology: The impact of prenatal alcohol exposure on child development. In: Friedman SL and Haywood HC (Eds.) *Developmental Follow-up: Concepts, Genres, Domains, and Methods*. Orlando, FL: Academic Press 1994, pp. 67-112.

Clarren SK, Astley SJ. The development of the fetal alcohol syndrome diagnostic and prevention network in Washington State. In: Streissguth A and Kanter J (Eds.) *The Challenge of Fetal Alcohol Syndrome: Overcoming Secondary Disabilities*. Seattle: University of Washington Press 1997, pp. 40-51.

Kopera-Frye K, Carmichael-Olson H, Streissguth A. Teratogenic effects of alcohol on attention. In: Burack J and Enns J (Eds.) *Attention, Development, and Psychopathology*. New York: Guilford 1997, pp. 171-204.

Streissguth A, Sampson PD, Barr HM, Bookstein FL, Carmichael-Olson H. Effects of prenatal alcohol and tobacco: Contributions from the Seattle Longitudinal Study and implications for public policy. In: Needleman HL and Bellinger D (Eds.) *Prenatal Exposure to Toxicants: Developmental Consequences*. Baltimore, MD: Johns Hopkins University Press 1994, pp. 148-183.

Books

Diagnostic Guide for Fetal Alcohol Syndrome and Related Conditions. Astley SJ and Clarren SK. pp. 93, March 1997. (2,000 copies printed by the UW Publications Services, March, 1997). Second edition accepted for publication by the University of Washington Press n 1998.

Abstracts

Astley, S.J., S.I. Magnuson, L.M. Omnell, S.K. Clarren, Departments of Epidemiology, Orthodontics and Pediatrics, University of Washington, Seattle, Washington. Fetal Alcohol Syndrome: Changes in craniofacial form with age, cognition and timing of ethanol exposure in the Macaque. *Teratology*, June, 1998.

Astley, S.J., Bailey D, Talbot T, Clarren SK. Primary Prevention of FAS: Targeting women at high risk through the FAS Diagnostic and Prevention Network. *Research Society of Alcoholism*, June, 1998.

Astley SJ, Clarren SK, Quinby R, Lair C. Academic/public health collaboration leads to establishment of FAS Clinical Network, diagnostic guide, screening tool, and screening programs. Assoc. Schools Public Health, 14th Annual Nat'l Preventive Med. Meeting, Atlanta, GA, March 20-23, 1997.

Clarren SK, Astley SJ. Development of the FAS Diagnostic and Prevention Network in Washington State. 1996 Annual Maternal, Infant, and Child Health Epidemiology Workshop, December 3-4, 1996, Atlanta GA.

Astley SJ, Clarren SK. Comprehensive lifetime profile of women who have given birth to a child with FAS: A high-risk target population for primary prevention of FAS. 1996 Annual Maternal, Infant, and Child Health Epidemiology Workshop, December 3-4, 1996, Atlanta GA.

Astley SJ, Clarren SK. A photographic screening tool for FAS, FAS Secondary Disabilities Conference, Seattle, WA, September, 1996.

Astley SJ, Clarren SK. A photographic screening tool for FAS. Research Society of Alcoholism, Washington DC, June 1996.

Astley SJ, Clarren SK. Development of a fetal alcohol syndrome diagnostic screening tool. Research Society of Alcoholism, Maui HI, June 20-24, 1994.

Bookstein F, Carmichael Olson H, Barr H. Measurement and analysis of main effects, covariates, and moderators in the behavioral teratology of alcohol. Biennial Meeting of the Society for Research in Child Development, 1995, p. 132.

Carmichael Olson H, Feldman J, Streissguth A, Gonzalez R. Neuropsychological deficits and life adjustment in adolescents and adults with fetal alcohol syndrome. Alcoholism: Clinical and Experimental Research, Abstract. 16:(2) 380, 1992.

Carmichael Olson H, Streissguth A, Sampson P, Barr H, Bookstein F, Thiede K. Prenatal alcohol exposure and behavioral and learning problems in early adolescence. Journal of the International Neuropsychological Society, Abstract. 1:(2) 174, 1995.

Randels S, Clarren SK, Hymbaugh K, Fineman RM. FAS population-based surveillance at elementary school entrance - A pilot study. Alcoholism, Clinical and Experimental Research, Abstract. 18:(2) 503, 1994.

Sampson P, Bookstein F, Streissguth A, Carmichael Olson H, Barr H. Detection of individual children with alcohol-related learning and behavioral problems at 14 years: Lifespan trajectories on multiple assessments. Journal of the International Neuropsychological Society, Abstract. 1:(2) 175, 1995.

Streissguth A, Sampson P, Carmichael Olson H, Thiede K, Bookstein F, Barr H. Latent variable calibration of the effects of prenatal alcohol exposure on adolescent neuropsychologic performance. *Journal of the International Neuropsychological Society*, Abstract. 1:(2) 174, 1995.

Presentations by Drs. Clarren and Astley to professional groups about this CDC FAS Project.

1. Fetal Alcohol Syndrome Prevention and Intervention. Keynote speaker. Opening of Fetal Alcohol Syndrome Center. University of North Dakota. Fargo, North Dakota 4/14/94.
2. On the Front Line of Fetal Alcohol Syndrome in Seattle Seminar. Northwest Society for Developmental and Behavioral Pediatrics and Society for Developmental Pediatrics. Convention Center. Seattle, WA 5/1/94.
3. Long-Term Expectations for Individuals with FAS/FAE. Educational Teleconference Series. Family Empowerment Network. University of Wisconsin-Madison. National radio broadcast 9/22/94.
4. Fetal Alcohol Syndrome. Section on Developmental Pediatrics. American Academy of Pediatrics. Convention Center. Dallas, Texas 10/23/94.
5. Developing an Interdisciplinary FAS Clinic. Grand Rounds. Children's Hospital of Los Angeles. Los Angeles, CA 1/20/95.
6. FAS & FAE: From Diagnosis to Treatment and Prevention. 150th Anniversary meeting. North Pacific Pediatric Society. Four Seasons Olympic Hotel. Seattle, WA 3/10/95.
7. Screening and Surveillance of FAS. Grand Rounds. Children's Hospital and Medical Center. Seattle, WA 3/17/95.
8. Fetal Alcohol Syndrome. "Spectrum of Developmental Disabilities XVII: Behavior Belongs in the Brain - Neurobehavioral Syndromes". Kennedy Krieger Institute. Johns Hopkins University. Baltimore, MD 3/28/95.
9. Fetal Alcohol Syndrome. "The Child with Special Needs". A National Conference Addressing Issues in Early Development. Hyatt Regency Hotel. San Francisco, CA 4/27/95
10. FAS Symposium. Keynote Speaker. M-First Outreach Summer Institute. St. Martin's College. Lacey, Washington 6/21/95.
11. Fetal Alcohol Syndrome. Indian Health Service Pediatrician's Meeting. Westin Hotel. Seattle, Washington 8/31/95.
12. Fetal Alcohol Syndrome. 23rd Annual Advances in Family Practice. Warren G. Magnuson Health Science Center. University of Washington. Seattle, Washington 9/12/95.

13. Fetal Alcohol Syndrome - Intervention. Yukon-Kuskokwim Delta Regional Hospital. Bethel, Alaska 10/10/95.
14. Fetal Alcohol Syndrome. Grand Rounds. St. Luke's Regional Medical Center. Boise, Idaho 10/25/95.
15. Development FAS Intervention Programs. Fetal Alcohol Syndrome Symposium. Arc of Hennepin County. Holiday Inn, Metrodome. Minneapolis, Minnesota 3/12/96.
16. Fetal Alcohol Syndrome Prevention. Pediatric Grand Rounds. Yakima WAMI Program. Yakima, Washington 3/20/96.
17. Fetal Alcohol Syndrome. Pediatric Evenings. The Campus Club. University of Minnesota. Minneapolis, Minnesota 3/22/96.
18. Screening and Surveillance of FAS. Center for Human Development and Disability. University of Washington. Seattle, WA 4/30/96.
19. Fetal Alcohol Syndrome Workshop. 10th International Congress on Circumpolar Health. Egan Center.
20. Anchorage, Alaska 5/21/96.
21. Development of the Fetal Alcohol Syndrome Network. American Association on Mental Retardation. Marriott Hotel, River Center. San Antonio, Texas 5/28/96.
22. Screening and Surveillance of FAS.. Fetal Alcohol Syndrome Study Group, Research Society of Alcoholism. Hyatt Hotel. Washington, DC, 6/22/96.
23. Craniofacial development in *Macaca nemestrina* exposed to in-utero ethanol.. Fetal Alcohol Syndrome Study Group, Research Society of Alcoholism. Hyatt Hotel. Washington, DC, 6/22/96.
24. FAS Diagnostic and Prevention Network.. FAS Secondary Disabilities Conference. University of Washington. Seattle, WA, 9/5/96.
25. FAS Photographic Screening Tool. FAS Secondary Disabilities Conference. University of Washington. Seattle, WA, 9/5/96.
26. FAS Diagnostic and Prevention Network.. FAS Conference. Vancouver British Columbia, November, 1996.
27. FAS Diagnostic and Prevention Network and the 4-Digit Diagnostic Code for FAS.. NIAAA. Washington DC, November, 1996.

28. Comprehensive lifetime profile of women who have given birth to a child with FAS: A high-risk target population for primary prevention of FAS.. 1996 Annual Maternal, Infant, and Child Health Epidemiology Workshop,. Atlanta GA, December 3, 1996.
29. Development of the FAS Diagnostic and Prevention Network in Washington State.. 1996 Annual Maternal, Infant, and Child Health Epidemiology Workshop,. Atlanta GA, December 4, 1996.
30. FAS Photographic Screening/Surveillance Tool. CDC, Brown Bag. Atlanta GA, December 5, 1996.
31. Development of the FAS Diagnostic and Prevention Network in Washington State and the Photographic Screening Tool.. CSAP. Washington DC, December 11, 1996.
32. Interagency Coordinating Committee on FAS: National Institute of Alcohol Abuse and Alcoholism and CDC: April 7, 1997, Bethesda, MD. Speaker - A new diagnostic guide to FAS and related conditions.
33. Extramural Scientific Advisory Board Meeting on FAS, National Institute of Alcohol Abuse and Alcoholism: May 12-13, 1997, Bethesda, MD. Speaker - Diagnostic Issues.
34. The approach of the Fetal Alcohol Syndrome Diagnostic and Prevention, Network Grand Rounds, Kapiolani Medical Center and Grand Rounds, Tripler Medical Center Honolulu, Hawaii, January 28, 1997.
35. New diagnostic procedures and approaches to alcohol teratogenesis. Grand Rounds, Medical Genetics, University of Washington Seattle, Washington, February 25, 1997.
36. Fetal Alcohol Syndrome as a model for social communication deficits in children with disabilities. Speech and Hearing Sciences, Summer session, University of Washington, Seattle, Washington, June 23, 1997.
37. Interagency Coordinating Committee on FAS: National Institute of Alcohol Abuse and Alcoholism and CDC. June 25, 1997, Bethesda, Maryland. A proposal for a clinic case definition of FAS.

FAS Training Conducted at the U.W. FAS Clinic from January, 1993 through June 30, 1997.Training Students

Number	Institution
17	Medical students, UW
19	Visiting medical students:
	Washington University-St. Louis
	Albert Einstein
	Cornell
	New York Medical College
	Penn State
	University of Michigan
	Mayo Clinic
	Seattle Pacific University
	Seattle University
	Oregon State University
	Tulane
	University of Alabama
	Oakland Children's Hospital
	University of Massachusetts
	University of New Mexico
	Baylor College of Medicine
	Georgetown University School of Medicine
	Harvard
	Northwestern University
20	Students in speech/language pathology, UW
9	Students in education, UW
4	Students in social work
2	MPH candidates
1	MS in physical therapy candidate
3	Nursing, UW
2	Epidemiology, UW
30	Students, Other

Training WA State and County Agency Personnel

Number	Profession
1	Mary Lowry, First Lady, State of Washington
1	Chris Lair, Assoc. Dir., Division of Alcohol & Substance Abuse, State of Washington
10	Public Health Nurse, Seattle/King County Health Department
2	Physicians, Seattle/King County Health Department
1	Public Health Nurse, Snohomish County Health Department
1	Public Health Nurse, Spokane County Health Department
1	Family Service Director, Spokane County Health Department
1	Prenatal Outreach Worker, Seattle/King County Health Department
1	Director, Substance Abuse Services, Spokane County
1	FAS Program Director, Spokane County
1	Family Resource Coordinator, Seattle/King County Health Department
1	King County Department of Health, FAS

Training Social/Health Care/Educational Professionals

Number	Profession
11	Speech and Language Pathologist
22	Educator
13	Family Counselor
27	Physicians/Psychiatrists/ Geneticists
19	Social Services
5	Child Development Specialist
1	Theology Grad Student
2	Criminal Justice Worker
14	Psychologist
6	Alcohol Treatment Worker
12	Nursing
5	Patient/Family Advocate
1	Physician Assistant
7	OT/PT
1	Speaker
1	Vocational Consultant
5	Prevention Specialist
10	Clinical/Medical Staff
4	March of Dimes
1	Acupuncturist
5	Native American Representative
1	Research Specialist
1	Adoption Support
14	FAS Clinical Team / Coordinator

IX. References

- Astley SJ and Clarren SK. A case definition and photographic screening tool for the facial phenotype of fetal alcohol syndrome. *J. Pediatrics* 1996;129:33-41.
- Astley SJ and Clarren SK. *Diagnostic Guide for Fetal Alcohol Syndrome and Related Conditions*, University of Washington, Seattle, WA, pp. 93, 1997. Second edition scheduled for publication by the University of Washington Press in the fall of 1998.
- Clarren SK, Astley SJ. The development of the fetal alcohol syndrome diagnostic and prevention network in Washington State. In: Streissguth A and Kanter J (Eds.) *The Challenge of Fetal Alcohol Syndrome: Overcoming Secondary Disabilities*. Seattle: University of Washington Press 1997, pp. 40-51.
- Clarren SK, Smith DW. The fetal alcohol syndrome. *New England J. of Medicine* 1978;298:1063-1067.
- Coggins, T., et al., Analyzing narrative productions in older school-age children and adolescents with FAS: an experimental tool for clinical application. *Clin Ling Phon* 1998;12: 221 - 236.
- Hall JG, Froster-Iskenius UG, Allanson JE. *Handbook of Normal Physical Measurements*. Oxford University Press, pp. 504, 1989.
- Institute of Medicine (U.S.). *Fetal Alcohol Syndrome: Diagnosis, Epidemiology, Prevention, and Treatment*. Washington D.C.: National Academy Press, 1996.
- Jones KL, Smith DW, Ulleland CH, Streissguth A. Pattern of malformation in offspring of chronic alcohol mothers. *Lancet* 1973;1:1267-1271.
- Mackenzie A, Funderburk FR, Allen RP, Stefan RL. Locating and interviewing alcoholics 8 years after discharge from hospital. *The International Journal of the Addictions* 1988;23(4):379-386.
- Quinby R, Rabkin J, et. al., Home and school intervention program for children with FAS/E. (Submitted, 1997).
- Ribisl KM, Walton MA, Mowbray CT, Douglas AL, Williams II SD, Bootsmiller BJ. Minimizing participant attrition in panel studies through the use of effective retention and tracking strategies: Review and recommendations. *Evaluation and Program Planning* 1996;19:1-25.
- Rosett HL. A clinical perspective of the fetal alcohol syndrome. *Alcoholism: Clinical and Experimental Research* 1980;4:119-122.

Ross Laboratories. Birth to 36 Months Physical growth NCHS Percentiles, Boys and Girls, 1992. Ross Products Division, Abbott Laboratories, Columbus Ohio, 43216.

Ross Laboratories. 2 to 18 Years Physical growth NCHS Percentiles, Boys and Girls, 1994. Ross Products Division, Abbott Laboratories, Columbus Ohio, 43216.

Sokol RJ, Clarren SK. Guidelines for use of terminology describing the impact of prenatal alcohol on the offspring. *Alcoholism: Clinical and Experimental Research* 1989;13(4):597-598.

Streissguth A, Barr H, Kogan J, Bookstein F. Understanding the occurrence of secondary disabilities in clients with fetal alcohol syndrome (FAS) and fetal alcohol effects (FAE). Final Report, CDC Grant No. R04/CCR008515, August, 1996.

Streissguth A and Kanter J (Eds.) *The Challenge of Fetal Alcohol Syndrome: Overcoming Secondary Disabilities*. Seattle: University of Washington Press 1997.

X. Appendix

A. New Patient Information Form used in the Washington State FAS DPN Clinics
FAS Diagnostic Evaluation Form used in the Washington State FAS DPN Clinics
(Astley & Clarren, 1997)

B. Maternal Interview

Maternal Interview administered to the 80 birth mothers of children diagnosed with FAS who participated in the study.

Appendix A

New Patient Information Form used in the Washington State FAS DPN Clinics.
FAS Diagnostic Evaluation Form used in the Washington State FAS DPN Clinics.
(Astley & Clarren, 1997)

Appendix B.

Maternal Interview administered to the 80 birth mothers of children diagnosed with FAS who participated in the study.