Preliminary Evaluation Report
Sobriety Treatment and Recovery Teams (START)

In March 1997 the Cuyahoga County Division of Children and Family Services (CCDCFS) implemented a blended child welfare/substance abuse treatment program called Sobriety Treatment and Recovery Teams (START). CCDCFS staff was involved in designing and planning the START program for two years prior to this. An essential part of this planning process was the formation of a self-evaluation team which shared responsibility for designing and implementing an evaluation strategy with technical assistant staff from the University of North Carolina in Chapel Hill and HomeSafe, Inc. in Seattle, Washington. This report presents the first results from the START evaluation. (For a detailed description of START program components and implementation experiences, see START Sobriety Treatment and Recovery Teams, submitted to the Annie E. Casey Foundation in April 1999.)

A. Evaluation Design

The START evaluation uses multiple sources of data to examine the impact of START on three evaluation domains: cross-system program management, START program implementation and operations, and child welfare and substance abuse treatment outcomes. Existing child welfare program data are used whenever possible to track outcomes, such as progress towards permanency. In addition, the evaluation team developed new program monitoring forms that track the implementation of START, including client referrals, progress through treatment and program interactions between the START team and chemically dependent clients throughout the life of the project.

Measuring the Nature of the Intervention. The first phase of the evaluation documents the implementation of START. There are two START units. Each unit consists of a supervisor, five social workers, and five advocates. The program accepts positive toxicology babies referred to CCDCFS through the Hotline and seeks to incorporate the following structural features to achieve its aims:

- Hiring a person who is in recovery to work with a child welfare social worker
- Intense personal contact between the social worker and advocate (called the START team) and a chemically dependent (CD) client
- Contact between the START team and the treatment provider
- Interaction between the START team, the treatment providers, and the client
- Cross system coordination of treatment plan and the provision of ancillary support services
- Intense training for all members of the START team

The intent of this phase of the evaluation is to determine whether CCDCFS implemented START with these planned features and, if not, to document changes in the program design necessitated by the demands of day-to-day child welfare program administration.

Examining Outcomes. Phase two of the evaluation assesses the effectiveness of the START program by comparing outcomes for clients who are served by START to those of other child welfare clients with similar characteristics and needs who were served in the traditional family services units. Hotline referrals for positive toxicology infants received between February 1, 1996 and February 28, 1997 and for whom CCDCFS opened a case were members of the comparison group. Exhibit 1 summarizes the goals of the START program and selected outcome measures tracked by the evaluation.

Exhibit 1. Goals and Outcome Measures

Reduce the risk for children when a chemically dependent mother is present in the home

- Increase the percentage of CD mothers with whom CCDCFS still has contact at 6 months, 1 year
- Reduce the number of subsequent substantiated abuse and neglect referrals

Reduce the time to permanency for children who must be removed from their families and placed in out-of-home care

- Decrease length of time to achieve permanency
- Reduce number of subsequent removals
- Decrease reentry rate to out-of-home placement within 1 year of discharge from START

Increase the percentage of CD mothers who enter and complete substance abuse treatment

- Increase percentage of CD mothers who enter treatment
- Increase percentage of CD mothers who move from pre-treatment to treatment
- Increase percentage of CD mothers who are still in treatment at 2 months, 6 months
- Increase percentage of CD mothers who complete the required treatment program

The evaluation originally planned to also examine the prevalence of risk and protective factors in the living environment for START infants and to determine whether START increased protective factors and decreased risk factors. To date we have been unable to complete this portion of the evaluation.

Source of Data. Program operations data from several sources supported the evaluation. These included (1) existing log data routinely collected by START supervisors, (2) focus groups conducted by TA staff with START staff and with treatment staff from collaborating programs, (3) interviews with START and CCDCFS administrators, (4) interviews with administrators from collaborating programs, and (5) START data collection forms completed by START staff using the newly developed START Information System.

A series of focus groups were conducted during June of 1998 to assess the implementation of the START program. Focus groups were held with the following populations: START social workers, START advocates, drug treatment counselors, including one group from the service provider (Recovery Resources) most often used by

the agency and one group from other providers, administrators of drug treatment agencies, and Family Services (FAS) social workers, not involved in the START program.

Groups lasted approximately 90 minutes, and were documented using audiotape and handwritten notes for later review. Topic guides used a core set of questions that were adapted as needed for different groups. Beyond the limitations typically associated with focus group data, it should be noted that both groups of social workers were small (six and four participants), suggesting the need for particular caution in interpreting their comments.

Certain potential limitations of focus group data should be borne in mind when reviewing the data. Like any data collection method, focus group can produce biased findings if there is a bias of any sort in the group selection process, or if there is a systematic disparity in the type of person who agrees to participate.

Our outcome analyses of child welfare outcomes, such as length of time to permanency and re-entry into custody, use entry cohort data from CCDCFS administrative data files. We compare the outcomes of START infants who are entering custody for the first time to those of two other groups of infants, the comparison group infants who entered custody and all other infants who entered custody for the first time between March 1, 1997 and September 30, 1998.

Since CCDCFS did not routinely collect information on a client's progress through treatment, the evaluation team developed data collection protocols specifically for the use of recording a START client's participation in treatment. The CCDCFS Management Information System staff then developed a personal computer based application for inputting this information into the system. START social workers and family advocates are responsible for the timely recording of these data.

Unfortunately, detailed data on progress through treatment are not available for the mothers of the comparison group infants. To obtain information on whether the comparison group mothers attended and completed treatment, it was necessary to both review the case records for the group and to contact the social workers who were responsible for the cases. Since this data collection activity was conducted early in the evaluation, many of these cases were still open and it was possible to collect some information on whether these clients attended treatment. These data are used to the extent possible to compare treatment experiences of the two groups. We also use information routinely reported by the Alcohol and Drug Addiction Services board of Cuyahoga County to compare the experiences of START clients to those of all women who use treatment services in the county.

B. Nature of the Intervention

One of the central premises of START is the need to provide immediate and intense services to women who have delivered infants with a positive toxicology. The

services needed by these mothers encompass those provided by child welfare staff to insure the safety of the infant and other siblings in the home, treatment services provided by substance abuse treatment agencies, and other ancillary services such as housing, medical services, mental health treatment, and support in parenting. START staff realized the necessity of teaming with other agencies in the county to provide the array of services needed by these clients.

Partnerships with Treatment Agencies. During the planning process, START staff worked to establish partnerships with many of the treatment agencies in the county. Numerous meetings over an extended period of time led to agreements between START and treatment agencies over the basic tenets and philosophy of START. The tenets charged the agencies with working cooperatively and on an ongoing and regular basis. They recognized the importance of sharing the responsibility for providing services to these chemically dependent parents. They acknowledged areas in which differing agency philosophies might arise and committed the agencies to modifying agency policies and procedures when needed to resolve these differences. Although these initial discussions were held at the administrative level (i.e. between START supervisory staff and treatment agency administrators), it was critical for all persons in these partnered agencies to endorse the tenets if they were to become the basis for these collaborative efforts.

Focus group discussions conducted separately with groups of START social workers, advocates, and treatment staff explored how widespread knowledge of the tenets were. The amount of time spent and specific tenets discussed varied among groups. While many were unfamiliar with the tenets, participants were generally in agreement with them. Three tenets were discussed in some detail.

- **Adaptation of agency policy to support treatment.** Although it appeared to be assumed that most of the adaptation would be on the part of drug treatment agencies, examples were provided of policy modifications by both CCDCFS (more serious response to marijuana use, enhanced support for START clients) and drug treatment agencies (notification of caseworker after dirty urine, more flexible admissions criteria).

- **Ensuring children's access to parents in treatment.** This tenet appeared to be taken for granted, although some treatment counselors acknowledged that it created potential distractions in the treatment process. Numerous program adaptations designed to support family contact were described, presenting a sharp contrast to treatment resources in other cities. Administrators described changes toward more family-friendly programs as an outgrowth of involvement with the development of the START team.

- **Response to relapse.** There was considerable discussion among all DCFS participants around definitions of "relapse" and "slips", and whether acknowledging the likelihood of these events signified an overly accepting attitude toward them. START team members agreed that counselors were becoming more reliable in communicating with them when relapses occurred.

Counselors believe that DCFS has become more flexible in its response to relapses as a result of recent enhanced training. Although all agreed that response to relapse should be made on a case-by-case basis, family advocates and drug counselors presented a more complex description of the possible significance of relapses to the treatment process and factors that should be considered in responding to it.

These discussions suggest that, although the tenets were probably not presented to staff in a structured way for their approval, the tenets embody ideals that are supported by staff in all agencies. This support is most likely attributable to the leadership in these agencies and the efforts that they exerted to include their staff in the early planning efforts for START. Additionally, cross training of agency staff, a critical piece of the START implementation process, probably contributed to a better understanding by child welfare staff of the constraints experienced by treatment agencies and vice versa.

An indicator of collaboration between the treatment staff and START social workers and family advocates was documented in the START information system. START staff recorded the date, reason for contact, and nature of communication between themselves and treatment staff. Between July 1, 1997 and October 30, 1998, there were 1,561 contacts between START staff and their treatment counterparts. (Although START began taking clients in March 1997, the workers and advocates did not begin recording all contacts until July 1997.) Although an indicator of treatment contact per client could be calculated, the interpretation of such an indicator would be difficult because the amount of appropriate contact between treatment and child welfare staff per case is, and should be, extremely sensitive to the needs of an individual client. An average contact rate of 2.4 treatment contacts per week per START team provides a gross indicator of the **amount** of collaboration. Approximately 71 percent of these contacts were telephone discussions and 22 percent were office visits. The primary reason for the contacts was to discuss treatment issues (81 percent of all calls). Routine follow-up and scheduling appointments accounted for 13 percent of the calls. Only 2 percent of the calls (33 calls) were classified as "crisis" calls. It is unrealistic to assume that this low number of "crisis" calls indicates that the START clients did not experience treatment crises such as relapses, failure to show up at treatment, or failure to comply with treatment regimens. Instead it seems more likely that the category of "treatment" issues probably subsumes many crisis calls and, thus, we are unable to distinguish the two purposes using these data.

Focus group discussions provide further insight into the nature of the collaboration between treatment and child welfare staff. Counselors and administrators viewed their interaction with CCDCFS as greatly improved when dealing with START team cases, although it was not clear whether they were referring to START social workers or advocates. They cited the benefit of recent training on chemical dependency as particularly beneficial, along with the advocates' experiential knowledge. In addition, START team members are much more accessible to the treatment program, and as a result of greater contact, better known as individuals. They acknowledge that treatment providers and child welfare workers may have different perspectives on case management, as in the optimal timing for returning children to a woman in treatment. However, they expressed respect for the authority of the child welfare worker with regard to child welfare events, and confidence that communication around these events was improving.

Social workers from both START and other FAS units were generally favorable in describing their interactions with local drug treatment providers. They seemed confident that assessment and treatment services would be available when and in the format required by individual clients. Some problems were noted around the issue of getting urine screens performed on clients, where workers described the need for multiple requests and problems with test quality, as well as some difficulties in accessing counselors on a timely basis.

Social Worker/Advocate Teaming. The START program was built upon the key concept of a non-traditional teaming between a child welfare social worker and a person in recovery who also has had prior personal experience with the child welfare system. The identification and training of the advocates early in the implementation phase was critical to the success of START. The hiring process for the advocates was time consuming and in some ways arduous. Although there were a substantial number of applicants for each position, a large proportion of the applicants were immediately identified as not appropriate, often because of previous criminal involvement associated with drug use. The START administrators reported that they interviewed as many as 35 to 40 applicants in order to fill four advocate positions. The entire hiring process from posting the position through hiring and training could take as long as four to five months. Given these constraints CCDCFS has begun to examine ways to build-up a pool of potential applicants for these position in an effort to reduce the amount of time for this process. One consequence of this lengthy process was that several of the START social workers worked START cases alone when advocates were not available.

Focus group discussions on the role of the advocate, the formation of the social worker/advocate team, and the allocation of responsibilities between team members indicates that this was one of the most difficult parts of START to successfully implement. It is important to remember, however, that these discussions occurred relatively early in the life of the START program, June 1998, and immediately following some staff changes. Additionally only a small number of START social workers were available to participate in these discussions. The opinions voiced in these discussions may reflect some of the early problems that the social worker/advocate teams

encountered. Subsequent informal discussions with START staff suggest that some of the initial concerns about this non-traditional staffing have been resolved.

In the focus group discussions, START workers described their jobs as more demanding than those of other FAS workers, possibly due to greater expectations placed on them for personal contact with the client compared to other FAS workers. While they have lower caseloads and the support of the advocates, they reported feeling that the expectation of weekly client contact is excessive. Most delegate this to family advocates, and focus their attention on clients at risk of crisis. Treatment counselors noted that one result of this delegation is that START workers are most often involved when the interaction is punitive in nature. Other FAS workers see the START team role as a relatively easy one, and believe that morale is higher in the START unit than in the rest of the agency. This dichotomy of opinions suggest that the agency still needs to do some education about the nature of the START program among other child welfare staff.

While acknowledging many difficulties, advocates in focus groups were extraordinarily enthusiastic about their jobs, describing them as opportunities to use difficult experiences in their own lives for the benefit of others. They identified many ways in which their understanding of drug-affected clients' motivations and behaviors allowed them to both provide support and set limits for them, as needed. While both clients and social workers sometimes challenge their professional status, they felt able to negotiate delicate boundary issues, such as meeting clients at 12-step meetings they attended, saying "as an advocate, I am not a friend, but I do understand where you're coming from."

Treatment counselors were unanimously favorable in their assessment of the advocate role, describing them as positive role models for clients, better able to relate to clients in non-authoritarian roles, and more effective in confronting denial than social workers. Some problems were acknowledged, such as difficulties in maintaining professional boundaries and the need for greater clinical training, although these were described as occurring more frequently in the past, perhaps an indicator of early personnel problems with selected advocates.

Although START social workers who participated in these focus groups acknowledged the advocate's effectiveness in client support and maintaining contact with drug treatment agencies, overall they were far less enthusiatic about the advocate role than others were. Some expressed skepticism regarding family advocates' skill levels, professionalism and ability to work independently. Some workers objected to the idea that advocates were being accorded professional status and were considered equal partners rather than assistants. This final issue may have been exacerbated by the original start-up staffing patterns of START. START social workers were identified several weeks before the advocates were hired. After completing training the workers began to take clients *before* the worker/advocate teams were formed, perhaps engendering in some workers a feeling of ownership for cases that was difficult to overcome once the advocates came on board.

Difficulties associated with the partnerships between START workers and family advocates generated much discussion within these groups. Although individual perspectives varied, START workers generally described these interactions in more negative terms than did advocates. It should be noted that START workers generally had longer experience in the unit, and may have been describing experiences with earlier cohorts of advocates as well as with their current partners. It is interesting to note that these difficulties were not apparent to drug treatment administrators and counselors, who commented on the effective teamwork by workers and advocates.

Data on the contacts made by START workers and advocates with varying individuals involved with each case indicate that overwhelmingly advocates and workers worked independently. Over 90 percent of recorded contacts in the first 20 months of the program were made singly by either the worker or the advocate. It appears to be a rare occurrence that both advocate and worker is involved in the same interaction. It is certainly not surprising given the intensive amount of contact that is required for each case that START workers and advocates would choose to maximize their work time by working separately. However, it leaves open to interpretation the exact definition of the "team concept" that is critical to START. The focus groups explored this issue with both the workers and the advocates.

In focus group discussions START workers reported varying expectations about what level of tasks advocates should be expected to take on, and the level of autonomy at which they should work. While some described advocates as being too dependent, others were critical of partners seen as attempting to usurp social workers' roles. They also noted that advocates expected more interpersonal interaction and support than social workers were ready to offer. Group members did not believe they should be expected to supervise advocates, provide on-the-job skill building or spend time resolving differences within partnerships, saying that these were part of the supervisor's job. The START supervisors indicated that they did in fact spend a substantial amount of time negotiating these partnership issues during the early phases of START.

Advocates were generally more optimistic in their assessment of the partnership, viewing the team building process as a developmental one. While acknowledging difficulties, they described themselves as confident that these could be resolved with time and patience. They acknowledged the support received from supervisors in this process, as well as the importance of peer support among advocates.

Subsequent informal discussions with a combined group of START workers and advocates indicate that many of these issues have been partially resolved. It is important to note, however, that the successful teaming of social workers and advocates is dependent on many elements, one of, which is the availability of time for the individuals in these teams to work out their relationships. Attention to the details of the teaming relationship is critical to the success of the partnership. After the first 20 months of implementation, it appears that for the most part the START worker/advocate teams have evolved to become an effective tool for providing services to CD mothers and their families.

Future analyses of these data may provide additional insight into the roles and relationships of the START worker and advocates. In particular, it would be important to know whether the teams begin each case by making contact with the mother together and then move on to independent contact with other parties. Our discussions with the START workers and advocates suggest that each team works out their own teaming arrangement but future analyses of these data may provide additional insight into how the teaming relationships evolve.

Partnerships with other Human Services Agencies. One of the stated program objectives of START is to provide ancillary services needed by START families. START staff intended to form partnership with other agencies to facilitate the provision of additional services to the START mothers. For example, these services may include medical care, mental health services, and housing. However, there is no indication in the data to suggest that START staff have made consistent, significant progress in building partnerships with these other service agencies. In fact the contact data record only 797 contacts with other service agencies in a 16month period of time, an average of slightly less than 5 contacts per month per START team. It is difficult to believe that this population of clients does not require a more intensive level of services. START staff acknowledge that this element of the START program has not been fully implemented and they are continuing to work on building the enhanced relationship with other agencies that provide services needed by START mothers. It is possible that START workers and advocates simply did not record these collateral service contacts since these agencies were not formal START partners. Since this is an essential component of the START program, future evaluation work should focus on determining whether the multiple needs of START clients are being met.

Intensive Training for Members of the START Team. One of the first program elements developed by CCDCFS staff and technical assistants was a training program for potential START staff. The training encompassed a wide variety of subjects that were intended to prepare START staff for working with a CD population. The training program is described in detail in START Sobriety Treatment and Recovery Teams (April 1999). The START evaluation did not attempt to assess the effectiveness of the training component per se, but rather to appraise the participation in training by START staff. It appears from discussions with START supervisors and administrators that the START staff have completed most of the training components. During the early implementation of START the advocate training was somewhat problematic because the social workers were ready to begin taking cases and the advocates had still not completed training. The agency elected to have the social workers work the cases alone while the advocates attended the requisite training. However, there were some components of the training that the original advocate group did not complete as planned but rather at a later date. The second group of advocates (several months into the program CCDCFS hired four advocates to replace advocates who were no longer with the program), however, completed the training prior to beginning to work cases.

Intensive, Immediate Contact with Client. The START Information System records the contacts that START workers and advocates have with the mother, child, and others who are involved in the case. Since these data are incomplete for contacts made prior to July 1997, these analyses use the subset of mothers who were referred to START after June 30, 1997 in many of these analyses. The START guidelines establish several time frames for making initial contact with the mother of a positive toxicology infant. Several of the time frames require collaboration with other divisions within the child welfare agency including the Hotline that receives the referral and Intake, which is responsible for investigating the referral.

Exhibit 2. Timing of First Contacts with Mother

	Percentage of Clients		
	Hotline Referral & Call to START	Call to START & First Treatment Contact	Call to START & First Contact with Mom*
Same day	38%	3%	16%
Next day	23%	7%	23%
Within 2 days	7%	11%	12%
Within 3 days	8%	7%	5%
Within 7 days	6%	25%	7%
Within 30 days	2%	28%	17%
Longer than 30 days	0%	2%	7%
Missing data	10%	9%	39%
No treatment	NA	8%	NA

*For 104 mothers referred to START after June 30, 1997

Exhibit 2 summarizes the timing of the first contact between the START team and the mother and between the mother and a treatment agency. It also presents information on the amount of time that passed between the receipt of the referral by the Hotline and its notification to START. Since an immediate first contact with the mother is dependent upon a quick notification of the START unit, the response time of Hotline staff is critical to START workers and advocates in being able to meet their time guidelines. START was notified either the same day or the next day for slightly over 60 percent of its cases. Hotline staff called the START unit within 3 days for an additional 15 percent of clients. Since clients who are referred to the Hotline on weekends are not officially referred to START until Monday morning, it is reasonable to believe that some of the referrals that required more than 2 days for START notification to occur were weekend calls to the Hotline. However, there still remains a small percentage of cases for which START did not receive a timely notification from the Hotline.

Once the mother is referred to START, the worker and the advocate quickly make their first contact with the mother. Thirty nine percent of the mothers referred to START

after June 30, 1997 were contacted either the same day that START received the call or the next day; an additional 17 percent (making a total of 56 percent) were contacted within the three days of the call to START. It is important to note, however, that these figures are based upon contact information provided by START team members. These data are available only for clients who were referred to START after June 30, 1997 and even for this group of clients there is missing information on this particular event for close to 40 percent of the clients. We must interpret these data cautiously given this level of missing data.

One of the START timeframes is for a drug assessment of the client to occur within 48 to 72 hours of the call to START. It is apparent from Exhibit 2 that the first treatment contact, which may be a drug assessment, pretreatment, or treatment, occurs within 72 hours for only 28 percent of the START clients. An additional 25 percent of women have contact with a treatment agency within the first week and 28 percent within the first 30 days. Although these numbers suggest that it takes a longer amount of time to facilitate the beginning of treatment for this population, it is impressive that over 80 percent of the START clients had some type of contact with treatment staff within 30 days of the birth of their children.

Exhibit 3. Contacts with Mother

Referral to START	Number of Mothers	Average Contacts per Week	Range Total Contacts
Before July 1, 1997		0.55	0 - 158
July 1, 1997 - Feb. 28, 1998		0.7	4 -118
After Feb. 28, 1998		0.81	0 -73
Total	156	0.68	0 - 158

*Missing data on contacts on 23 clients

Another basic premise of START is that ongoing frequent contact with CD mothers will provide some of the support that these mothers need to get off drugs. START guidelines specify that there should be weekly contact with the mother. Exhibit 3 summarizes the combined contacts between the START workers and advocates and their clients. To present this information we have divided START clients into groups depending on whether they are among the first START referrals or more recent referrals. Since START began with only social workers working with the clients (while waiting for the advocates to complete training), it was expected that some of the START guidelines might be unattainable in the early phases of implementation. Additionally, the format for recording the contacts was not finalized until July 1997 so workers and advocates did not begin contemporaneously recording contact information until then. Although some workers and advocates did retrospectively record their contacts with the mother, it was expected that these contact data for this earlier period would be incomplete. One other

important aspect to these data should be noted, START team members recorded only their *successful* contacts (i.e. contact was actually made with the individual). Discussions with social workers during the evaluation planning phases indicated that child welfare staff often makes multiple unsuccessful contact attempts before they successfully reach a client or family member. To request that START staff records both successful and unsuccessful contacts would have been extremely burdensome for them. Thus, these contact data should not be interpreted as an indicator of the amount of work or effort expended by START team members but rather an indicator of successful interaction with their clients.

Although START teams do not appear to be meeting the specification that they maintain weekly contact with their clients, Exhibit 3 suggests that they are in frequent contact. For clients who were referred to START between February 28, 1998 and October 30, 1998 the average number of contacts per week is .81 indicating that a

Exhibit 4. Contacts with Family Members and Other Interested Persons

Referral to START	Average Contacts per Month with family/others	Average Contacts per Month with Child
Before July 1, 1997	0.78	0.67
July 1, 1997 - Feb. 28, 1998	0.95	1.10
After Feb. 28, 1998	1.50	1.10
Total	1.00	0.93

*Missing data on contacts on 23 clients

START team member is in contact with the mother more than 3 out of every 4 weeks approaching the goal of one contact per week. For clients referred between July 1, 1997 and February 28, 1998 the average number of weekly contacts is slightly less, .70 contacts per week. Home visits account for 39 percent of all contacts; office visits, other face to face contacts, and transportation were 27 percent of the contacts; 30 percent of the contacts were telephone conversations with the mother.

Since support for the CD mother involves more than just contact with the mother, additional insight into the management of the case is provided by examining contacts that the workers and advocates had with other persons involved with the mother. Using the same groups of mothers, Exhibit 4 summarizes the rate of contact with the child and with other family members and friends. For mothers referred to START during the first year of the program, family members and others were contacted slightly less than one time per month; for those entering the program later this rate was slightly higher at an average of 1.5 contacts per month.

Since insuring the safety of the child is one of START's highest priorities, the number of contacts with the child is a particularly important indicator. For cases in the

early days of START the average rate of contact with the child was 1.1 contacts per month; for more recent intakes this rate was also about 1 contact per month. However, since this number includes both children who are in custody and those who remained in their own homes, it is important to examine this indicator by the custody status of the child. For cases that were referred to START during its first year of implementation, START team members had slightly more frequent contact with children in custody than with those who remained in their own home (an average of 1.2 visits per month vs. 1.0 visit per month respectively). However, this finding is reversed when we examine the rate of contact with children of more recent START referrals. For this group START team members contacted children in custody an average of .67 times per month compared to 1.5 contacts per month for children who remained in their own homes.

C. Effectiveness of START

The START evaluation team elected to focus its examination of the effectiveness of START on these areas:

- Increase the likelihood that a CD mother will enter and complete substance abuse treatment
- Reduce the risk for children when a CD mother is present
- Reduce the time to permanency for children who must be removed from their families and placed in out-of-home care

The team identified several indicators of success for each of these areas. We present information on these indicators for both START and comparison group mothers and children in the sections below. The analyses of these outcomes are supported by two types of data: (1) administrative data configured as entry cohort files that contain information on all children who entered out-of-home care in 1997, 1998, and early 1999; (2) information recorded in case files about the treatment status of these CD mothers. The entry cohort data files provide information on the referral history and custody experiences of children from both the START and comparison groups. These data are complete and similar for all children. The *case file* information for the START clients provides a treatment history for START clients that records the beginning and ending dates of each treatment program to which a client is referred. Either a worker or an advocate inputs it into the START information system. Unfortunately, the *case file* information for the comparison group, which was retrospectively abstracted from case records by CCDCFS staff, is not as complete. Since information on the treatment history of the comparison group is limited, we present comparative data on only one indicator of treatment, whether a CD client actually went to treatment or not. However, additional information on the treatment experiences of the START clients is presented and compared to other published data on similar groups.

Characteristics of START and Comparison Group Mothers. There were 179 CD mothers served by START in the first 20 months of the program. In the comparison group there were 186 mothers referred to the Hotline for delivering a positive toxicology infant in the year prior to START implementation. The mothers in these two groups are

astonishingly similar, as seen in Exhibit 5. About 75 percent of the mothers in each group were African American; 8 percent of START mothers and 9 percent of comparison group mothers were younger than 21 when reported to child welfare; and, almost one quarter of these mothers were active as child welfare cases as a child. The one area in which the mothers do appear to vary a little is in their drug of choice. Seventy four percent of the comparison group moms compared to 64 percent of the START moms used crack/cocaine either alone or in combination with another drug. START mothers were twice as likely to be using marijuana either alone or with another substance (not including cocaine) than the comparison group mothers were.

Perhaps one explanation for these differences in drug usage is the timing of the report on the drug of choice. For START moms, these analyses are based upon the report at the time of the referral (i.e. at the time of birth). For the comparison group mothers, this information was abstracted for all of the records in the case record so that the information could span several reports of drug usage. Since marijuana remains in the system for a longer period of time than crack, it is not surprising that a drug test at birth would show positive for marijuana. During the initial phases of implementation, START staff examined some of the "marijuana only" cases to determine if they were in fact appropriate referrals for START. Upon closer examination of these cases they found that many of these mothers were in fact using multiple substance that the original toxicology screens did not detect.

Exhibit 5. Characteristics of START Mothers and Comparison Group Mothers

	START (n = 179)	Comparison Group (n=186)
Race		
African American	78%	75%
Caucasian	17%	23%
Other	2%	1%
Age at Referral		
Less than 18	1%	3%
18 - 20	6%	7%
21 - 29	51%	44%
30 - 39	37%	43%
Over 40	5%	4%
Substance of Choice		
Crack/cocaine only	57%	62%
Crack/cocaine/other	7%	13%
Marijuana only	23%	10%
Marijuana/other	1%	2%
Other	6%	4%
Unknown	6%	9%
Case active as a child	23%	24%

Participation in Substance Abuse Treatment. One of the goals of START is to increase the probability that a CD mother will have a drug assessment and then continue in treatment as needed. Exhibit 6 summarizes the movement through assessment, pretreatment, treatment, and aftercare for START clients. To account for missing data and to allow the reader the information needed to assess the impact of the missing data on the outcomes we present these data in two ways. First, we give the percentage of all START clients who attended each phase of treatment. In these analyses we include the missing data as a category allowing the reader to assess the impact of these data on the outcome of interest. Second, we calculate the percentage of clients with non-missing data in each group.

Exhibit 6. Contacts with Treatment Agency by START Clients
(Clients referred 2/20/97 - 10/30/98)

	Number of Clients	Percentage All Clients	Percentage of Clients w/Tx info.
Total START Clients	180		
Total Clients w/info. on Treatment	155	86%	100%
Assessment	119	66%	77%
No Assessment	36	20%	23%
No information	25	14%	NA
Pretreatment	66	37%	43%
No Pretreatment	89	49%	57%
No information	25	14%	NA
Treatment	137	76%	88%
No Treatment	18	10%	12%
No information	25	14%	NA
Aftercare	45	25%	29%
No aftercare	110	61%	71%
No information	25	14%	NA

Looking first at the percentage of all START clients in each treatment phase, it is evident that, even with this most conservative estimate of treatment participation, START was extremely successful in getting clients into treatment. Sixty six percent of all clients had a drug assessment; 37 percent went to pre-treatment, and 76 percent at least began a treatment program. These percentages are even higher if we examine only those mothers with complete treatment data. Ranging from 43 percent attending pre-treatment, to 77 percent with a completed assessment, to 86 percent at least starting a treatment program.

We can compare the percentage of START mothers who began some type of substance abuse treatment (i.e. outpatient, inpatient, intensive day treatment) to the percentage of comparison group mothers who began any type of treatment as shown in Exhibit 7. START mothers were significantly more likely to begin treatment ($p < .01$) than the group of comparison moms. The difference between these two groups in reality is probably even greater because the "began treatment" category for the comparison group moms is likely to include clients who only had a drug assessment.

Exhibit 7 Treatment Experiences of START mothers and Comparison Group Mothers

	START	Comparison Group
Began treatment	88%	53%
No treatment	12%	47%

*p < .01

Since the drug use pattern was significantly different between the two groups of mothers, we also examined the probability of beginning treatment using multivariate logistic regression. This analytic technique controls for the differences in characteristics of the two groups and then calculates the probability that a START mother would enter treatment if all other characteristics were equal to those of the comparison group mom. These analyses, summarized in Exhibit 8, confirm the bivariate analyses of Exhibit 7. START clients were significantly more likely to begin treatment than are comparison group women. There is no significant difference in the probability of beginning treatment based upon age, race, or whether the mother was an active case as a child. Almost reaching statistical significance ($p = 0.11$), mothers who use crack/cocaine appear to be more likely to enter treatment than other mothers are. The comparison group mothers were significantly less likely to begin any type of treatment than were the START moms.

Exhibit 8. Probability of Beginning Treatment
by START and Comparison Group Status

Characteristics	Estimate	Significance
Case active as a child	0.47	0.22
Age:		
Less than 18	0.88	0.44
18 - 20	0.81	0.36
21 - 29	1.09	0.13
30 - 39		
Race:		
African American	-0.04	0.91
Use of crack/cocaine		
Comparison group mom	-1.69	0.00

Although beginning treatment is a critical step in the treatment process, it is clearly important to determine whether women who began treatment continued with the treatment. Exhibit 9 summarizes the experiences of the 155 START clients for whom this information is available.

Exhibit 9. Treatment Activity through November, 1998*

	START Mothers	
Completed first program, no other treatment	33	21%
Completed first program, referred to another Tx program	32	21%
Discharged from first Tx program, no other treatment	8	5%
Discharged from first Tx program, referred to another Tx program	10	6%
Did not complete the first Tx program, no other Tx program*	20	13%
Did not complete the first Tx program, referred to another program	30	19%
No Show for first Tx program, no other Tx program	3	2%
No Show for first Tx program, referred to another program	4	3%
No Treatment at all	15	10%
Total	155	100%

* For clients with information on first treament episode.

Exhibit 10. Number of Treatment Episodes by Status of First Treatment Episode

Number of Treatment Episodes	Status of First Treatment Episode								Total	
	Completed		Discharged		Not Completed		No Show			
	Number	%	Number	%	Number	%	Number	%	Number	%
0									15	10%
1	33	51%	8	44%	20	40%	3	43%	64	41%
2	21	32%	6	33%	15	30%	3	43%	45	29%
3 or more	11	17%	4	22%	15	30%	1	14%	31	20%
Total	65	100%	18	100%	50	100%	7	100%	155	100%

Forty two percent of the mothers who began their first treatment program completed the program; an almost equal percentage, 43 percent, did not complete the first program and almost half of these (18 percent) did not go to a second program. There were 15 mothers who had no treatment and another 7 who did not show up for the first program to which they were referred (although over half of these did subsequently go to another program).

Exhibit 10 summarizes the treatment experiences of START clients across all treatment episodes. Almost half of the START clients had two or more treatment episodes. Over half of the women discharged from their first treatment program went on to a second or third program: 60 percent of the clients who did not complete the first program at least started a second or third. This progression through treatment for START clients is not surprising. Sometimes clients began treatment in a less intensive program, such as outpatient, only to find that this program did not meet their needs. Often clients were

unable or unwilling to comply with the requirements of the program and so were discharged by the program or left of their own accord. The consistent ongoing contact of the START teams, the treatment providers, and the START mothers assured that mothers who were less than successful in the first program were, at least, offered the chance to begin a second or third program as needed. One tangential, and perhaps unexpected, benefit of START was enhanced collaboration among the treatment provider agencies. The providers reported that when the START clients in one program needed the services of another treatment agency it was somewhat easier to facilitate this transfer.

Exhibit 11. Days in Outpatient, Inpatient, Intensive Day Treatment

Total days for all inpatient, outpatient, Intensive Day Treatment programs*		Treatment Clients n= 155
0	6	4%
1-30	17	11%
31-90	30	19%
91-180	38	25%
181-365	13	8%
More than 365	2	1%
Still in care or left treatment but ending date missing	34	22%
No treatment**	15	10%
No treatment information	25	NA
Total	180	

*Sum of the number of days between the beginning and ending dates for all outpatient inpatient, Intensive Day treatment programs
**Went to assessment or pretreatment or education

Not only did START successfully assist its clients to begin treatment, it also appears that START had an impact on the amount of time that a mother remained in treatment. Exhibit 11 summarizes the total time in three types of treatment programs (i.e. inpatient, outpatient, and intensive day treatment). Over half of the START clients who began treatment experienced over 30 days of treatment; almost one third of these clients were in treatment for over 90 days.

ADD IN INFORMATION FROM OTHER SUMMARY DATA REPORTS

Impact of START on Risk of Subsequent Abuse and Neglect. One of the goals of the START program is to reduce the risk for children with a CD mother present in the home. One of the first decisions that child welfare workers must make regarding abused and neglected children is whether the child can safely remain in their own home. If the family, in conjunction with the agency, cannot implement a safety plan that adequately protects the child then the agency will assume custody of the child who is subsequently

placed in out-of-home care. About half of both the START and comparison group babies (53 percent vs. 46 percent respectively) were placed in out-of-home care.

The issue of safety for the children remaining in their own homes is a critical one. The intent of the evaluation was to measure the decrease in risk factors and the increase in protective factors in the homes of children who remained in their own homes. However, to date we have been unable to accomplish this. As a proxy for subsequent safety, we examine the incidence of abuse and neglect reports after the birth of the positive toxicology child. Exhibit 12 presents the proportion of infants and siblings with any subsequent report for abuse or neglect and for reports within one year of the birth of the positive toxicology infant. Sixteen percent of START infants and 26 percent of comparison group infants had a subsequent CAN referral. Since we had a longer follow-up time for children in the comparison group, thus increasing their probability of a subsequent referral, Exhibit 12 also presents the proportion of children with a subsequent referral within one year. Thirteen percent of the START infants and 10 percent of comparison group infants had another report before their first birthday. START siblings were almost twice as likely to have an abuse or neglect report within one year of the birth of the infant than were comparison group siblings (24 percent compared to 13 percent). Although these results do not support our hypothesis that anticipated fewer referrals for the START children, they do appear to make some sense. Since the START workers are much more visible in the mother's community, it is possible that community members are more willing to report suspected incidents of abuse due to an increased level of trust.

One might expect that these proportions would vary depending on whether the child was in custody or not. However, there was very little difference between children in custody and those in their own homes on this. For START infants, 13 percent of those in custody and 15 percent of those in their own home had a subsequent report; for comparison group infants the proportion with a subsequent referral was 10 percent whether in custody or not.

Exhibit 12 Prevalence of Child Abuse and Neglect Reports
by START and Comparison Infants and Siblings

	Children			
	START		Comparison	
	Infant (n=149)	Siblings (n=257)	Infant (n=175)	Siblings (n=267)
Had CAN report before the birth of the positive toxicology infant	NA		NA	86%
Had a CAN report after the birth of the positive toxicology infant		28%	26%	
Had a CAN report within one year of the birth of the positive toxicology infant	13%	24%	10%	
Positive infant was placed in out of home care	57%			

Previous experience of the family with the child welfare agency before the birth of this positive toxicology infant provides an indicator of the intractability of a family's problems. Using data from the Child Abuse and Neglect Registry (shown in Exhibit 13), we were able to determine for 142 START families and 173 comparison group families whether there had been previous referrals for abuse and neglect and the number of children for whom the agency had received an abuse or neglect report. One third of comparison group families and 40 percent of START families had no history of an abuse or neglect report prior to the birth of this infant. Families with a history of abuse or neglect tended to have referrals on multiple children, with over 40 percent of the families in both groups having had referrals made on three or more children.

Exhibit 13 Prevalence of Child Abuse and Neglect Reports
for START and Comparison Families

	Families	
	START (n= 142)	Comparison (n=173)
Had CAN report before the birth of the positive toxicology infant	60%	
Had a CAN report after the birth of the positive toxicology infant		
Had a CAN report within one year of the birth of the positive toxicology infant		p = .015
Children in home for whom there has been any CAN report		
1	33%	27%
2	24%	24%
3	15%	14%
4 or more	28%	35%

A larger proportion of START families had a subsequent CAN report than did comparison group families. 29 percent of START families versus 17 percent of the comparison group (Exhibit 13). Further analyses of this result using multivariate techniques are presented in Exhibit 14. This model accounts for several factors that may impact on the probability of having another referral and then estimates the likelihood of there being another abuse or neglect referral. The factors considered in the model include the age of the child at the first referral, the time elapsed since the birth of the positive toxicology infant, whether positive toxicology infant was taken into custody, and START program participation. Controlling for these factors, there is not significant difference in the probability of any subsequent referral for START infants compared to the comparison group babies. However, the siblings from both groups are much more likely to have a subsequent referral compared to the START infants.

Exhibit 14 Likelihood of a Subsequent CAN Referral
for START Children

	Odds Ratio	Significance Level
Age at First Referral	1.00	0.27
Positive toxicology infant from the family in custody	1.02	0.96
Program participation		
Comparison infants	0.80	0.64
Comparison siblings	5.65	0.00
START siblings	5.30	0.00
Time since birth of infant	1.74	0.00

*******Need updated entry cohort files before completing this section.*******

C. Conclusions and Future Efforts

It seems clear from the results presented thus far that CCDCFS was successfully able to implement the START program model with few deviations from the original plan. START blended philosophies, treatment guidelines, and program models from the child welfare agency and its multiple substance abuse treatment partners. Both child welfare staff and treatment counselors were called upon to modify some current practices in order to meet the needs of this CD population and to facilitate the partnership between the agencies. Although the implementation of START required a longer time period that originally envisioned, once in operation START teams motivated their clients to begin substance abuse treatment. Over three fourths of all START mothers had some contact with a substance abuse treatment agency ***after*** the drug assessment was completed. This is a significant accomplishment for any agency providing services to this population.

Evidence of START's positive effect on child welfare outcomes is less clear cut at this time. One possible explanation for this ambiguity is that a longer follow-up time is required to measure the selected child welfare outcomes. This report covers activities that occurred within the first 20 months of program operation. START focuses first on the safety of the child and obtaining substance abuse treatment for its mothers, activities that occur by necessity very early in the course of a case, and thus outcomes that can be validly measured more quickly. Many of the child welfare outcomes depend on the success of these early activities and will not be evident until later. The evaluation will continue to update these data and examine these outcomes.

The evaluation of START provides much needed information on whether this blended child welfare/substance abuse treatment approach can be implemented and is effective. However, the evaluation still leaves some questions unanswered. As this agency and others consider the START program model for more widespread use within their agencies, it would be helpful to be able to discern which aspects of START had an effect. This evaluation focused on the entire package of START as an intervention and did not attempt to attribute the impacts of START to its various program components.

However, it is possible that one part of the program model (e.g. the inclusion of recovering persons as part of the child welfare team or the reduced social worker caseloads) is actually responsible for some of START's success. As the agency considers ways to expand START to the rest of the agency, it is incumbent upon them to also consider ways to determine the contributory effects of START's components.

The evaluation was able to address the critical issue of a child's safety only through the examination of proxy measures, such as abuse and neglect reports and the incidence of custody. Whereas the evaluation team identified this as an important aspect for the evaluation to examine, it was not possible given the constraints of CCDCFS staff to implement this during this first phase of the evaluation. Hopefully, as START continues and, perhaps expands within the agency, the evaluation will be able to address the issues of child safety more thoroughly. One possible way for accomplishing this is to use the information collected during the risk assessment process to determine a pre-START and a post-START family assessment of risk for a random sample of START participants. In addition to these data, a valuable addition to the START evaluation would be interviews with a sample of START clients and/or their families to provide direct information on the need for services, use of services, family environment, and satisfaction with START.

Agency-wide CCDCFS began geocoding all cases last year. Social workers throughout the agency are assigned to units that provide services to clients from specific neighborhoods. Contrary to this trend, START units take clients from throughout the county. However, data are becoming available that identify the neighborhood of origin for the START clients. An examination of these data and attention to the interactions of the START team with community members and agencies would provide valuable insight for future expansion of START within the context of the agency's commitment to neighborhood based programs.

Finally, it is important to comment upon the impact of the self-evaluation approach on the implementation of both START and its evaluation. The commitment of the START supervisors and program administrators to the evaluation was impressive. The involvement and contribution of the workers and advocates was essential to the successful implementation of the evaluation. START team members participated in early discussion of the evaluation design and throughout the project worked closely with the technical assistants from the UNC-CH School of Social Work and HomeSafe to identify and collect the information needed for the evaluation. It is now clear that these efforts required more time that originally anticipated, partly because of the complexity of the START program and partly because evaluation activities were often delayed due to the many other demands on the time of the START staff. However, the participation of the START staff in the evaluation planning and implementation provided some "buy-in" from START staff to the evaluation. Ultimately, the evaluation provided more useful and valid information because of this.

The self-evaluation approach is based upon having data that are useful for both program monitoring and evaluation. The START evaluation accomplished this. The data

there were collected for the evaluation are now input on a weekly basis into the newly designed and implemented START information system. START social workers and advocates can directly input the data into the computer completely bypassing the written forms initially used for the evaluation. These data provide the basis for monthly reports to the Chief in charge of START and, in the future, to START supervisors, social workers and advocates.

While there are many benefits to the self-evaluation approach, it is important to note that there are costs to an evaluation grounded in this approach. As noted throughout this report, there were some areas of importance to START that the evaluation did not address. In some cases the design intended to study a topic but simply could not, while in others it was a conscious decision to "save it for future work." In order for self-evaluation to work within the day-to-day context of the child welfare agency, it must be manageable within the resources of the agency. Thus, there was a continual negotiation to determine what was essential for the first part of the evaluation and what we could either live without or save for another day.

Although the evaluation suggests that it is possible to implement START in the day-to-day child welfare environment, it remains to be seen whether this model can move from the demonstration phase to the "way we do business" agency-wide. However, the preliminary evaluation results should provide substantial hope for an agency that reports about 80 percent of the parents that it serves are addicted.