

Hep-C ALERT, Inc.

**Addiction Recovery
Hepatitis Intervention Project**

Project Evaluation Report

August 2004

Revised September 2004



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October 2002 through September 2003

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SECTION 1: PROJECT SUMMARY

Hep-C ALERT, Inc. Organizational Background

Hepatitis C Virus

ARHIP Program Goals and Objectives

Williams, Stern and Associates Evaluation

HEP-C ALERT ORGANIZATIONAL BACKGROUND

Hep-C ALERT, Inc., a nonprofit organization established in 1997, is recognized nationally as an expert resource on hepatitis C and is the only hepatitis service organization serving South Florida. Its mission is to gather research, raise public awareness and concern, and to assist people affected by the hepatitis C virus. ALERT's major accomplishments include being the first - and only - hepatitis service organization in the U.S. to:

- Provide fully integrated HCV education, pretest counseling, informed consent, testing, post-test counseling and referral to the public and employer groups;
- Conduct two institutional review board approved research studies on the prevalence of hepatitis C virus among public safety personnel (Florida and Oregon); and
- Design a proprietary software program specifically enabling hepatitis service organizations to maintain counseling, testing and referral data.

Recently, Hep-C ALERT reduced the scope of its national programs to direct its efforts towards community-level interventions. As a consequence, it has sought funding support from several South Florida resources, particularly from the Health Foundation of South Florida, to provide community services.

Hep-C ALERT developed the Addiction Recovery Hepatitis Intervention Project (ARHIP), a fully integrated prevention and intervention program, to provide hepatitis-specific health education, hepatitis A & B vaccination, hepatitis C testing, linkage to care and long term follow-up services to at-risk adults in residential addiction treatment programs. Strong and effective collaborations between Hep-C ALERT, the residential addiction treatment programs and the Florida Department of Health are vital to ARHIP's success.

HEPATITIS C VIRUS

First identified in 1988, hepatitis C virus (HCV) infection is the most common chronic blood borne infection in the United States and is the leading cause of chronic liver disease, cirrhosis, adult liver transplants and liver cancer. It is estimated that more than 70,000 residents of Miami-Dade and Broward Counties have been infected with the virus.

A national survey (the third National Health and Nutrition Examination Survey [NHANES III]) of the civilian, non-institutionalized U.S. population found that 1.8 percent of Americans (3.9 million) have been infected with HCV, and 2.7 million are chronically infected with HCV. Every year, 8,000 to 10,000 people die from the complications of liver disease caused by hepatitis C.

Most infections are due to illegal injection drug use, and individuals who inject drugs are at highest risk for HCV infection. There is also a high rate of HCV infection among incarcerated persons. There are an estimated 300,000 persons co-infected with HCV/HIV. Between 60 and 90 percent of people who contracted HIV from intravenous drug use also have HCV.

Hepatitis C is frequently called the "Silent Epidemic" because it rarely causes noticeable symptoms, and it can even remain undetected for many years. It is transmitted by direct contact with infected blood, including blood transfusions, shared drug-injecting supplies and high-risk sexual behaviors. The virus is most common in persons between 40 and 59 years old. Infection is estimated at 85 percent among IDUs and about 50 percent in the prison population.

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The number of new HCV infections per year has declined from an average of 240,000 in the 1980s to about 25,000 in 2001. Hepatitis C disproportionately affects people of color: 3.2 percent of African Americans and 2.1 percent of Mexican Americans are infected with HCV, compared to 1.5 percent of non-Hispanic whites. These figures do not include infections in prisoners or the homeless; therefore, they underestimate the actual impact of the virus.

Individuals who inject drugs are at highest risk for HCV infection. HCV infection develops quickly following the initiation of injection drug use and occurs from the sharing of needles, syringes, or other equipment associated with drug use. It is estimated that 60 percent of the 30,000 new cases of HCV that occurred in 2000 occurred among injection drug users (IDUs). Within five years of beginning injection drug use, 60 to 80 percent are infected with HCV compared with about 30 percent infected with HIV.

Before the mid-1980s there was a 7 percent to 10 percent risk of acquiring hepatitis C from blood transfusions. This risk declined by more than 50 percent between 1985 and 1990 as a result of blood donor screening for HIV and surrogate testing. By 1992 the risk of HCV infection from blood transfusions was reduced to one in 100,000. Currently, the risk of HCV infection from transfusions is less than one per million transfused units.

There is also a high rate of HCV infection (15 percent to 40 percent) among incarcerated persons. More than 80 percent of the nation's estimated 1.7 million current IDUs have been incarcerated. Prison population studies in California, Virginia, Connecticut, Maryland, and Texas have found evidence of HCV infection in 29 percent to 42 percent of inmates, and an estimated 15 percent to 30 percent of inmates in the U.S. may be HCV positive.

Intravenous drug use seems to increase the risk of co-infection. There are an estimated 300,000 persons co-infected with HCV/HIV. An estimated 60 percent to 90 percent of people who contracted HIV from intravenous drug use also have HCV. Deaths from chronic hepatitis C among patients with HIV are expected to increase as advances with antiretroviral therapy extend the life span of these patients.

The impact of HCV infection has the potential to dramatically increase over the next 10 to 20 years. There is great need to educate and train groups at increased risk (including those in substance abuse treatment and correctional facilities) as well as health professionals. Awareness of viral hepatitis as an important public health issue is growing, but there is still work to be done and issues to address including prevention, transmission, treatment, capacity and education.

ARHIP PROGRAM GOALS AND OBJECTIVES

In 2001, the Centers for Disease Control and Prevention (CDC) developed The National Hepatitis C Prevention Strategy to address the prevention and control of HCV infection and its consequences. The goal is to lower the incidence of acute HCV infections in the U.S. and reduce the disease burden from chronic hepatitis C. The principal components of this effort are:

- a) Educate health care and public health professionals;
- b) Educate the public and individuals at increased risk of infection;
- c) Clinical and public health activities to identify, counsel, and test persons at risk and to improve medical evaluations and referrals to care;
- d) Outreach and community-based prevention programs;
- e) Surveillance to monitor viral hepatitis trends; and
- f) Research.

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Hep-C ALERT modeled the ARHIP after these recommendations. The intervention includes viral hepatitis health education, hepatitis A & B vaccination, hepatitis C counseling and testing, and linkage to care for HCV+ adults at substance abuse treatment programs.

The ARHIP Program Goals are:

- a) To increase viral hepatitis education, awareness, testing and referral for medical care;
- b) Prevent new viral hepatitis infections; and
- c) Evaluate the effectiveness of an integrated approach to viral hepatitis prevention and intervention among clients in long-term residential addiction recovery programs.

ARHIP seeks to achieve the following objectives within six long-term residential addiction treatment programs, over the course of one year:

- a) Provide 1000 LRT clients viral hepatitis health education, achieve post-workshop test scores >75%.
- b) Provide hepatitis risk assessment and counseling to 95% of LRT clients, 85% get tested for HCV.
- c) Provide 1st & 2nd dose of hepatitis B vaccine to 90% of LRT clients with 50% completing the 3-shot series.
- d) Analyze hepatitis C risk factor and seroprevalence data.
- e) Educate 10 outreach workers, counselors and case managers about viral hepatitis.
- f) Test integrated service delivery model between LRT programs, CBO and Health Department.

WILLIAMS, STERN AND ASSOCIATES EVALUATION

Hep-C ALERT contracted Williams, Stern, and Associates, Inc. to conduct the project evaluation for ARHIP. The scope of services provided by Williams, Stern and Associates included assisting with the data collection instruments, conducting periodic evaluation of ARHIP's progress and producing the Project Evaluation Reports for dissemination to the community.

The sources of data used throughout the project include:

- Workshop attendance logs;
- Pre/post workshop knowledge assessment surveys;
- Appointment logs;
- Viral hepatitis risk assessments;
- Blood test results;
- Vaccination logs;
- Referrals made and completed; and
- Attempted/completed client contacts.

SECTION 2: PROJECT NARRATIVE

Background

Question 1. What are the goals/objectives of the grant project?

Question 2. Provide a summarized description of how the grant project has been implemented.

Question 3. What has been accomplished with the grant resources, and to what extent was each objective met?

Question 4. If applicable, explain why objectives have not been met.

Question 5. If not addressed in the questions above, what unexpected barriers/issues/opportunities were faced that impacted the implementation of the project?

Question 6. What project strategies/components worked remarkably well?

Question 7. What was learned through the implementation of the grant project?

Question 8. What operational issues will be addressed as the project continues?

Question 9. Summarize development/sustainability activities that will/may result in additional funding for the grant project.

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BACKGROUND

The CDC's National Hepatitis C Prevention Strategy recommends targeting participants in addiction recovery programs to receive HCV education, counseling, testing and referral for medical care. Hep-C ALERT conducted a phone survey to identify the availability and scope of viral hepatitis prevention/intervention services offered within Miami-Dade's addiction recovery programs. The results of the survey revealed that while almost all recovery programs offered some form of HIV education, prevention and testing/counseling services, hepatitis-specific education, counseling, testing, care coordination and psychosocial support services were not being provided, and were highly desired.

Because research shows long-term residential addiction treatment programs (LRT) are among the most effective strategies for addiction recovery; this setting was selected for Hep-C ALERT's intervention. In addition, the inclusion of hepatitis vaccination in the intervention required a setting where at-risk clients could be accessed by project staff over a period of time.

A self-funded six-month pilot project was conducted by Hep-C ALERT to better understand the needs and demographics of the target population and to test service delivery methods. Data from the pilot, which clearly demonstrated that prevention/intervention services were vitally needed, was included in the application to Health Foundation of South Florida.

Upon grant approval, Health Foundation asked that Hep-C ALERT address the following in the periodic evaluation of the project:

- Goals/objectives
- Accomplishments
- Unexpected barriers/issues/opportunities
- Lessons learned
- Development/sustainability activities
- Implementation
- Unmet objectives
- Strategies
- Future priorities

QUESTION 1. WHAT ARE THE GOALS/OBJECTIVES OF ARHIP?

ARHIP goals are to increase hepatitis education, awareness, testing and referral for medical care; prevent new hepatitis infections; and evaluate the effectiveness of integrated hepatitis C testing and counseling among clients in long-term residential addiction treatment (LRT) programs. Objectives for the 12-month reporting period are as follows:

- a) Provide 1000 LRT clients viral hepatitis health education, achieve post-workshop test scores >75%.
- b) Provide hepatitis risk assessment and counseling to 95% of LRT clients, 85% get tested for HCV.
- c) Provide 1st & 2nd dose of hepatitis B vaccine to 90% of LRT clients with 50% completing the 3-shot series.
- d) Analyze hepatitis C risk factor and seroprevalence data.
- e) Educate 10 outreach workers, counselors and case managers about viral hepatitis.
- f) Test integrated service delivery model between LRT programs, CBO and Health Department.

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QUESTION 2. PROVIDE A SUMMARIZED DESCRIPTION OF HOW THE GRANT PROJECT HAS BEEN IMPLEMENTED.

ARHIP hepatitis health risk assessment, knowledge assessment, outcomes surveys and risk-factor/seroprevalence database were developed by Hep-C ALERT and reviewed by Miami-Dade County Health Department and Williams, Stern and Associates.

Four LRT sites: Spectrum Broward, Spectrum Miami-Dade, St. Luke's and The Village South were selected and confirmed. Two additional sites, Stepping Stones and House of Hope were added in May 2003 in order to increase the number clients who could be served. Hep-C ALERT administration met with each LRT program director/administrator to create a written site implementation plan and finalize the Qualified Service Organization Provider agreements. ARHIP staff was trained on project procedures and management/security of electronic data in the field. Periodic quality assurance audits have been performed to ensure accuracy.

LRT administration, staff and clients responded positively to ARHIP. Health education (for both LRT clients and staff), counseling, hepatitis C testing, and hepatitis A & B vaccine coordination with the Broward and Miami-Dade County Health Department has been implemented with few problems.

QUESTION 3. WHAT HAS BEEN ACCOMPLISHED WITH THE GRANT RESOURCES, AND TO WHAT EXTENT WAS EACH OBJECTIVE MET?

Overall, Hep-C ALERT successfully implemented ARHIP and met the project's goals. The intervention was implemented at six sites and received high praise from both clients and those who operate the LRT facilities. Surveys of clients and staff show a high degree of satisfaction with Hep-C ALERT. Train-the-trainer workshops have been held for facility staff and hepatitis education workshops for clients. Subjective and objective measures have shown an improved knowledge as a result of attending the workshops. The majority of those who attended believed that their knowledge and understanding of hepatitis was greatly improved as measured by pre- and post-testing, with an average 10 percentage point improvement.

Nearly 900 clients were provided health education, given the opportunity to be tested for hepatitis C, to be vaccinated for hepatitis A and B, to be connected to primary health care if not already in care and develop a personal Hepatitis Action Plan.

Over 700 high risk individuals (i.e., those with drug and/or alcohol abuse problems so severe that they are in long term treatment facilities) were tested to see if they had been exposed to the hepatitis C virus. All clients were offered the testing, but more than a hundred declined, but even these clients were counseled and developed Hepatitis Action Plans so they could access services in the future if they chose to do so.

Over 500 clients received one dose of the hepatitis B vaccine and 86 HCV+ did so. Of the 86 HCV+ clients received their first dose, 69 percent of those remaining in the LRT program who were due for a second dose got it. Clients who get only one dose of hepatitis A or two doses of hepatitis B vaccine are afforded a high degree of protection. This is important for these high-risk clients and imperative for those who are hepatitis C positive.

The areas where goals fell below expectations were largely out of the control of the Hep-C ALERT staff, specifically, losing clients to follow-up for medical care and/or vaccination, clients refusing to be vaccinated, and to the unknown availability of the supply (initially) of the hepatitis A vaccine. The degree to which specific objectives have been met are discussed below:

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- a) Of the 951 LRT clients admitted during the project period and attending the viral hepatitis workshop, 862 attended the initial counseling and testing session. The others either graduated from or dropped out of LRT prior to their initial counseling session. (Only six clients declined counseling.) Of those counseled, 84 percent were tested for hepatitis C, with a seroprevalence rate of 15 percent.
- b) Workshop participants were given pre- and post-tests to measure how much they had learned about hepatitis. The goal was to achieve average scores of 75 percent. Post-test scores (10-question survey) averaged 79 percent, exceeding the goal. Overall, knowledge increased 10 percentage points from pre-test to post-test. 77 percent of clients indicated their knowledge was "greatly improved" and 16 percent "somewhat improved". Clients were quite satisfied with the workshops: 78 percent rated the workshop as "very important" to attend.
- c) Of clients remaining in LRT, 81 percent received the 1st dose of hepatitis B vaccine. Of clients remaining in LRT 30 days later, 94 percent received their 2nd dose of hepatitis B vaccine. Of those clients who were due for their 3rd dose, 78 percent got it.
- d) The 135 identified HCV+ clients were offered hepatitis A vaccine, and 86 percent received their 1st dose. Of those due for their second dose, 69 percent got it. In addition to the HCV+ clients, 418 HCV- clients received a first dose of the hepatitis A vaccine, and 30 received their second dose.
- e) One hundred percent of the 862 counseled clients received a Hepatitis Action Plan with instructions on follow-up testing and/or vaccination. This care plan included appointment dates and contact information numbers of providers. Particularly, individuals testing HCV+ (or disclosing they were already HCV+) were referred to the Health Department for confirmatory blood testing and to primary care. We were able to confirm that 27 percent of the HCV+ clients had received at least one of these treatments.
- f) See Project Summary in Appendix I for more details.

QUESTION 4. IF APPLICABLE, EXPLAIN WHY OBJECTIVES HAVE NOT BEEN MET.

The ARHIP project did not succeed without problems and unanticipated obstacles. Comparison of project updates at six, nine, and twelve months reveal these barriers, some of which had an impact on performance measures and others that resulted in valuable lessons learned. The following outlines the program's overall challenges:

ENROLLMENT: Client enrollment was slow during the start of the intervention. This was not within Hep-C ALERT's control; however, two new LRT programs were added mid-project to increase enrollment. It was estimated that 1000 clients would be enrolled during the year; 951 were.

ADJUSTED MEASURES: Approximately 15 to 20 percent of clients exited the recovery program (transferred to jail/prison, unsuccessfully terminated by the program or exited the program on their own) before services could be completed. In addition, one of the four LRT programs offers a shorter-term treatment option that graduates clients in 30 days. Neither situation was anticipated when developing ARHIP's initial performance measures. Hep-C ALERT consulted Williams, Stern and Associates to determine the appropriate course of action. They recommended adjusting the performance calculation to identify clients who are eligible for service and base the performance measure on those clients.

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INCREASING ACCESS TO COMMUNITY HEALTH CARE: An early goal of the ARHIP intervention was to increase enrollment of at-risk adults in the community/indigent health care system. A survey was conducted to determine the clients' needs in this area. The results indicated that a majority of clients were not enrolled to receive care through the local community/indigent healthcare system. This information was different than what the staff at the LRT facilities was reporting. LRT administrators said that almost all clients were already enrolled. To determine where the discrepancy was, ARHIP staff randomly selected pre-workshop surveys showing "no coverage/card", and conducted interviews with both clients and the LRT medical staff. The results showed that there was a problem with the wording in the questionnaire and that many clients already had community/indigent healthcare enrollment cards.

In addition, after implementing ARHIP it became clear that this objective was outside the scope of Hep-C ALERT's responsibility when working within the LRT program. Clients rely directly on LRT nursing/medical staff, not Hep-C ALERT, for assistance on medical care and access issues. Although the goal of increasing access to community health care was not able to be implemented in the manner originally conceived, the clients were provided with numerous health services they would not have received otherwise. They were educated about hepatitis, provided with a personalized hepatitis health care plan, given the opportunity to be tested for hepatitis C, vaccinated for both hepatitis A and B, and if HCV+ given counseling and referrals to specialty care.

ACCESSING MEDICAL ATTENTION FOR HCV+ CLIENTS: Hep-C ALERT has been able to document that 27 percent HCV + clients went on to get specialty care, including confirmatory testing, medical exam, liver biopsies, and /or starting a medication regime. The actual number may be higher than can be documented because the Hep-C ALERT staff lost contact with clients after they left the LRT. Getting HCV+ clients to "medical" care while they are in the LRT program has been more difficult than originally thought. Barriers include the amount of time it takes to get the HCV-antibody test confirmed with follow-up labs, competing priorities with recovery, difficulty coordinating care with each facility's medical liaison and follow through once client is discharged.

QUESTION 5. IF NOT ADDRESSED IN THE QUESTIONS ABOVE, WHAT UNEXPECTED BARRIERS/ISSUES/OPPORTUNITIES WERE FACED THAT IMPACTED THE IMPLEMENTATION OF THE PROJECT?

RESEARCH PROJECT: Hep-C ALERT and the Miami-Dade County Health Department initially developed ARHIP as a research project and submitted a proposal to the Florida Department of Health Review Council for Human Subjects (R.C.H.S.). The preliminary Review Council response was received after the October project launch and requested a relatively minor, but complex and expensive change that would make obtaining R.C.H.S. approval prohibitive. Nevertheless, Hep-C ALERT maintained and implemented the original research design, including informed consent and other procedures to protect the study subjects.

DISCHARGE/OUTCOMES SURVEYS: Another unexpected barrier was implementation of the ARHIP Discharge/Outcomes Survey. The survey was intended to be verbally administered by LRT staff (counselor, case manager or other discharge planner) prior to the client's discharge from residential treatment, to document client outcomes and program satisfaction after the scope of services were rendered. Unfortunately, very few were successfully completed and the data could not be used.

ESTIMATING CLIENT RESPONSE TO VACCINATION: Finally, it was projected that approximately 10% of LRT clients would decline hepatitis B vaccination. In actuality, 19 percent declined. In retrospect, this projection of 10 percent refusal was probably too low. In informal consultation with CDC, it was discovered that 20 percent refusal rates for vaccination are not unusual, especially within certain

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population groups. ARHIP staff conducted a sample survey of vaccine-declining clients to learn what their concern/barrier was. It was found that about one-third were afraid of needles and/or the side effects of the vaccine, about one-third did not trust the medical system especially in regard to being given injections and one-third refused to provide a reason why they would not be vaccinated.

QUESTION 6. WHAT PROJECT STRATEGIES/COMPONENTS WORKED WELL?

Overall Hep-C ALERT's ARHIP concept worked remarkably well. Staff were welcomed into the LRT facilities, and the workshops and individual counseling provided as part of the intervention motivated hundreds of at-risk adults to get vaccinated and tested.

COUNSELING: Virtually all clients (> 99%) who were available for the initial counseling session received one. Six clients declined participation and three did not show up for their appointments. During the initial counseling session, clients received a Hepatitis Action Plan that contains instructions on accessing hepatitis vaccine at the Health Department once they are no longer in LRT. Almost all (99%) of those clients who had attended the initial counseling session and who were tested, and who were still enrolled, received a second counseling session.

TESTING: Eighty-four percent (722 clients) both completed risk assessments and got tested for HCV. Sixteen percent (140 clients) were not tested, but did complete the risk assessment. Neither knowledge of HCV status nor race/ethnicity were related to whether clients refused to be tested, but there was a small relationship between gender and age group and being tested. Males and older persons were less likely to be tested.

CURRICULA: Hep-C ALERT curricula for the group hepatitis education program are highly effective in stimulating interest and self-referral for risk assessment and testing. Intense Q & A from participants during the workshop reflected a high level of interest, and clients indicated on the post-workshop survey that they were very satisfied with the trainer/program.

DATA MANAGEMENT: Employing laptops in the field and having "real-time" data, enabled the staff to turn over client information to the programs much more quickly and provide a higher quality of care. At no time is an ARHIP counselor without client information.

Hep-C ALERT made an impact on the lives and health of the clients that they served, and will make a continuing impact on our community by helping to stem the spread of hepatitis both through vaccination and education which will hopefully decrease risky behaviors in a vulnerable population.

QUESTION 7. WHAT WAS LEARNED THROUGH THE IMPLEMENTATION OF THE GRANT PROJECT?

The primary thing that was learned was that the model works, particularly in the early stages - people are educated, tested, vaccinated and provided with referrals. A second and equally important finding was that there can be cooperation between community agencies - ARHIP would not have worked without with cooperation of the Hep-C ALERT, the LRTs, and the Health Department.

INTER-AGENCY METHODS AND PROCEDURES: ARHIP methods and procedures appear to work very well in the LRT setting as long as the LRT staff interaction with the project is passive (e.g., providing space for counseling sessions or providing a list of new clients admitted). In situations where more intensive LRT staff interaction is required, such as completing project forms, there have been problems with consistent cooperation. Causal factors include voluminous workload, staff turnover, and varied systems of LRT operations. New procedures and paperwork that impact LRT staff

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require significant time and training/re-training to integrate. Future programming needs to consider the existing burden on LRT staff and their ability to respond to outside programming needs.

QUESTION 8. WHAT OPERATIONAL ISSUES WILL BE ADDRESSED AS THE PROJECT CONTINUES?

The following recommendations were made as part of the evaluation:

CASE MANAGEMENT: Change the scope of responsibilities of the two ARHIP Counselor/Trainers in order to provide more intensive case management services. One staff person should perform education/counseling/testing tasks and the other staff should act as Case Manager. Working in tandem with the Counselor/Trainer, the Case Manager should focus primarily on coordinating vaccine and medical care processes to ensure client referral completion and recording of those data.

DATA MANAGEMENT: Although the data management in this intervention is much better than what is seen in many services provision demonstrations and even on-going programs, the evaluators recommend that ARHIP attempt to further integrate the data entry and data sharing between the various components of the project. For example, automatically populating field across tables, automatic date recording when appropriate and so forth.

COORDINATION OF CARE: Enhance coordination between Hep-C ALERT and the local Health Departments as a means of obtaining information on the completion of vaccine series, especially for clients who have finished or left the LRT facility before the last doses of vaccine were due.

Question 9. Summarize development/sustainability activities that will/may result in additional funding for the grant project.

Hep-C ALERT has submitted ARHIP grant applications to Jackson Health System, Blue Foundation for a Healthy Florida, and continues to review the Federal Register and other funding sources for grant opportunities relating to Substance Abuse and Infectious Diseases.

SECTION 3: SEROPREVALENCE AND RISK FACTOR DATA ANALYSIS AND EVALUATION

Source of Data

Demographic Characteristics

Substance Abuse

Factors Related to the Use of Drugs

CDC Risk Factors

Other Substance Abuse Related Risk Factors

Other Risk Factors

Non-Injection Drug Users

HIV/HCV Co-Infection

Conclusions

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SOURCE OF DATA

Between October 2002 and September 2003, 856 individuals being treated for substance abuse at six different long term residential treatment (LRT) facilities in South Florida responded to a verbal hepatitis risk assessment survey as part of Hep-C ALERT's Addiction Recovery Hepatitis Intervention Project (ARHIP). Risk data were analyzed to determine significant differences between the entire sample and the HCV+ sample. Differences were tested using the Chi Square statistic.

DEMOGRAPHIC CHARACTERISTICS OF THE POPULATION SERVED

The respondents included 578 males (68%) and 278 females (32%). There were 253 Hispanics (30%), 284 non-Hispanic blacks (33%), 299 non-Hispanic whites (35%), and 20 with other or unknown race/ethnicity (2%). The average age was 36 years with a range of 18 to 66. One quarter of the respondents were under 30 years of age and less than ten percent were over 50 years of age. Table 1 shows the demographics of all ARHIP clients.

GENDER: In this sample of clients who were residents of substance abuse facilities, there were no statistically significant differences between the percentage of males and females in the HCV+ sample compared to the HCV- sample as either self-revealed or revealed through testing by the Hep-C ALERT staff.

AGE: There was a statistically significant difference in the age groups of the HCV+ sample and the HCV- sample. The average age of clients who were HCV+ was 42 compared to 35 for those who were HCV-.

RACE/ETHNICITY: There was a statistically significant difference in the race/ethnicity category in the HCV+ sample compared to the HCV- sample: 21 percent of the non-Hispanic whites were HCV+ compared with 13 percent each of non-Hispanic blacks and Hispanics. (Chi-square = 11.0, $p = .004$). There was also a statistically significant difference between the two samples in race/ethnicity and willingness to be tested for hepatitis C: 89 percent of Hispanics were tested versus 80 percent of non-Hispanic whites and 82 percent of non-Hispanic blacks. (Chi-square = 12.4, $p = .05$). HCV+ non-Hispanic whites were more likely to have been previously tested and diagnosed, and therefore chose not to be tested again. Accordingly, this finding shows that the reason for a higher percentage of non-Hispanic whites being HCV+ was probably not related to them being more willing to be tested.

EDUCATION LEVEL: There were no statistically significant differences between the two samples in education level. The education level of the ARHIP clients was 31 percent with less than a high school education, 27 percent with a high school diploma or GED, and 42 percent with at least some college or vocational training.

SEXUAL PREFERENCE: There were no statistically significant differences between the HCV+ and HCV- samples in their reported sexual preference. Overall, the respondents by self report were 84 percent heterosexual, 2 percent homosexual, and 14 percent bi-sexual.

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**Table 1. Hep-C ALERT's Addiction Recovery Hepatitis Intervention Project:
Demographic Characteristics**

	All Clients (N = 856)		HCV Positive (n = 135)		HCV Negative (n = 721)	
	Count	Percent	Count	Percent	Count	Percent
Gender						
Male	578	68%	96	71%	482	67%
Female	278	32%	39	29%	239	33%
Age ****						
18-25	154	18%	6	4%	148	21%
26-30	100	12%	9	7%	91	13%
31-40	338	39%	42	31%	296	41%
41-50	210	25%	63	47%	147	20%
51+	49	6%	14	10%	35	5%
Unknown	5	1%	1	1%	4	1%
Ethnicity **						
Hispanic	254	30%	32	24%	222	31%
Non-Hispanic Black	285	33%	37	27%	248	34%
Non-Hispanic White	299	35%	64	47%	235	33%
Non-Hispanic Other	18	2%	2	1%	16	2%
Country of Birth						
USA	787	92%	124	92%	663	92%
Other	69	8%	11	8%	58	8%
Education						
Did not finish high school	264	31%	39	29%	225	31%
High school or GED	234	27%	47	35%	187	26%
Some college or vocational school	356	42%	49	36%	307	43%
Unknown	2	< 1%	0	0%	2	< 1%
Sexual Preference						
Heterosexual	715	84%	108	80%	607	84%
Homosexual	17	2%	6	4%	11	2%
Bisexual	120	14%	20	15%	100	14%
Unknown	4	< 1%	1	1%	3	< 1%

Differences were tested using the Chi Square statistic: * p = .05; ** p = .01; *** p = .005; **** p < .001

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SUBSTANCE ABUSE

PREVIOUS SUBSTANCE ABUSE TREATMENT: More than half (53%) of the clients enrolled in ARHIP had been in a long term residential treatment center at least once before. Of those who had been in a LRT previously, 44 percent had been in once before, 23 percent twice before, 11 percent three times, 7 percent four times previously and 15 percent five or more times. Table 2 shows the substance abuse prevalence and risk factors for all ARHIP clients.

FACTORS RELATED TO THE USE OF DRUGS:

PREVIOUS RESIDENTIAL TREATMENT: There was a statistically significant difference between the HCV+ sample and the HCV- sample in previously having been in residential treatment. There was also a significant difference between the two samples in the number of times previously in treatment. Forty-four percent of the HCV+ sample had been in residential treatment three or more times compared to 31 percent of the HCV- sample.

INJECTING DRUGS: Persons who were HCV+ were more likely to have injected drugs, and this finding held for all types of drugs including heroin, speed, and cocaine. Additionally, they also were more likely to have been injecting drugs for more years.

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Table 2. Hep-C ALERT's Addiction Recovery Hepatitis Intervention Project: Substance Abuse

	All Clients (N = 856)		HCV Positive (n = 135)		HCV Negative (n = 721)	
	Count	Percent	Count	Percent	Count	Percent
Previous Residential Treatment ***						
No	400	47%	48	36%	352	49%
Yes	456	53%	87	64%	369	51%
Times Previously (n = 456) ****						
1	198	43%	25	29%	173	47%
2	106	23%	24	28%	82	22%
3	52	11%	12	14%	40	11%
4	32	7%	7	8%	25	7%
5	26	6%	4	5%	22	6%
6 or more	37	8%	14	16%	23	6%
Unknown	5	1%	1	1%	4	1%
Inject Drugs ****						
Yes	222	26%	110	81%	112	16%
No	633	74%	25	19%	608	84%
Unknown	1	< 1%	0	0%	1	0%
Inject Heroin ****						
Yes	162	19%	83	61%	79	11%
No	694	81%	52	39%	642	89%
Inject Speed ****						
Yes	51	6%	36	27%	15	2%
No	805	94%	99	73%	706	98%
Inject Cocaine ****						
Yes	153	18%	85	63%	68	9%
No	703	82%	50	37%	653	91%
Inject Other ****						
Yes	34	4%	16	12%	18	2%
No	822	96%	119	88%	703	98%
Injection Frequency (n = 222)						
More than once a day	119	54%	69	63%	50	45%
Once a day	17	8%	8	7%	9	8%
A few days a week	28	13%	13	12%	15	13%
Few days a month	10	5%	3	3%	7	6%
Less than once a month	46	21%	16	15%	30	27%
Not Answered	2	1%	1	1%	1	1%
Years Injecting Drugs (n = 222) ****						
Less than a year	34	15%	10	9%	24	21%
1 year	58	26%	21	19%	37	33%
2 years	31	14%	12	11%	19	17%
3 years	15	7%	5	5%	10	9%
4 to 9 years	48	22%	33	30%	15	13%
10 or more years	36	16%	29	26%	7	6%

Differences were tested using the Chi Square statistic: * p = .05; ** p = .01; *** p = .005; **** p < .001

CDC RISK FACTORS

The CDC defines several factors as placing individuals at high risk for HCV infection, including having had a blood transfusion or organ transplant before 1992, clotting factor concentrates before 1987, having had kidney dialysis, having injected drugs (even once) to get high and a history of elevated liver enzymes. Table 3 illustrates the CDC risk factors for all ARHIP clients.

INJECTING DRUGS: By far the most significant correlate with hepatitis C in this sample was having injected drugs. Overall, among these individuals who were being treated for substance abuse, over one quarter (26%) had injected drugs to get high at least once; however, 84 percent of those who were HCV- had never injected drugs, whereas, 81 percent of those who were HCV+ had injected drugs. (Chi-square = 257.5, $p < .001$).

BLOOD/BLOOD PRODUCTS: There was a statistically significant difference between the HCV+ sample and the HCV- sample in whether they had a blood transfusion: 14 percent for those who were HCV+ versus 8 percent of those who were HCV-. Having received clotting factor concentrates, an organ transplant, or kidney dialysis were rare events in this sample, occurring only 5 times (or for less than one percent of the clients). The three individuals who had received clotting factor concentrates or an organ transplant were all HCV-, and the two individuals who had had kidney dialysis were HCV+. Only one person said they had been told that they had received blood, blood components, or an organ from a person who later tested positive for hepatitis C.

ELEVATED LIVER ENZYMES: Having been told they had liver enzyme results that were higher than normal was also related to being positive for hepatitis C: 39 percent of those who were HCV+ answered “yes” as opposed to 18% who were HCV-.

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Table 3. Hep-C ALERT's Addiction Recovery Hepatitis Intervention Project: CDC Risk Factors

	All Clients (N = 856)		HCV Positive (n = 135)		HCV Negative (n = 721)	
	Count	Percent	Count	Percent	Count	Percent
Inject Drugs ****						
Yes	222	26%	110	81%	112	16%
No	633	74%	25	19%	608	84%
Unknown	1	< 1%	0	0%	1	< 1%
Blood Transfusion *						
Before 1992	47	5%	11	8%	36	5%
Before and After 1992	1	< 1%	0	0%	1	< 1%
After 1992	28	3%	7	5%	21	3%
No	761	89%	110	81%	651	90%
Unknown	19	2%	7	5%	12	2%
Clotting Factor						
Before 1987	2	< 1%	0	0%	2	< 1%
No	845	99%	133	99%	712	99%
Unknown	9	1%	2	1%	7	1%
Organ Transplant						
Before 1992	1	< 1%	0	0%	1	< 1%
No	855	> 99%	135	100%	720	> 99%
Kidney Dialysis						
Yes	2	1%	2	1%	0	0%
No	850	99%	132	98%	718	100%
Unknown	4	< 1%	1	1%	3	< 1%

Differences were tested using the Chi Square statistic: * p = .05; ** p = .01; *** p = .005; **** p < .001

OTHER SUBSTANCE ABUSE RELATED RISK FACTORS

RISKS WHEN INJECTING: Many of the clients who were injection drug users reported engaging in risky behaviors when injecting: 47 percent said they sometimes shared needles and another 14 percent said they always did so; of those who shared needles only 20 percent said that they always cleaned their needles (47% said they never cleaned needles); and 50 percent of IDUs said they sometimes shared the works and 15 percent said that they always did. Table 4 displays additional substance abuse-related risk factors for all ARHIP clients.

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**Table 4. Hep-C ALERT's Addiction Recovery Hepatitis Intervention Project:
Other Substance Abuse Related Risk Factors**

	All Clients (N = 856)		HCV Positive (n = 135)		HCV Negative (n = 721)	
	Count	Percent	Count	Percent	Count	Percent
Shared Needles (n = 222) ***						
Always	30	8%	18	16%	12	11%
Sometimes	105	28%	62	56%	43	38%
Never	85	13%	29	26%	56	50%
Unknown	2	< 1%	1	1%	1	1%
Clean Needles if Sharing (n = 135)						
Always	27	20%	16	20%	11	20%
Sometimes	43	32%	24	30%	19	35%
Never	61	45%	40	50%	21	38%
Unknown	4	3%	0	0%	4	7%
Share Works (n = 222) ****						
Always	33	15%	20	18%	13	12%
Sometimes	111	50%	66	60%	45	40%
Never	77	35%	23	21%	54	48%
Unknown	1	0%	1	1%	0	0%
Snort Drugs ****						
Always Share Paraphernalia	145	17%	40	30%	105	15%
Sometimes Share	394	46%	52	39%	342	47%
Never Shared	238	28%	31	23%	207	29%
Never Snorted	77	9%	10	7%	67	9%
Unknown	2	< 1%	0	0%	2	< 1%
Smoke Crack ****						
Always Share Paraphernalia	125	15%	33	24%	92	13%
Sometimes Share	335	39%	67	50%	268	37%
Never Shared	179	21%	20	15%	159	22%
Never Smoked	215	25%	13	10%	202	28%
Unknown	2	< 1%	2	1%	0	0%

Differences were tested using the Chi Square statistic: * p = .05; ** p = .01; *** p = .005; **** p < .001

DURATION OF INJECTION: On average, clients who were injection drug users had injected drugs for five years, with a range of less than a year to 32 years. There was a statistically significant difference between the HCV+ sample and the HCV- sample in the number of years that drugs had been injected. Those who were positive had injected drugs for an average of 8 years compared to 3 years for those who were negative. It should also be noted that those who were HCV+ were on average older than those who were HCV- and that there was a significant correlation between age and the number of years that drugs had been injected ($r = .32, p < .001$). Overall, the injection drug users were older than those who did not inject drugs: 38 years versus 35 years ($F = 13.5, p < .001$).

FREQUENCY OF INJECTION: More than half the clients who had injected drugs (52%) had done so at some time within the last year, 68 percent had injected drugs somewhere in South Florida, 54 percent said that they injected drugs more than once a day and another 8 percent did so daily. The most frequently injected drug was heroin (73%), followed by cocaine (69%). Almost one quarter (23%) injected speed. (These percentages are based on those who inject drugs.) About 15 percent injected something else including barbiturates, Oxycontin, Dilaudid, steroids, and so forth.

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OTHER RISK FACTORS

Table 5 outlines the non-CDC risk factors for all ARHIP clients, including multiple sex partners, incarceration, duration of incarceration, tattooing, and piercing practices.

MULTIPLE SEX PARTNERS: Having multiple sex partners is a risk factor for HCV infection. Eighty-two percent of those who were HCV+ reported having 10 or more sexual partners compared to 73% of the HCV- sample.

HISTORY OF INCARCERATION: The majority of the clients had been in jail or prison at some time; only 15 percent had never been incarcerated. Of the 85 percent who had been incarcerated, 32 percent had been incarcerated for less than one month, 35 percent for between one month and one year, 14 percent for between one and three years and 18 percent for three or more years. There was a statistically significant difference between the HCV+ sample and the HCV- sample in the history of incarceration: 95 percent of the LRT clients who were HCV+ had been incarcerated as opposed to 83 percent of HCV- clients (Chi-square = 12.4, $p < .001$).

PIERCING/TATTOO: Many of the clients had either body piercing or were tattooed (53% and 47% respectively); however, there was not a statistically significant difference between the two samples.

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Table 5. Hep-C ALERT's Addiction Recovery Hepatitis Intervention Project: Non-CDC Risk Factors

	All Clients (N = 856)		HCV Positive (n = 135)		HCV Negative (n = 721)	
	Count	Percent	Count	Percent	Count	Percent
Number of Sex Partners ****						
0	3	< 1%	0	0%	3	< 1%
1	12	1%	1	1%	11	2%
2	9	1%	2	1%	7	1%
3 - 9	190	22%	20	15%	170	24%
10 - 49	422	49%	53	39%	369	51%
50 - 99	114	13%	24	18%	90	12%
100 - 499	81	9%	26	19%	55	8%
500+	23	3%	7	5%	16	2%
Not Answered	2	< 1%	2	1%	0	0%
Incarcerated ****						
Jail	472	55%	59	44%	413	57%
Both Prison and Jail	231	27%	63	47%	168	23%
Prison	23	3%	6	4%	17	2%
Never Incarcerated	128	15%	6	4%	122	17%
Not Answered	2	< 1%	1	1%	1	< 1%
Duration of Incarceration (n = 728) ****						
1 - 6 Days	124	17%	10	8%	114	16%
7 - 30 Days	118	16%	8	6%	110	15%
> 1 month, < 1 year	251	34%	47	36%	204	28%
> 1 year, < 3 years	99	14%	26	20%	73	10%
Three years +	134	18%	27	21%	107	15%
Unknown	2	< 1%	1	1%	1	< 1%
Tattooed						
Tattoo Parlor	180	21%	26	19%	154	21%
At Home	126	15%	20	15%	106	15%
In Jail	81	9%	19	14%	62	9%
Multiple Locations	12	1%	4	3%	8	1%
Never Tattooed	455	53%	65	48%	390	54%
Unknown	2	0%	1	1%	1	< 1%
Pierced **						
In Store	281	33%	33	24%	248	34%
At Home	148	17%	31	23%	117	16%
In Jail	8	1%	3	2%	5	1%
Multiple Locations	8	1%	1	1%	7	1%
Never Pierced	404	47%	65	48%	339	47%
Unknown	7	1%	2	1%	5	1%

Differences were tested using the Chi Square statistic: * p = .05; ** p = .01; *** p = .005; **** p < .001

NON-INJECTION DRUG USERS

Injection drug use is a significant risk factor for HCV; therefore it is difficult to determine the relative risks of other factors when comparing IDUs to non-IDUs. Table 6 demonstrates the risk factors for non-injection drug users with and without HCV infection. The only statistically significant risk factor among this population is the sharing of crack cocaine paraphernalia. Due to the limited number of persons who were HCV+ and non-IDU, the statistical analysis is not strong enough to demonstrate significance between groups. The majority of the persons included in the ARHIP were IDUs, thus limiting the ability to draw conclusions about the risk factors among those who were non-IDUs.

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**Table 6. Hep-C ALERT's Addiction Recovery Hepatitis Intervention Project:
Risk Factors for Those Who Do Not Inject Drugs (n = 634)**

	Non-IDU Clients (n = 634)		HCV Positive (n = 25)		HCV Negative (n = 609)	
	Count	Percent	Count	Percent	Count	Percent
Snort Drugs						
Always Share Paraphernalia	76	12%	5	20%	71	12%
Sometimes Share	292	46%	10	40%	282	46%
Never Shared	196	31%	6	24%	190	31%
Never Snorted	70	11%	4	16%	66	11%
Smoke Crack *						
Always Share Paraphernalia	71	11%	6	24%	65	11%
Sometimes Share	235	37%	13	52%	222	36%
Never Shared	142	22%	3	12%	139	23%
Never Smoked	186	29%	3	12%	183	30%
Number of Sex Partners						
0	3	< 1%	0	0%	3	< 1%
1	10	2%	0	0%	10	2%
2	6	1%	0	0%	6	1%
3 – 9	160	25%	9	36%	151	25%
10 – 49	318	50%	8	32%	310	51%
50 – 99	76	12%	4	16%	72	12%
100 – 499	45	7%	3	12%	42	7%
500+	16	3%	1	4%	15	2%
Incarcerated						
Jail	355	56%	13	52%	342	56%
Both Prison and Jail	155	24%	11	44%	144	24%
Prison	16	3%	0	0%	16	3%
Never Incarcerated	107	17%	1	4%	106	17%
Unknown	1	< 1%	0	0%	1	< 1%
Duration of Incarceration (n = 527)						
1 - 6 Days	101	19%	1	4%	100	16%
7 - 30 Days	91	17%	2	8%	89	15%
> 1 month, < 1 year	178	34%	13	54%	165	27%
> 1 year, < 3 years	68	13%	4	17%	64	11%
Three years +	88	17%	4	17%	84	14%
Unknown	1	< 1%	0	0%	1	< 1%
Tattooed						
Tattoo Parlor	123	19%	1	4%	122	20%
At Home	93	15%	1	4%	92	15%
In Jail	56	9%	3	12%	53	9%
Multiple Locations	5	1%	0	0%	5	1%
Never Tattooed	356	56%	20	80%	336	55%
Unknown	1	< 1%	0	0%	1	< 1%
Pierced						
In Store	210	33%	6	24%	204	33%
At Home	97	15%	2	8%	95	16%
In Jail	5	1%	0	0%	5	1%
Multiple Locations	3	0%	0	0%	3	< 1%
Never Pierced	297	47%	17	68%	280	46%
Unknown	1	< 1%	0	0%	1	< 1%

Differences were tested using the Chi Square statistic: * p = .05; ** p = .01; *** p = .005; **** p < .001

HIV/HCV CO-INFECTION

A number of the clients with hepatitis C are co-infected with HIV or another sexually transmitted infection. Twelve percent of those who are HCV+ are also HIV+, compared to six percent of those who HCV-. As might be expected, the rate of HIV infection is higher among drug users than the general population in Miami (7% versus 1%), but it is unexpectedly higher among drug users who are also HCV+. Nearly a third (31%) of the clients in this study who were HIV+, also were HCV+ (Chi-square = 7.3, $p = .007$). More than half (55%) of the clients who were HCV+ had a sexually transmitted infection compared to 37 percent of those who were HCV-.

CONCLUSIONS

Seroprevalence and risk factor data analysis determined several significant differences between the HCV+ and the HCV- samples. Significant differences between the two samples included:

- having been previously in residential treatment;
- having had a blood transfusion;
- having been told that they had liver enzyme results that were higher than normal;
- number of years that drugs had been injected between;
- frequency of sharing needles;
- number of sex partners; and
- history and length of incarceration.

These differences are indicative of the risks associated with HCV infection. The identification of these risks may serve as a tool for improving risk assessment and screening among this vulnerable population.

The impact of HCV infection may very well increase tremendously over the next 10 to 20 years. It takes 20 to 30 years for chronic liver disease, cirrhosis, and liver cancer to develop, and conservative estimates indicate that illness and deaths from HCV-related liver disease among the millions of people infected during earlier years will increase two- to three-fold over the next two decades. Awareness of viral hepatitis as an important public health issue is growing, but agencies, providers and others who work with those at risk must address several key issues, including prevention, transmission, treatment, capacity and education. HCV is not inevitable for IDUs and others at risk—reducing or eliminating high-risk sexual and drug-use behaviors can help prevent HAV, HBV and HCV infections

There is a great need to educate and train both groups at increased risk and health care professionals to:

- a) improve the understanding of viral hepatitis and its risk factors so that individuals can reduce their chances of acquiring or transmitting the infections;
- b) encourage high-risk groups to be tested for HCV infection, receive counseling and receive medical treatment if appropriate; and
- c) integrate viral hepatitis prevention messages and interventions into existing HIV, STD, substance abuse treatment and criminal justice initiatives.

SECTION 4: CONCLUSION

Conclusion

References

CONCLUSION

Hep-C ALERT has implemented the ARHIP and meet the project's goals. This progress would not be possible without effective collaborations between various agencies and organizations, including Hep-C ALERT, long-term residential addiction treatment programs and the Miami-Dade County and Broward County Health Departments.

ARHIP goals and objectives focus on primary and secondary prevention for hepatitis A, B and C. Evaluation objectives include:

- a) Evaluating the effectiveness of an integrated approach to primary and secondary prevention of viral hepatitis among clients in long-term residential addiction treatment (LRT) programs;
- b) Analyzing the effectiveness of the Hep-C ALERT curricula in increasing knowledge and stimulating self-referral for vaccination and testing;
- c) Analyzing the effectiveness of the hepatitis health risk assessment in identifying risk factors for hepatitis C; and
- d) Connecting HCV+ clients in LRT programs to care and treatment.

ARHIP met and exceeded many of its goals, despite several challenges with program implementation. Over 950 clients, or 95 percent of all persons admitted into the LRT programs during the project period, were provided health education. The majority of workshop participants indicated that their knowledge of viral hepatitis was greatly improved as measured by pre-and post-testing.

Ninety-nine percent of clients remaining in the LRT facility received an individual counseling session within a few weeks of attending the workshop and were given the opportunity to be tested for hepatitis C, to be vaccinated for hepatitis A and B and develop a personal Hepatitis Action Plan.

Eighty-four percent of clients who received individual counseling were tested to see if they had been exposed to the hepatitis C virus. Fifteen percent tested positive for the virus. Another 4 percent self-reported their HCV+ status. Both groups were provided assistance in accessing confirmatory testing and medical attention. More than 25 percent were documented to have completed one or both steps by ARHIP staff.

Eighty-one percent of clients eligible for hepatitis B vaccine received their first dose and 94 percent of clients remaining in LRT received their second dose. Eighty-six percent of HCV+ clients eligible for hepatitis A vaccine received their first dose. Clients who get one dose of hepatitis A or two doses of hepatitis B vaccine are afforded a high degree of protection, which is important for these high-risk clients and imperative for those who are hepatitis C positive.

The areas where goals fell below expectations were largely out of the control of the Hep-C ALERT staff, specifically, losing clients to follow-up for medical care and/or vaccination, clients refusing to be vaccinated, and to the unknown availability of the supply (initially) of the hepatitis A vaccine.

The primary lesson of the intervention was that the ARHIP model works—people are educated, tested, vaccinated and offered care. Hep-C ALERT has had a positive impact on the lives and health of the clients it serves and through continued efforts, will help halt the spread of viral hepatitis among this vulnerable population.

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APPENDICES

Appendix I: Project Summary

Appendix II: Project Narrative Six Month Report

Appendix III: Project Narrative Nine Month Report

Appendix IV: Hepatitis C Risk Assessment Form

Appendix V: Supplemental Hepatitis C Risk Assessment

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APPENDIX I: PROJECT SUMMARY
ADDICTION RECOVERY HEPATITIS INTERVENTION PROJECT
October 2002 through September 2003

PROJECT ACTIVITY	ACTUAL PERFORMANCE	% OF GOAL	COMMENTS	ORIGINAL ESTIMATE
Clients served	951	95%	Goal: 1000. Actual: 951. Performance calculations are based on the actual enrollment, not the original estimate.	1000
Hepatitis health education workshops conducted	54 Workshops	108% Goal Exceeded		48 Workshops
<i>Knowledge measurement</i>	951 Surveys Score 79%	Goal Met	Goal: 75% average score. Actual: 79% average score (10-question survey). Client satisfaction: 78% rated the workshop as "very important" to attend. 77% indicated their knowledge was "greatly improved" and 16% "somewhat improved". Overall, knowledge increased 10 percentage points from pre-test to post-test.	Score >75%
Train the Trainer workshops conducted	11 Workshops 449 Trained Score 86%	Goal Met	Goal 2 Workshops, 10 Trained. Actual: 12 Workshops, 449 outreach workers, recovery facility staff, social workers, counselors, case managers and administrators trained. 86% average score (10-question survey).	2 Workshops 10 Trained Score 85%

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Initial counseling sessions	862	99% Goal Met	Goal: 95% of all Workshop Participants. Actual: 99% after adjusting for disqualifying events (868 clients were eligible).	95% of Workshop Participants
<i>Completed risk assessment and got tested for HCV</i>	722	84% Near Goal	Goal: 85% to 95% of 862 Counseling Participants. Actual: 84%.	85% - 95% Counseling Participants
<i>Completed risk assessment only</i>	140	16%		
<i>Declined (including no shows) both the survey and HCV testing</i>	6	1% Goal Met	Goal: < 5%. Actual: 1% of those still in treatment	< 5% of Workshop Participants
<i>Discharged involuntarily before 1st session</i>	69			
<i>Graduated program before 1st session</i>	14			
Second counseling sessions	596	99%	Goal: 100% of 722 Counseling Participants who were also tested. Actual: 99% after adjusting for disqualifying events (601 clients were eligible.) An additional 21 clients who were not tested received a second counseling session.	100% of Counseling Participants
	5	1%		
<i>Discharged involuntarily before 2nd session</i>	97			
<i>Graduated program before 2nd session</i>	24			

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<i>Positive results</i>	106 (29 additional clients self-reported, but were not tested)	15% (19% including self-reported)	Note: Estimated HCV prevalence: 20%. Has ranged from 11% to 18%.	20%
Received 1st dose HBV	538	81%	Goal: 90% of 862 Counseling Participants. Actual: 81% after adjusting for disqualifying events (667 clients were eligible, 123 declined).	90% of Counseling Participants
<i>Declined / personal reasons OR didn't show up for appt.</i>	123	19%		
<i>Declined 1st dose because they were already HBV-ab+</i>	111			
<i>Discharged involuntarily before 1st dose given</i>	69			
<i>Graduated program before 1st dose given</i>	21		Note: During the implementation phase, and when adding the two new sites mid-project, several clients were at the end of their treatment and discharged before their vaccine appointment. They did however, receive referral to the Health Department.	
Received 2nd dose HBV	337	94%	Goal: 100% of 538 Vaccine 1 Participants. Actual: 94% after adjusting for disqualifying events (357 clients were eligible, 20 declined).	100%
<i>Declined / personal reasons OR didn't show up for appt.</i>	20	6%		

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<i>Declined 2nd dose because they were already HBV-ab+</i>	11			
<i>Discharged involuntarily before 2nd dose given</i>	92			
<i>Graduated program before 2nd dose given</i>	78		Note: St. Lukes offers a short-term treatment option which graduates clients in as little as 30 days. (84% of those who graduated prior to their 2nd dose were from St. Lukes.) We were not aware that so many would leave program before dose 2. These clients were referred to the Health Department for their remaining vaccine doses.	
Received 3rd dose HBV	40	78%	Goal: 100% of 337 Vaccine 2 Participants. Actual: 78% after adjusting for disqualifying events (51 clients were eligible).	50%
<i>Declined / personal reasons OR didn't show up for appt.</i>	11	22%		
<i>Declined 3rd dose because they were already HBV-ab+</i>	1			
<i>Discharged involuntarily before 3rd dose given</i>	46			

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<i>Graduated program before 3rd dose given</i>	128			
	111			
Received 1st dose HAV (if HCV positive)	86	86%	Goal 100% of the 135 HCV+ clients. Actual: 86% after adjusting for disqualifying events (100 clients were eligible). An additional 418 HCV- clients received a 1st dose of HAV.	
<i>Declined / personal reasons OR didn't show up for their appointment</i>	14	14%		
<i>Declined 1st dose because they were already HAV-ab+</i>	26			
<i>Discharged involuntarily before 1st dose given</i>	8			
	1			
Received 2nd dose HAV (if HCV positive)	9	69%	Goal 50% of the 86 HCV+ clients who got their 1st dose. Actual: 69% after adjusting for disqualifying events (34 clients were eligible). An additional 30 HCV- clients received a 2nd dose of HAV.	

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<i>Declined / personal reasons OR didn't show up for their appointment</i>	4	31%		
<i>Declined 2nd dose because they were already HAV-ab+</i>	3			
<i>Graduated program before 2nd dose given</i>	28			
<i>Discharged involuntarily before 2nd dose given</i>	21			
	21			
Hepatitis Action Plan	862	100%	Goal: 100% of 862 Counseled Clients. Actual: 100%. Each client received a written care plan with instructions on follow-up testing and/or vaccination.	100% of Counseling Participants

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Accessing medical attention for HCV+	37	27%	<p>Goal: 80% of all HCV+ clients. There is documentation that 37 of the 135 HCV + clients went on to get medical care. Getting HCV+ clients to "medical" care while they're in the LRT program was more difficult than originally thought. Barriers include the amount of time it takes to get the HCV-antibody test confirmed with follow-up labs (required); competing priorities with recovery; difficulty coordinating care with each facility's medical liaison; and follow through once client is discharged.</p>	80% HCV+ Participants
Discharge/Outcomes Survey	140		<p>Goal: 100% of clients graduating LRT program. (See narrative.) LRT discharge case manager/counselor is supposed to conduct a brief outcome survey with the client immediately before discharge to document outcomes and obtain/confirm client's contact information for post-discharge follow-up. Getting the LRT programs to implement and consistently perform the survey has been problematic. Only recently have we been receiving completed surveys, and they are still not correct/complete. This has impeded our ability to document access to medical care, effect of services, and post-discharge follow-up.</p>	100% of Participants Graduating Program

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Analyze risk-factor data	856 Records		See ARHIP Risk Factor Report	Review data and produce final report
Test integrated service delivery model			Collaborators have ongoing contact, including emails, phone calls and site visits. Provider satisfaction surveys were not distributed, as all indicated during the mid-project site visit that they were highly satisfied with services and wanted to continue participating.	Final project report to collaborators

**APPENDIX II: PROJECT NARRATIVE SIX MONTH REPORT
ADDICTION RECOVERY HEPATITIS INTERVENTION PROJECT**

1. What are the goals/objectives of the grant project?

ARHIP goals are to increase hepatitis education, awareness, testing and referral for medical care; prevent new hepatitis infections; and evaluate the effectiveness of integrated hepatitis C testing and counseling among clients in long-term residential treatment (LRT) programs. Objectives for the first 6-month reporting period are as follows:

- a) Provide 600 LRT clients viral hepatitis health education, achieve post-workshop test scores >75%.
- b) Provide hepatitis risk assessment and counseling to 95% of LRT clients, 85% get tested for HCV.
- c) Provide 1st & 2nd dose of hepatitis B vaccine to 90% of LRT clients with 50% completing the 3-shot series.
- d) Analyze hepatitis C risk factor and seroprevalence data.
- e) Educate 10 outreach workers, counselors and case managers about viral hepatitis.
- f) Test integrated service delivery model between LRT programs, CBO and Health Department.

2. Provide a summarized description of how the grant project has been implemented.

- a) ARHIP hepatitis health risk assessment, knowledge assessment, and outcomes surveys were developed and reviewed with Miami-Dade County Health Department and Williams, Stern and Associates. The risk-factor/seroprevalence database was completed.
- b) The four LRT sites were selected and/or confirmed. Hep-C ALERT administration met with each LRT program director/administrator to create a written site implementation plan and finalize the Qualified Service Organization Provider agreements. ARHIP staff was trained on project procedures and management/security of electronic data in the field. Periodic quality assurance audits have been performed to ensure accuracy.
- c) LRT administration, staff and clients responded positively to ARHIP. Health education (for both LRT clients and staff), counseling, hepatitis C testing, and hepatitis A & B vaccine coordination with the Broward and Miami-Dade County Health Department has been implemented with few problems.

3. What has been accomplished with the grant resources, and to what extent was each objective met (quant/qual, performance, and outcomes).

- a) Of LRT clients attending the viral hepatitis workshop, 94% received hepatitis risk-assessment and counseling. Of those counseled, 82% were tested for hepatitis C, with a seroprevalence rate of 13%.
- b) Of clients remaining in LRT, 79% received the 1st dose of hepatitis B vaccine, which provides approximately 70% protection from hepatitis B infection. Of clients remaining in LRT thirty days later, 94% received their 2nd dose of hepatitis B. It is too soon to report the rate of completion of the 3rd dose.
- c) The 55 identified HCV+ clients were all offered hepatitis A vaccine, and 88% received their 1st dose, which provides approximately 90% protection from hepatitis A infection. It is too soon to report of the rate of completion of the 2nd dose.
- d) Individuals testing HCV+ (or disclosing they were already HCV+) were provided with a Hepatitis Care Plan and referred to the Health Department for confirmatory blood testing. Of clients we are

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able to follow-up (see #4b and #5b-c), 75% completed that referral. HCV+ clients who remain in LRT longer (90 to 120 days) were able to access primary care and some are waiting to get their appointment for specialty care. At this time, four clients have been seen in specialty care and received a liver biopsy, and three have started drug treatment.

e) Please see attached Project Summary for more details.

4. If applicable, explain why objectives have not been met.

- a) Enrollment: Client enrollment was 76% of what was anticipated in Phase I. Original projections didn't consider November/December as slow months for admissions into addiction recovery programs and early 2003 referrals were sluggish as well. Admissions are not within Hep-C ALERT's control, however, we are going to add two (or three) new LRT programs to increase enrollment up during Phase II of the project.
- b) Adjusted Measures: Approximately 15% to 20% of clients exited the recovery program (either transferred to jail/prison, were unsuccessfully terminated by the program; or exited the program on their own) before we could complete services. In addition, one of the four LRT programs offers a shorter-term treatment option that graduates clients in 30 days. Neither situation was anticipated when developing ARHIP performance measures. Williams, Stern and Associates was consulted and recommended that we adjust the performance calculation to identify clients who are eligible for service, and base the performance measure on those clients. (Note: during the initial counseling session, clients receive a Hepatitis Care Plan that contains instructions on accessing hepatitis B (and A) vaccine at the Health Department once they're no longer in LRT.)
- c) Increasing Access to Community Health Care: After implementing ARHIP, we realized that this objective was outside the scope of Hep-C ALERT's responsibility when working with the LRT program. Clients rely directly on LRT nursing/medical staff, not Hep-C ALERT, for assistance on medical care and access issues. LRT administrators say that many clients are already enrolled in community healthcare after admission. Clients however, indicated (on their pre-workshop survey) that they do not have a community health care card. To determine where the discrepancy is, ARHIP staff will randomly select pre-workshop surveys showing "no coverage/card", and conduct interviews with both clients AND the LRT medical staff. Once the area of discrepancy is identified, a course of action and/or recommendation can be decided. Regardless, ARHIP staff does work closely with HCV+ diagnosed individuals and the LRT medical staff to ensure referrals are made and completed.
- d) Progress Reporting: Finally, while in the implementation phase, Hep-C ALERT did not disseminate periodic ARHIP progress reports as hoped, but did keep in touch via email and phone calls with the collaborators. The collaborator's suggestions for program modifications were noted and changes were implemented to accommodate their unique needs whenever possible. The mid-project report and end-of-project report will be distributed to the collaborators and satisfaction surveys will be distributed and evaluated at the end of the project.

5. If not addressed in the questions above, what unexpected barriers/issues/opportunities were faced that impacted the implementation of the project.

- a) Project collaborators considered conducting ARHIP as a research project and submitted a proposal to the Florida D.O.H. Review Council for Human Subjects. Unfortunately, the preliminary Review Council response was received after the October project launch, and requested a relatively minor (but complex/expensive) change that made it prohibitive to proceed with obtaining R.C.H.S. approval. Williams, Stern & Associates was consulted, reviewed the protocol, and agreed that we should

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proceed with ARHIP as a project. The R.C.H.S. process did cause an unexpected delay in project implementation, but positively affected the project by providing infrastructure for informed consent, as well as project methods and procedures.

- b) ARHIP methods and procedures appear work very well in the LRT setting as long as the LRT staff interaction with the project is moderately passive (e.g., providing space for counseling sessions or referring newly admitted clients to the workshops). In situations where direct LRT staff interaction is required (such as completing the Discharge/Outcome Survey); we've had implementation problems. New procedures and paperwork that impact LRT staff and activities apparently require a long period of time and training/re-training to integrate. Future programming in LRT needs to account for this time and resource need.
- c) ARHIP procedure requires an LRT case manager/counselor complete a Discharge/Outcomes Survey with the client just prior to graduation. The form contains an outcome survey and space to write in the client's discharge contact information. Both are required for outcome measurement and follow-up. Even though trained on the form, both ARHIP staff and LRT case managers were unclear about who was supposed to complete the form, and only 13% were completed and returned. LRT administration was contacted in February, additional training was provided in February and March, and LRT staff indicated that they would complete and return the forms properly in the future. Client outcomes reporting and follow-up should improve significantly once the Discharge/Outcome Survey issue is resolved.
- d) Finally, we projected that approximately 10% of LRT clients would decline Hepatitis B vaccination. In actuality, approximately 17% declined. In Phase II, ARHIP staff will conduct a sample survey of vaccine-declining clients to learn what their concern/barrier is. This information will be used in future programming.

6. Explain specifically how and when grant resources were spent. (Provide spreadsheet).

- a) Please see attached 6-Month Project Budget vs Actual.

7. What project strategies/components worked remarkably well?

- a) Hep-C ALERT curricula for the group hepatitis education program are highly effective in stimulating interest and self-referral for risk assessment and testing. Intense Q & A from participants during the workshop reflect a high level of interest, and clients indicate on the post-workshop survey that they are very satisfied with the trainer/program.
- b) By designating a specific ARHIP staff-person to each LRT program, and having them spend time on-site each week (whether counseling sessions are scheduled or not), we developed high "brand" recognition and trust with clients. ARHIP staff are typically greeted by clients with waves and smiles.
- c) Employing laptops in the field and having "real-time" data, has enabled us to turnover client information to the programs much more quickly, and provide a higher quality of care. At no time is an ARHIP counselor without client information.

8. What was learned through the implementation of the grant project?

- a) Clients' direct responses to ARHIP "hepatitis" focus is unbelievably positive. They're now asking Hep-C ALERT to do their HIV testing as well, a good indicator of the trust relationship that's being

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developed. There is a viable opportunity to combine HCV and HIV testing into a single encounter, thus expanding the scope of interventions provided in the future.

- b) LRT programs have a client higher drop-out rate than originally planned. In the future, objectives will include this contingency.
- c) LRT programs are highly structured and LRT line-staff manage many competing demands. Active participation from LRT staff may be harder to obtain than originally thought, but it appears to be improving. In the future, objectives will include this contingency.

9. What operational issues will be prioritized as you continue the project?

- a) We will add two (or three) new LRT programs to increase enrollment.
- b) ARHIP staff will stay on top of the Discharge/Outcomes Surveys process and ensure that they are being completed and returned.
- c) ARHIP staff will work more closely with LRT medical staff to ensure that HCV+ clients are accessing medical care.
- d) ARHIP staff will randomly select pre-workshop surveys showing “no coverage/card” and conduct interviews with both clients and LRT medical staff to learn why there’s a discrepancy in client’s describing access to health care.
- e) ARHIP staff will conduct a survey to determine why >10% clients declined hepatitis B (and/or A) vaccination.
- f) Williams, Sterns and Assoc. will review seroprevalence data and develop the final reporting outline.

10. Summarize development/sustainability activities that will/may result in additional funding for the grant project.

- a) In December 2002, Hep-C ALERT became a registered HIV testing provider with Florida Department of Health. This will open the door to additional prevention grant opportunities.
- b) Community foundation support is being sought for staff expenses related to ARHIP (and similar services). Two grants are in process at this time. National charitable foundations likely to support this project have been identified and are in process of being contacted. A professional grant-writer has been contracted.
- c) Review of the Federal Register for grant opportunities relating to Substance Abuse and Infectious Diseases.

11. Samples of any publications and/or documents produced through the project's funding.

- a) To follow in hard-copy.

**APPENDIX III: PROJECT NARRATIVE NINE MONTH REPORT
ADDICTION RECOVERY HEPATITIS INTERVENTION PROJECT**

1. What are the goals/objectives of the grant project?

ARHIP goals are to increase hepatitis education, awareness, testing and referral for medical care; prevent new hepatitis infections; and evaluate the effectiveness of integrated hepatitis C testing and counseling among clients in long-term residential treatment (LRT) programs. Objectives for the 9-month reporting period are as follows:

- a) Provide 800 LRT clients viral hepatitis health education, achieve post-workshop test scores >75%.
- b) Provide hepatitis risk assessment and counseling to 95% of LRT clients, 85% get tested for HCV.
- c) Provide 1st & 2nd dose of hepatitis B vaccine to 90% or LRT clients with 50% completing the 3-shot series.
- d) Analyze hepatitis C risk factor and seroprevalence data.
- e) Educate 10 outreach workers, counselors and case managers about viral hepatitis.
- f) Test integrated service delivery model between LRT programs, CBO and Health Department.

2. Provide a summarized description of how the grant project has been implemented.

ARHIP hepatitis health risk assessment, knowledge assessment, and outcomes surveys were developed and reviewed with Miami-Dade County Health Department and Williams, Stern and Associates. The risk-factor/seroprevalence database was completed.

The six LRT sites: Spectrum Broward, Spectrum Miami-Dade, St. Luke's and The Village were selected and confirmed. (Stepping Stones and House of Hope was added in May 2003 in order to increase the number clients who could be served.) Hep-C ALERT administration met with each LRT program director/administrator to create a written site implementation plan and finalize the Qualified Service Organization Provider agreements. ARHIP staff was trained on project procedures and management/security of electronic data in the field. Periodic quality assurance audits have been performed to ensure accuracy.

LRT administration, staff and clients responded positively to ARHIP. Health education (for both LRT clients and staff), counseling, hepatitis C testing, and hepatitis A & B vaccine coordination with the Broward and Miami-Dade County Health Department has been implemented with few problems.

3. What has been accomplished with the grant resources, and to what extent was each objective met (quant/qual, performance, and outcomes).

Overall, Hep-C ALERT has made remarkable progress in implementing ARHIP and meeting the project's goals. The intervention is up and running at six LRT sites. It has received high praise from both clients and collaborators. Surveys of clients and LRT staff show a high degree of satisfaction with Hep-C ALERT. Train-the-trainer workshops have been held for facility staff and hepatitis education workshops for clients. Both have been rated as important by those who attended them. Subjective and objective measures have shown an improved knowledge as a result of attending the workshops. The majority of those who attended believed that their knowledge and understanding of hepatitis was greatly improved as measured by pre- and post-testing, with an average 10 percentage point improvement.

Nearly 800 clients were provided health education, given the opportunity to be tested for hepatitis C, to be vaccinated for hepatitis A and B, to be connected to primary health care if not already in care, and develop a personal Hepatitis Action Plan.

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Nearly 600 high risk individuals (i.e., those with drug and/or alcohol abuse problems so severe that they are in long term treatment facilities) were tested to see if they had or had been exposed to the hepatitis C virus. All clients were offered the testing, but more than a hundred declined, but even these clients were counseled and developed Hepatitis Action Plans so they could access services in the future if they chose to do so.

Over 400 clients received one dose of the hepatitis B vaccine and more than 90% who were due for their second dose received it. Nearly 400 clients received their first dose of hepatitis A vaccine and 82% of those who were HCV+ did so. Even though a number of clients were lost to followup because they had left or finished LRT prior to their last dose of vaccine being due six months later, making it impossible to know whether the full schedule of immunizations was completed, clients who get only one dose of hepatitis A or two doses of hepatitis B vaccine are afforded a high degree of protection. This is important for these high-risk clients and imperative for those who are hepatitis C positive.

The areas where goals fell below expectations were largely out of the control of the Hep-C ALERT staff, specifically, losing clients to followup for medical care and/or vaccination, clients refusing to be vaccinated, and to the unknown availability of the supply (initially) of the hepatitis A vaccine. The degree to which specific objectives have been met are discussed below:

- a) Of the 795 LRT clients admitted during the project period, 754 (94%) attended the viral hepatitis workshop. Fifty-one of the clients who had attended a workshop either graduated from or dropped out of LRT prior to their initial counseling session. Of the remaining 703 clients, 697 (99%) received hepatitis risk-assessment and counseling. Of those counseled, 84% were tested for hepatitis C, with a seroprevalence rate of 15%.
- b) Workshop participants were given pre- and post-tests to measure how much they had learned about hepatitis. The goal was to achieve average scores of 75%. Post-test scores (10-question survey) averaged 79% exceeding the goal. Overall, knowledge increased 10 percentage points from pre-test to post-test. 77% of clients indicated their knowledge was "greatly improved" and 16% "somewhat improved". Client were quite satisfied with the workshops: 78% rated the workshop as "very important" to attend.
- c) Of clients remaining in LRT, 82% received the 1st dose of hepatitis B vaccine, which provides approximately 70% protection from hepatitis B infection. Of clients remaining in LRT thirty days later, 91% received their 2nd dose of hepatitis B vaccine. We were able to confirm that nearly one-quarter (24%) of the clients received their 3rd dose. This is probably an underestimate of the true number of clients who got their third dose because many clients were lost to followup after leaving the LRT facility.
- d) The 107 identified HCV+ clients all were offered hepatitis A vaccine, and 82% received their 1st dose, which provides approximately 90% protection from hepatitis A infection. Because the 2nd dose is to be given six months after the first, many clients were lost to followup due to already having left LRT. We were able to confirm that 23% of clients who were due for their 2nd dose, got it.
- e) One hundred percent of the 697 counseled clients received a Hepatitis Action Plan with instructions on followup testing and/or vaccination. This care plan included appointment dates and contact information numbers of providers. Particularly, individuals testing HCV+ (or disclosing they were already HCV+) were referred to the Health Department for confirmatory blood testing and to primary care. We were able to confirm that 21% of the HCV+ clients had received at least one of these treatments.
- f) Please see attached Project Summary for more details.

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4. If applicable, explain why objectives have not been met.

Enrollment: Client enrollment was slow during the start of the intervention. This was not within Hep-C ALERT's control. Hep-C ALERT added two additional programs in May 2003 in order to meet this expected goal and is now right on track to doing so. It was estimated that 798 clients would be enrolled during the first 9 months of the project: 795 were. Of this number, 51 left LRT prior to a workshop being offered. It is anticipated that fewer clients will be lost prior to workshops and/or the initial counseling sessions in the future because Hep-C ALERT will already be on site, and not starting up in the middle or near the end of a client's treatment.

Adjusted Measures: Nearly one-quarter of clients (22%) exited the recovery program (either transferred to jail/prison, were unsuccessfully terminated by the program; or exited the program on their own) before services could be completed. In addition, one of the six LRT programs offers a shorter-term treatment option that graduates clients in 30 days. Neither situation was anticipated when developing ARHIP performance measures. Hep-C ALERT consulted Williams, Stern and Associates and was directed to adjust the performance calculation to identify clients who are eligible for service, and base the performance measure on those clients.

Counseling: Virtually all clients (> 99%) who were available for the initial counseling session received one. Three clients declined participation and three did not show up for their appointments. During the initial counseling session, clients received a Hepatitis Action Plan that contains instructions on accessing hepatitis vaccine at the Health Department once they are no longer in LRT. Almost all (98%) of those clients who had attended the initial counseling session, and who were still enrolled, received a second counseling session.

Testing: Eighty-four percent (585 clients) both completed risk assessments and got tested for HCV. Sixteen percent (112 clients) were not tested, but did complete the risk assessment. Neither knowledge of HCV status nor race/ethnicity were related to whether clients refused to be tested, but there was a small relationship between gender and age group and being tested. Males and older persons were less likely to be tested.

Increasing Access to Community Health Care: A goal of the intervention was to increase access to community health care for clients in LRT; particularly to primary care. To determine the clients' needs in this area a pre-workshop survey was conducted. The results of this survey suggested that a number of clients did not have access to community health care, however, this was at variance with what the administration at the LRT facilities was reporting. LRT administrators said that many clients were already enrolled in community healthcare. To determine where the discrepancy was, ARHIP staff randomly selected pre-workshop surveys showing "no coverage/card", and conducted interviews with both clients and the LRT medical staff. The results showed that there was a problem with the wording in the questionnaire and that many clients do already have JMH or other community-based health cards. The wording of the survey question needs to be changed.

In addition, after implementing ARHIP, it became clear that this objective was outside the scope of Hep-C ALERT's responsibility when working with the LRT program. Clients rely directly on LRT nursing/medical staff, not Hep-C ALERT, for assistance on medical care and access issues. Although the goal of increasing access to community health care was not able to be implemented in the manner originally conceived, it should not be overlooked that the clients were provided with numerous health services. They were educated about viral hepatitis, provided with a personalized Hepatitis Action Plan, given opportunities to be tested for hepatitis C, vaccinated for both hepatitis A and B, and if HCV+, given referrals and additional health education.

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Accessing medical attention for HCV+ clients: Hep-C ALERT has only been able to document that 1 out of 5 HCV+ clients went on to get specialty care, including confirmatory testing, medical exam, liver biopsies, and /or starting a medication regime. This number may be higher than can be documented because the Hep-C ALERT staff lost contact with clients after they left the LRT. Getting HCV+ clients to "medical" care while they are in the LRT program has been more difficult than originally thought. Barriers include the amount of time it takes to get the HCV antibody test confirmed with followup labs; competing priorities with recovery; difficulty coordinating care with each facility's medical liaison; and follow through once the client is discharged.

Progress Reporting: Finally, Hep-C ALERT did not disseminate periodic ARHIP progress reports to ARHIP collaborators as projected. However, Hep-C ALERT management indicates that communications were maintained through regular email and phone calls, and periodic site visits. Collaborators' suggestions for program modifications were noted and changes implemented as needed.

5. If not addressed in the questions above, what unexpected barriers/issues/opportunities were faced that impacted the implementation of the project.

Project collaborators considered conducting ARHIP as a research project and submitted a proposal to the Florida D.O.H. Review Council for Human Subjects (R.C.H.S.). Unfortunately, the preliminary Review Council response was received after the October project launch, and requested a relatively minor (but complex/expensive) change that made it prohibitive to proceed with obtaining R.C.H.S. approval. Hep-C ALERT consulted Williams, Stern & Associates, and was directed to proceed with ARHIP as a project. The R.C.H.S. process did cause an unexpected delay in project implementation, but positively affected the project by providing infrastructure for informed consent, as well as project methods and procedures.

A major unexpected barrier to implementation of the project was getting certain information from the program sites in a timely manner. ARHIP methods and procedures appear to work very well in the LRT setting as long as the LRT staff interaction with the project is moderately passive (e.g., providing space for counseling sessions). In situations where direct LRT staff interaction is required, such as completing project forms or following protocol, there have been problems. Causal factors include voluminous workload, staff turnover, and varied systems of LRT operations. New procedures and paperwork that impact LRT staff and activities apparently require time and training/re-training to integrate. Future programming needs to account for the limitations of LRT staff and their ability to be actively involved with outside programming.

Finally, it was projected that approximately 10% of LRT clients would decline hepatitis B vaccination. In actuality, 18% declined. In retrospect, this projection of 10% refusal was probably too low. In consultation with CDC, it was discovered that 20% refusal rates for vaccination are not unusual, especially with at-risk adults. ARHIP staff conducted a sample survey of vaccine-declining clients to learn what their concern/barrier was. It was found that about one-third were afraid of needles and/or the side effects of the vaccine, about one-third did not trust the medical system especially in regard to being given injections, and one-third refused to provide a reason why they would not be vaccinated.

6. Explain specifically how and when grant resources were spent. (Provide spreadsheet).

Please see the attached Project Budget.

7. What project strategies/components worked remarkably well?

Overall the Hep-C ALERT concept worked remarkably well. ARHIP staff were welcomed into the LRT facilities. The workshops and individual counseling sessions provided as part of the intervention motivated hundreds of at-risk individuals to get tested for hepatitis C, and vaccinations for hepatitis A and B, and the

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Health Department made sure that there was sufficient vaccine to insure that these persons could be vaccinated. Hep-C ALERT made an impact on the lives and health of the clients that they served, and will make a continuing impact on our community by helping to stem the spread of hepatitis both through education, screening and vaccination, which will hopefully decrease risky behaviors in a vulnerable population.

Hep-C ALERT curricula for the group hepatitis education program are highly effective in stimulating interest and self-referral for risk assessment and testing. Intense Q & A from participants during the workshop reflected a high level of interest, and clients indicated on the post-workshop survey that they were very satisfied with the trainer/program. By designating a specific ARHIP staff-person to each LRT program, and having them spend time on-site each week (whether counseling sessions are scheduled or not), Hep-C ALERT developed a trust relationship with LRT clients. Finally, using laptops in the field to collect project data enabled ARHIP staff to provide client information to the LRT programs much more quickly, which may have resulted in a higher quality of care.

8. What was learned through the implementation of the grant project?

The primary thing that was learned through implementation of the intervention was that ARHIP methods and procedures for the most part works particularly in the early stages --- people are educated, tested, vaccinated and provided with referrals. A second and equally important finding was that there can be cooperation between community agencies: ARHIP would not have worked if the LRT administration and staff and the Health Department had not each cooperated and done their part.

It was learned that LRT clients face many obstacles to referral completion, and often need encouragement, support and assistance. Additionally, LRT programs are highly structured and LRT line-staff manage many competing demands. Accordingly, consistent cooperation and participation from LRT staff was harder to obtain than originally thought. In the future, program design needs to consider these situations.

9. What operational issues will be prioritized as you continue the project?

The following recommendations were made as part of the evaluation:

- a) Consider adding a Case Manager to the ARHIP counseling team to improve vaccine and medical care processes and increase client referral completion.
- b) Although the data management in this intervention much better than what is seen in many services provision demonstrations and even on-going programs, the evaluators recommend that Hep-C ALERT attempt to further integrate the data entry and data sharing between the various components of the project. For example, automatically populating field across tables, automatic date recording when appropriate and so forth.
- c) Better coordination with Health Department to obtain information on the completion of vaccine series, especially for clients who have finished or left the LRT facility before the last doses of vaccine were due.

10. Summarize development/sustainability activities that will/may result in additional funding for the grant project.

Hep-C ALERT, with the current ARHIP partners, has submitted grant applications to the Centers for Disease Control and Prevention and to Jackson Health System, and continues to review the Federal Register and other funding sources for grant opportunities relating to Substance Abuse and Infectious Diseases.

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11. Samples of any publications and/or documents produced through the project's funding.

Please refer to attachments from the 6-Month Project Report.

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APPENDIX IV: HEPATITIS C RISK ASSESSMENT FORM

Send completed original form to:
Bureau of Epidemiology
4052 Bald Cypress Way, Bin A-12
Tallahassee, Florida 32399-1720
Or FAX: (850) 414-6894



Last Name: _____ **First Name:** _____
Address: _____
City: _____ **State:** _____ **Zip:** _____ **County:** _____
Phone: _____ **Date of Birth (mm/dd/yyyy):** _____ **Age:** _____
Sex: M F **Race:** W B Asian/PI American Indian/Alaskan Native Other Unknown
Ethnicity: Hispanic Haitian

Test and vaccination history (Check all that apply)

- Have you ever had hepatitis?----- Yes No Unknown
 If yes, what kind? A B C Other Unknown
- Have you ever been told that you tested positive for hepatitis?----- Yes No Unknown
 If yes, what kind? A B C Other Unknown
- Have you ever received the hepatitis A vaccine?----- Yes No Unknown
 If yes, how many doses? 1 2 Don't know
- Have you ever received the hepatitis B vaccine?----- Yes No Unknown
 If yes, how many doses? 1 2 3 Don't know

Risk Exposures: CDC defined high risk groups for HCV infection

- Have you ever received transfusion of blood or blood components?
 Yes No Don't know
 If yes, any before July 1992? Yes No Don't know
- Have you ever received clotting factor concentrates?
 Yes No Don't know
 If yes, any before July 1987? Yes No Don't know
- Have you ever received an organ transplant?
 Yes No Don't know
 If yes, any before 1992? Yes No Don't know
- If yes to questions 1, 2, or 3, Have you ever been told that you received blood, blood components or organs from a person who later tested positive for hepatitis C?
 Yes No Don't know
- Have you ever been told that you had liver enzyme results higher than normal?
 Yes No Don't know
- Have you ever received hemodialysis?
 Yes No Don't know
- Have you ever, even once, injected drugs to get high?
 Yes No Don't know

Ask question #8 as an open-ended question. Do not read off answers. (Check all that apply)

- Why do you want to be tested for hepatitis C?
 Risk factor listed above (#1-7) Long term sexual partner with hepatitis C
 Household contact of a person with hepatitis C Shared needles for vitamins/medications
 Born to a mother with hepatitis C Previous HCV positive
 Sexually transmitted diseases Occupational risk Jails-inmate
 Sex for money Needlestick injury Prisons-inmate
 Multiple sexual partners Body piercing Snorting Drugs
 Sexual Preference Tattoos Other _____

Test Type: Serological Home Test Kit in clinic Home Test Kit Refused

Interviewer's name: _____ Date: _____ Provider: **HEP-C ALERT | 7645**
 Pin number: _____ - _____ - _____ - _____

**APPENDIX V: SUPPLEMENTAL HEPATITIS C RISK ASSESSMENT
FOR ADDICTION RECOVERY PROGRAM CLIENTS**

Interviewer's Name: _____ Date: _____

General Information

1) Client name: _____ Date of Birth: _____

2) What country were you born in? U.S. Non-U.S. (*Specify*) _____

2a) *If applicable*, what year did you come to the United States? _____

3) *If Hispanic ethnicity*, what is your area of origin?

Hispanic-Caribbean Central American
 South American Unknown/Other

4) Which of the following best describes your education?

Some college or vocational school education
 High school graduate or received GED
 Did not finish high school

5) Have you been in a residential addiction recovery program before?

Yes No Don't know

5a) *If yes*, how many times (not including this time?) _____

6) How many days have you been in this residential addiction recovery program? _____

7) Is your enrollment in this treatment program: Voluntary Court Ordered Don't know

Supplement to Risk Exposure Questions #1 - #7 on Hepatitis Risk Assessment Form:

8) If yes to "Have You Ever Received A Transfusion Of Blood Or Blood Components": N/A

When you received the transfusion of blood or blood components, was it:

Before July 1992 July 1992 or later
 Both Before/After 1992 Don't Know

8a) In which country? _____

9) If Yes to "Have You Ever Received Clotting Factor Concentrates": N/A

When you received clotting factor concentrates for a bleeding disorder, was it:

Before July 1987 July 1987 or later
 Both Before/After 1987 Don't Know

10) If Yes to "Have You Ever Received An Organ Transplant": N/A

When you received an organ (body part) transplant, was it:

Before July 1992 July 1992 or later
 Both Before/After 1992 Don't Know

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11) If Yes to "**Have You Ever, Even Once, Injected Drugs To Get High**": N/A

When you were injecting drugs:

11a) What kinds of drugs did you inject? (*Check all that apply*)

- Heroin/Opiates Speed/Amphetamines/Crystal Meth
 Cocaine Other _____

11b) How many years (total in your lifetime) were you injecting? _____

11c) When was the last time you injected drugs? (year) _____

11d) Where were you when you were injecting drugs? (*Check all that apply*)

- South Florida (Miami) Elsewhere in Florida
 Elsewhere in U.S. In another country

11e) How often did you usually inject?

- More than once a day Once a day
 A few days a week A few days a month
 Less than once a month

11f) How often did you share your needles and syringes with anyone else?

- Always Sometimes Never

11g) How often did you clean your needles with bleach if sharing with others?

- Always Sometimes Never Doesn't apply

11h) How often did you share works, including filters, water and cookers, with anyone else?

- Always Sometimes Never

Supplement to Risk Exposure Section #8 Hepatitis Risk Assessment Form:

12) Have you ever snorted drugs? If yes, how often did you **share** straws, bills or spoons?

- Never snorted drugs (*If selected, skip other options*)
 Always shared Sometimes shared Never shared

13) Have you ever smoked crack cocaine? If yes, how often did you **share** a crack pipe?

- Never smoked crack (*If selected, skip other options*)
 Always shared Sometimes shared Never shared

14) Have you ever gotten a tattoo? If yes, where?

- Never got tattooed (*If selected, skip other options*)
 Store/Parlor Home/Other setting
 Jail/Prison Don't know

15) Have you ever had body piercing? If yes, where?

- Never got pierced (*If selected, skip other options*)
 Store/Parlor Home/Other setting
 Jail/Prison Don't know

16) How many different sex partners have you had in your lifetime?

- 0 1 2 3 - 9
 10 - 49 50 - 99 100 - 499 ≥500

17) Do you have sex with:

- Men Women Both

18) Have you ever had a sexually transmitted infection?

- Yes No Don't know

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19) Have you had sex exposing you to blood or menstrual fluid other than your own?

Yes No Don't know

20) Have you ever been in prison or jail for at least one day?

No (If selected, skip other options).
 Prison Jail Both

21) What was the longest stretch of time you were ever in prison or jail?

Never in prison or jail (If selected, skip other options)
 1-6 days
 7 days to 30 days
 More than a month but less than a year
 More than one year but less than three years
 Three years or more

22) Have you ever been tested for HIV?

Yes No Don't know Refused

22a) If yes, what was the result?

Positive Negative Don't know Refused

22b) If positive, are you currently receiving medical care for your HIV?

Yes No Don't know Refused

23) Have you ever been in close contact with someone diagnosed with hepatitis C?

No (If selected, skip other options).
 Don't know (If selected, skip other options).
 Sexual contact
 Household contact
 Needle sharing partner
 Other _____ (Specify)

24) What was the client's Hepatitis C test election after risk assessment? (Check one only)

Yes. Never been tested.
 Yes. Was previously tested.
 No. Does not want to know right now.
 No. Doesn't think at he/she is at risk.
 No. Doesn't trust Hep-C ALERT.
 No. Doesn't trust other provider(s).
 No. Previously tested ___pos / ___neg / ___unknown status.

THANK YOU!

Comments: _____

Hep C test result: Reactive Non-Reactive
 Indeterminate No test result _____ (reason)