

# **Ryan White Title I 1999 Medical Record Review**

**Report of Results January 2000**

**Prepared for the Miami-Dade County  
Office of Management and Budget  
Ryan White Title I Program**

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# **Ryan White Title I Results of the 1999 Medical Record Review**

## **Introduction**

Title I of the Ryan White CARE Act, through Miami-Dade County, reimburses outpatient medical care; during 1998, 11 providers received payments. A review of medical records covering care provided in 1998 and the first half of 1999 was conducted from July through September 1999 at provider locations. A chart review was done on a sample of the patients seen in the Ryan White Title I funded clinical sites.

The purpose of the review was to evaluate the care provided to people with HIV/AIDS whose care is reimbursed through Ryan White funds and to evaluate the documentation of that care at the different providers of service. The review was designed to assess the current level of care and identify areas for improvement of care.

A similar review was conducted in 1997, with all Title I medical care providers. All providers received copies of the medical record review report and the billing audit report. The review report contained detailed tables for each provider. Please refer to these for comparative data, as many of the questions asked were similar. The assessment was developed and managed by Williams, Stern & Associates under contract to Miami-Dade County. Medical Systems Review, Inc. was engaged to conduct the reviews.

## **What is in the report?**

This report consists of a written summary and summary tables from the review. Provider-specific information is also presented for the questions. In addition, each provider will receive the record review summaries for all records reviewed in their organizations.

The major findings of the review are that, in general, care meets standards. In addition, a substantial proportion of patients appear healthier based on measurement of CD4 counts at two periods of time. However, in many instances, documentation of care is haphazard, and more seriously, there were instances of sub-optimal care.

Providers are urged to review their own scores on each question and to identify areas needing further internal evaluation. In addition to their own scores, they can review other providers' as well as summary scores as benchmarks for their own performance. The report should be viewed as a tool for learning where improvements are needed and for setting up a process for making those improvements.

Appendix I contains a list of major clinical guidelines in use, as well as some educational resources. Appendix II contains detailed tables of risk by gender and race/ethnicity, as a reference. Appendix III contains tables with provider specific data. Finally, each provider will receive a copy of the individual care reviews performed at their locations.

## The Review Sample

### Sample selection

A stratified random sample of Ryan White Title I patients was selected for the 1999 medical record review. The goal was to review a ten percent sample, or about 600 records; the final number reviewed was 557, or nine percent of the total. The Ryan White Title I Service Delivery Information System (SDIS) was used to select records based on reported disease stage. Williams, Stern & Associates provided Medical Systems Review (MSR) nurses with lists of CIS numbers for each provider. Some difficulties in locating records were encountered at certain providers.

The sampling process included selecting patients over a range of HIV/AIDS status. This method was used to sample across cases by severity of condition, thereby assuring review of a range of medical care. The sample was divided into three categories of disease severity: HIV Asymptomatic (CD4 >500), HIV+ Asymptomatic (CD4 200-500), and AIDS. The cases were randomly assigned within these groups, and a list given to the nurses. The records located and reviewed differed somewhat in their proportion to the number of clients whose care was paid for by Ryan White funds. Small providers were over sampled to ensure sufficient sample sizes for the analysis. Table 1 shows the number of records reviewed for each provider compared to number of Ryan White clients served during FY 1998/1999.

	Sample		Ryan White	
	Number	Percent	Number	Percent
<b>UM/JMH</b>	117	21%	2948	47%
<b>Mercy</b>	68	12%	905	15%
<b>South Shore</b>	80	14%	796	13%
<b>Stanley</b>	38	7%	382	6%
<b>North Dade</b>	40	7%	294	5%
<b>EOFHC</b>	39	7%	192	3%
<b>PET Center</b>	48	9%	178	3%
<b>CHI</b>	41	7%	159	3%
<b>Liberty City</b>	30	5%	139	2%
<b>Borinquen</b>	29	5%	127	2%
<b>HIVUS</b>	27	5%	124	2%
<b>TOTAL</b>	557		5920	

Table 2 below provides data on the health status of the sample compared with the Ryan White medical care clients. Two categories, HIV symptomatic and asymptomatic-CD4 count undetermined, were excluded in order to focus on categories where meaningful analysis of appropriate care is possible. Symptomatic HIV, defined as an AIDS-related condition (ARC), may be masking an underlying but

unidentified condition and thus presents confusing data for a review such as this. The other excluded category lacks sufficient information as well. The remaining categories appear to fall within specific, clinically meaningful parameters of diagnosed conditions.

<b>Table 2: Disease Stage of Review Sample and Ryan White Medical Care Recipients</b>			
<b>Disease Status</b>	Sample		Ryan White FY 98/99
	FY 98/99	At Review	
HIV asymptomatic (CD4 >500)	24 %	33 %	16 %
HIV asymptomatic (CD4 200 - 500)	28 %	39 %	17 %
HIV+ Symptomatic	excluded	excluded	10 %
HIV asymptomatic CD4 unknown	excluded	excluded	15 %
AIDS	48 %	29 %	42 %

There are differences in the percentages between the Ryan White 1998/99 population and the sample at time of review. The SDIS information reflects a period prior to or during 1998 or early 1999, whereas the sample data are from the time of the review, or mid-1999. The differences cannot be taken as an indication that the entire Ryan White population is less sick than in the past, although the case mix may be changing as people enter they system earlier in the disease process. In addition, 37 percent of the sample moved to a higher CD4 count category from what was recorded in the SDIS to the latest CD4 count in their medical record. For those who were listed as having AIDS (CD4 count < 200) in the SDIS, 56 percent have a CD4 count of >200 recorded in their medical record.

### ***Characteristics of the Sample Population***

In the Table 3 below, the sample is compared to the Ryan White population receiving medical care in 1998 in terms of race/ethnicity and gender. For both categories, the comparisons between the Ryan White population and the sample are close.

### **Providers and Sites Reviewed**

Records were reviewed from 11 providers at 15 locations:, Borinquen Health Clinic, Community Health of South Dade (CHI), Equal Opportunity Family Health Center (EOFHC), HIVUS, Inc, Liberty City Health Services Center, Mercy Hospital (Albert Canas, MD, Steinhart Medical Group, Jose Arocha, MD, Donna Jacobson, DO and Camillus Health Concern), North Dade Health Services, the Prevention, Education and Treatment (PET) Center, Stanley Myers Community Health Centers, South Shore Hospital Outpatient Services, and the University of Miami/Jackson Memorial Hospital.

<b>Table 3: Characteristics of the Review Sample and Ryan White Medical Care Clients</b>
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	Sample	Ryan White
<b>Race/Ethnicity</b>		
African-American/Black	49 %	40 %
Haitian	7 %	9 %
Hispanic	39 %	34 %
White non-Hispanic	13 %	15 %
Other/Missing	2 %	1 %
<b>Gender</b>		
Male	73 %	68 %
Female	27 %	32 %

## Review Process

Three registered nurses, experienced in record review, were selected to participate in this study, including one nurse who had previously performed this particular review. A training session given by Paula Sparti, MD, held at South Shore Hospital, assured cross-reviewer consistency. Ten charts were reviewed using the new tool, and the results were discussed to further improve consistency of the review process. The reviews took place in July, August and September of 1999. The record evaluation covered 1998 through June 1999. Data collected was recorded by nurses on scannable forms and this information was scanned into an Access database programmed for scoring and reporting.

The review nurses and the staff at MSR who had contact with the sites providing care to the Ryan White recipients all commented that the cooperation at the centers was very good. They also said the contact people were all interested in the study and would welcome comments or opportunities to improve service provided.

## The Instrument

The review tool used in the 1998 Ryan White Title I review was revised by MSR (Chris Fernsler, RN and Bernadette Chambers, RN), Paula Sparti, MD, and Judith Williams, Ph.D. Efforts were made to tailor the instrument to maximize consistency across reviewers. In revising the instrument, the previous one was reviewed, and goals and objectives of the review were refined. The new review aimed at both documentation and care. In addition, the elements developed by New York State for the Ryan White Title III program were also reviewed for consistency. Fourteen questions on the review tool are standard questions asked by health plans and accrediting agencies when reviewing medical records in an ambulatory care setting. These questions were utilized to obtain a numerical *Documentation Score* for each site. The remaining fifteen data elements collected are specific to diagnostic, preventive and therapeutic care provided to the HIV/AIDS population. For these questions, a summary site score was not computed, but each separate question has a percentage of compliance. To calculate compliance, patients for whom the criterion did not apply were excluded.

## Findings

## Patient Characteristics - Disease Stage

Patients were categorized in terms of risk of progression to a more serious stage of the illness in order to assess the care being given to prevent such progression. In order to create these categories, the last two T4 lymphocyte counts were recorded along with the last viral load. The categories include viral load of 0- 400 (undetectable viral load), 401-9999 (detectable viral load), viral load of 10,000-50,000 and CD4 count less than 200 (high risk), and viral load greater than 50,000 copies and CD4 count less than 200 (very high risk). These categories are consistent with the recent literature comparing populations and treatments (Bozette, S.A. et al. 1998. The Care of HIV-Infected Adults in the United States. *The New England Journal of Medicine* Vol. 339 Number 26. December 24, 1998. 1897-1904). Note that this categorization is different than that discussed above because it takes into account both the CD4 count and the viral load.

Considerable variation exists among providers in the stage of illness of their patients ( $P^2 = 101.62$ ,  $p < .001$ ). For example, as Table 4 shows, The University of Miami/Jackson Memorial Hospital clinics have the highest risk population in terms of viral load and CD4 levels, while a much higher proportion of the population at the community and public clinics are at lower risk. Reasons for this variation are not completely clear, though it may be some organizations see patients later in the disease cycle, and some see them earlier.

	Undetectable VL		Detectable VL		High Risk		Very High Risk	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Borinquen</b>	8	28%	18	62%	1	3%	2	7%
<b>CHI</b>	11	28%	23	58%	1	3%	5	13%
<b>EOFHC</b>	16	41%	19	49%	3	8%	1	3%
<b>HIVUS</b>	10	37%	11	41%	2	7%	4	15%
<b>UM/JMH</b>	37	32%	33	28%	13	11%	33	28%
<b>Liberty City</b>	14	47%	12	40%	1	3%	3	10%
<b>Mercy</b>	25	37%	36	54%	3	4%	3	4%
<b>North Dade</b>	28	70%	11	28%	0	0%	1	3%
<b>PET Center</b>	28	58%	19	40%	1	2%	0	0%
<b>South Shore</b>	27	34%	42	53%	4	5%	7	9%
<b>Stanley Myers</b>	24	63%	11	29%	1	3%	2	5%
<b>OVERALL</b>	228	41%	235	42%	30	5%	61	11%

Risk levels were examined by gender. There are virtually no differences in the distribution into risk groups for males and females; in other words, the same percentage fall into each category. When race/ethnicity is looked at in terms of risk level, similar findings prevail. Haitians fall more into the lowest risk level (undetectable viral load), and have a slightly higher proportion in the highest risk category. Tables 5 and 6 show the data.

	Undetectable VL		Detectable VL		High Risk		Very High Risk	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Males</b>	166	41%	175	43%	19	5%	45	11%
<b>Females</b>	62	42%	59	40%	10	7%	16	11%

<b>OVERALL</b>	228	41%	234	42%	29	5%	61	11%
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( $P^2 = 1.2$  Differences NOT significant.)

<b>Table 6: Patients at Risk for Disease Progression by Race/Ethnicity</b>								
	<b>Undetectable VL</b>		<b>Detectable VL</b>		<b>High Risk</b>		<b>Very High Risk</b>	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>African American</b>	83	39%	94	44%	10	5%	27	13%
<b>Haitian</b>	22	54%	11	27%	4	10%	4	10%
<b>Hispanic</b>	91	42%	91	42%	10	5%	24	11%
<b>White</b>	28	40%	32	45%	6	9%	5	7%
<b>OVERALL</b>	228	41%	234	42%	29	5%	61	11%

( $P^2 = 9.1$  Differences NOT significant.)

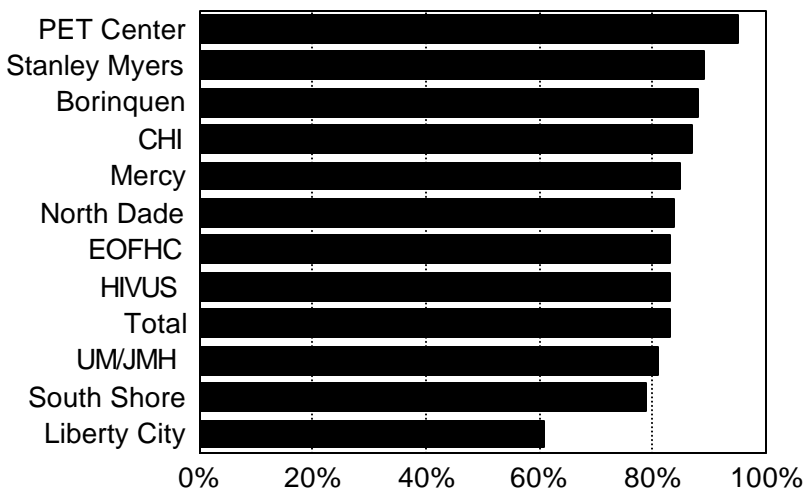
### **Documentation**

Table 7 shows the level of completion of the documentation items reviewed, averaged across all providers; separate tables for each provider are in Appendix 2. ( See below in the Patient Care Section for an explanation of column headings in Table 7.) The overall documentation score, computed from the 14 documentation questions, is 83 percent. Significant differences in level of documentation do appear among providers ( $F = 2.66, p < .001$ ). The range of documentation scores by provider showed a high of 95 percent and a low of 61 percent. Figure 1 illustrates the range of scores.

Differences in documentation were reviewed by patient characteristics. There was no difference in documentation by disease stage ( $F=1.29, p = .276$  - not significant), but there were significant differences by gender and ( $t = 2.18, p = .03$ ) and race/ ethnicity ( $F = 9.2, p < .001$ ).

Overall, documentation was better for men than women (84% vs. 81%). Race/ ethnicity differences were linked to differences in

**Figure 1: Documentation Score by Provider**



<b>Table 7: Documentation Questions, All Providers</b>	<b>Number</b>	<b>Percent</b>
1. Does the record contain biographical data?	557	85%
2. Are allergies identified and prominently recorded?	557	84%
3. Does the record contain a problem list?	557	73%
4. Is the reason for the visit documented at each encounter?	557	97%
5. Does the record contain initial history and physical?	557	83%
6. Is social history addressed?	557	70%
7. Is there evidence of a complete physical examination performed in 1998 to present?	557	94%
8. Is there evidence of a Pap smear being performed in 1998 to present?	156	42%
9. Is there evidence of a rectal examination being performed in 1998 to present?	555	29%
10. Are visit notes in SOAP format?	557	96%
11. Is the plan consistent with the objective assessment?	557	97%
25. Are consults with a specialist timely and with appropriate documentation reason?	207	99%
26. Do all consultation reports and laboratory reports reflect primary care review?	551	98%
27. Are appropriate follow-up plans documented?	554	97%
Overall Documentation Score	557	83%

documentation by provider. Clients are not distributed evenly across providers by ethnicity, and thus the differences are more provider-related. After accounting for provider differences in documentation, the race/ethnicity difference in documentation disappeared: (ethnic:  $F = 1.2$ ,  $p = .3$ ; provider:  $F = 11.3$ ,  $p < .001$ ).

Across providers and patient characteristics, there appears to be opportunity for improvement in documentation. Among the areas in Table 7 suggesting further attention are: completion of problem lists (73% of the time), completion of social history that includes smoking, alcohol use, substance abuse and sexual history (70% of the time), documentation of Pap tests (42% of the time), and documentation of rectal exams (29% of the time). Documentation of follow-up plans is excellent overall (97% of the time), with 11 of the 15 review sites achieving 100 percent. Of concern is one center that documents follow-up plans only 63 percent of the time.

Many activities might occur during a visit, but may not all be documented. However, the only way to assure continuity and comprehensiveness of care is to document the activities. Documentation also can affect the quality and continuity of care provided to patients without a regular provider. For example, documenting a problem list can be very helpful for transient patients without a single, complete medical history or chart.

The lack of documentation makes assessments of quality of care more difficult. For some providers, the reviewers concluded that although documentation is poor, the standard of care appears to be adequate. However, many external reviewers for large government programs state that if a procedure is not documented it is not considered done. Indeed, this is the standard of measurement in most hospitals and should be extended to outpatient care as well.

### ***Patient Care***

The remaining 15 questions were designed to assess certain aspects of the care provided to Ryan White clients. The elements are based on widely agreed-on standards of care. Table 8 reports results across providers for the items; separate tables for each provider are in Appendix 3. For purposes of reporting results, the care questions were grouped into four categories: Therapy (questions 20 - 23), Immunizations (questions 12a, b, and c, c), Tuberculosis Screening and Prophylaxis (questions 13 - 15), Laboratory Tests (questions 16 - 18). For the final question, concerning risk and AZT counseling to pregnant women, the sample size was only three patients, two out of three showed evidence of being counseled. The sections on immunization and laboratory studies are calculated for the full sample size. Positive PPD questions were calculated only on known results of PPD. The sample size for the therapy questions is affected by patient variables.

Because not all questions are applicable to all clients, the numbers reported in Tables 7 and 8 may be confusing at first glance. "Number in sample" is the number of client records that were reviewed; "applicable cases" is the number of persons to whom the question applies, for example, in Question 13, the applicable cases for a PPD is 529 rather than 557 because once a PPD is positive it is not given again; "number yes" is the number of positive responses to the question; for example in Question 13, there was evidence of a PPD for 116 persons or 22 percent of the "applicable cases." "Percent in compliance" refers to the percentage of applicable cases for whom the answer to the question was "yes." It is important to note that when the number of applicable cases is small, 1 or 2 cases will have a large effect on the percentage; care should be used in interpreting these.

<b>Table 8: Care Questions All Providers</b>	<b>Number</b>	<b>Percent</b>
12a. Are immunizations documented: Pneumovax?	557	17%
12b. Are immunizations documented: Hepatitis B?	557	15%
12c. Are immunizations documented: Influenza vaccine?	557	18%
13. Is there evidence of a PPD in 1998 to present?	529	22%
14. If PPD is positive, is the patient receiving appropriate prophylaxis?	30	63%
15. Is there evidence of a chest x-ray if PPD is positive?	30	57%
16. Are baseline diagnostic tests complete?	553	18%
17. Are routine laboratory tests performed every three months for patients stable on anti-retroviral therapy and in patients not on anti-retroviral therapy?	557	28%
18. If laboratory tests are performed more than every three months is the reason documented?	172	66%
19. If CD4 count less than 500 and viral load greater than 10,000 is the patient on anti-retroviral therapy?	325	94%
20. If patient is on anti-retroviral medication, is combination therapy prescribed?	510	91%
21. If the patient has an opportunistic infection (OI) is the patient on appropriate therapy?	111	95%
22. If the patient has a CD4 count less than 200 or history of PCP is the patient on PCP prophylaxis?	179	93%
23. If the patient has a CD4 count less than 50 or history of MAC is the patient on MAC prophylaxis?	62	85%
24. Are pregnant patients counseled regarding risk of transmission and anti-retroviral therapy?	3	67%
Overall Care Score	557	39%

## **Therapy**

As shown in Tables 8 and 9, the review indicated that combination antiretroviral therapy is started 91 percent of the time when the CD4 count is less than 500 and viral load is greater than 10,000. The review also found that prophylaxis for PCP and MAC is instituted 93 percent and 85 percent of the time when appropriate, and that 95 percent of the time, treatment of opportunistic infections is appropriate.

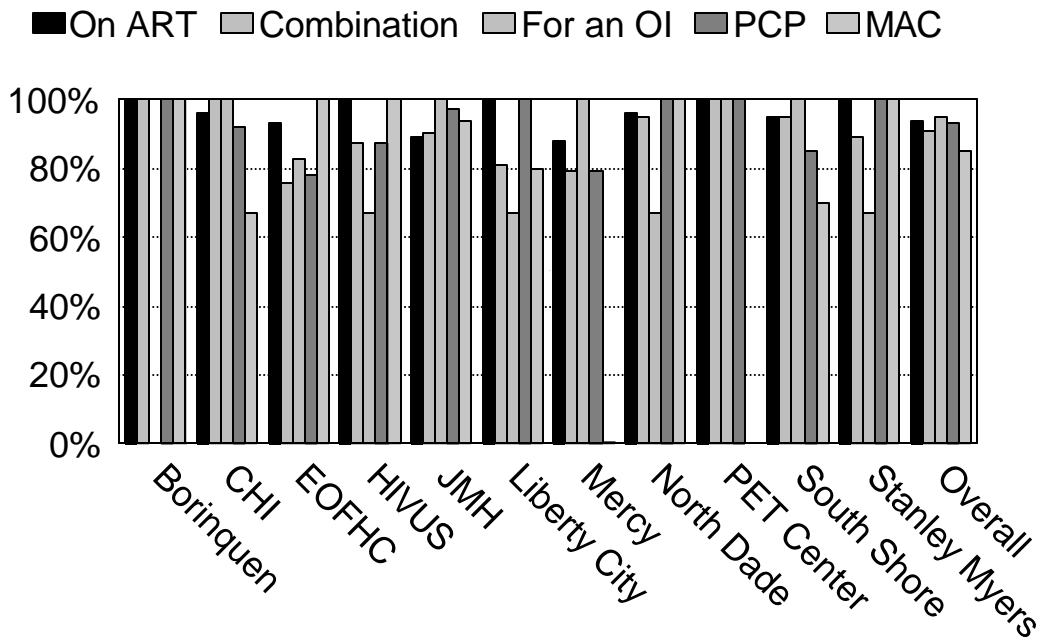
	Range among Providers	Average Score
CD4<500 & VL>10,000 on ART	88% to 100%	94%
Combination therapy prescribed	76% to 100%	91%
Appropriate therapy for OI	67% to 100%	95%
PCP prophylaxis	78% to 100%	93%
MAC prophylaxis	67% to 100%	85%

Figure 2 compares the percentage compliance by provider. There were significant differences for combination therapy prescribed, appropriate therapy for opportunistic infection, and MAC prophylaxis ( $P^2$ s = 34.1, 26.3, and 18.2, all  $p < .05$ ). As shown above, the use of appropriate therapies was generally high and there were no significant differences in their use across stages of the disease except for MAC prophylaxis, which averaged 80 percent for those at high risk (CD4 < 200 & viral load > 50,000); for the other disease categories, compliance was 90 percent or higher. The only differences in therapies by gender or race/ethnicity were for the use of anti-retroviral medications. See below for a discussion of this.

### ***Antiretroviral Medications***

As stated earlier, the review found that 94 percent of patients with CD4 counts of under 500 and viral load greater than 10,000 were appropriately on antiretroviral therapy. And 90 percent of those were on combination therapy. Thus, the results indicate that, in terms of therapy in symptomatic and more compromised patients the standard of care at least for antiretroviral therapy is consistently met. Since recent national studies have found that race/ethnicity and gender appear to influence receipt of these medications, a similar analysis was done for this project. Males were more likely to receive antiretrovirals than were women (95% vs. 89%;  $P^2 = 4.0$ ,  $p = .04$ ), but there was no difference in receipt of combination therapy. A similar finding held for race/ethnicity, where Hispanics and non-

**Figure 2: Therapy**  
**Percent Compliance by Provider**



Hispanic whites were more likely than African Americans and Haitians to receive antiretroviral therapy (98% vs. 90%;  $P_2 = 9.4$ ,  $p = .02$ ), but there were no differences in combination therapy.

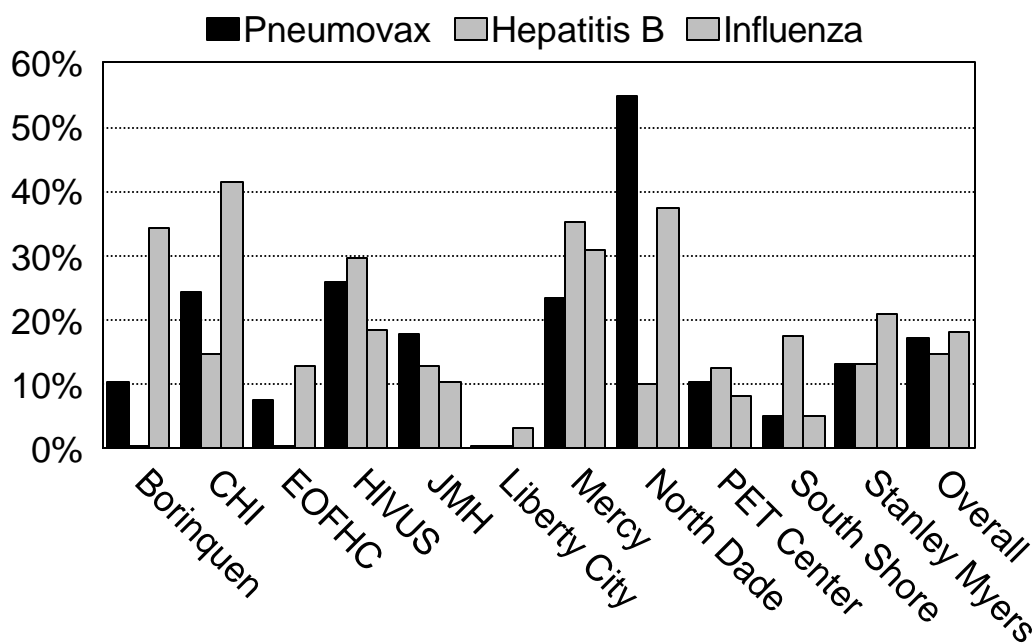
In addition to questions on combination therapy, the review attempted to record medications, particularly Protease Inhibitors. The review nurses were provided a list of those antiretrovirals, and they were asked to record them when they identified a patient whose viral load was not undetectable. The intent was to identify patients who have high viral loads and may not be on optimum therapy. The effort was not completely successful, and thus is not reported here. In some instances insufficient information was available in the record, and in others the reviewers ran out of time to search for them. Since we could not be confident of the Protease Inhibitor information in all records, none are reported here. This information is important, however, and future efforts will be made to obtain improved information. Each provider is receiving the information gathered for every patient reviewed.

***Immunizations***

Poor compliance scores were found for immunizations. The Hepatitis B immunization rate was affected by missing lab reports. A positive titer was used to give a “yes” answer. It was noted on a number of occasions that a titer was ordered or drawn but there was no result. There is wide variation among sites in the immunization (each of the Chi Squared statistics were significant at a p-level of less than .00001). Figure 3 depicts the provider differences in the use of immunizations. The rate of immunizations was also examined by disease stage, gender, and race/ethnicity. The only significant difference observed was for Pneumovax where the immunization rates were 11 percent for Hispanics, 19 percent for African Americans, 22 percent for whites, and 29 percent for Haitians ( $P_2 = 12.1$ ,  $p = .007$ ). It is not clear why this difference exists, but it is not related to provider differences.

<b>Table 9: Immunizations</b>		
	Range among Providers	Average Score
Pneumovax	0% to 55%	17%
Hepatitis B	0% to 35%	15%
Influenza	3% to 41%	18%

**Figure 3: Immunizations  
Percent Compliance by Provider**



***Tuberculosis Screening and Prophylaxis***

The percentage of clients who had evidence of a PPD in the last 18 months was low (22 %). There were no differences by disease stage, race/ethnicity, or gender in whether a client was given a PPD. Provider differences are shown in Figure 4. There was a significant difference between providers in their rates of PPD screening ( $P_2 = 51.3, p < .00001$ ). Of those who received a PPD, 30 had positive PPD (26 %). This number is too low to allow for testing PPD prophylaxis or Chest X-ray provision by client characteristics.

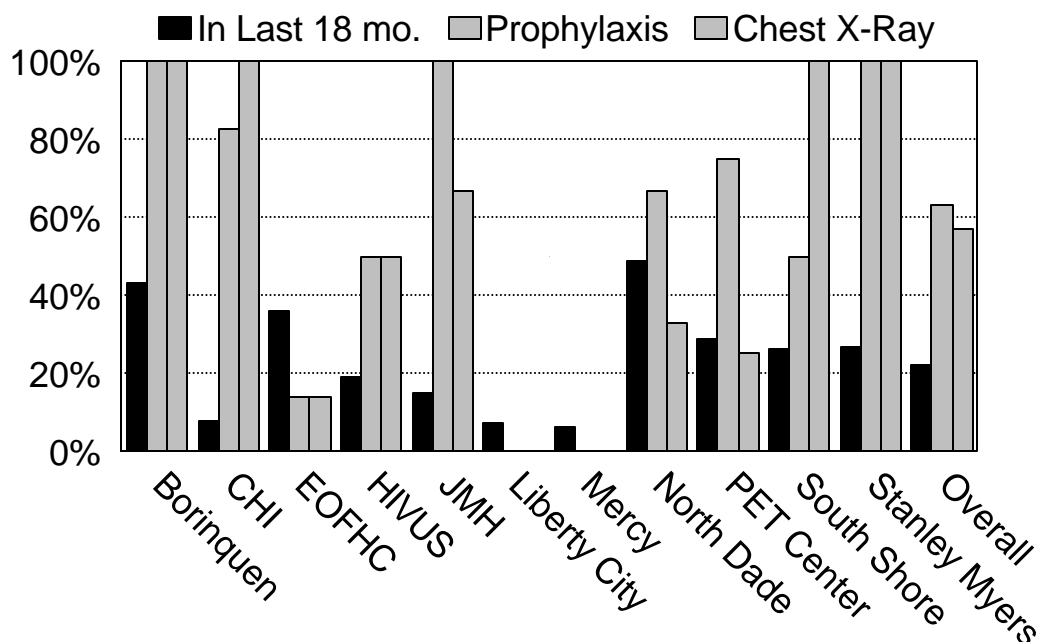
**Table 10: Tuberculosis Screening and Prophylaxis**

	Range among Providers	Average Score
PPD in last 18 Months *	6% to 49%	22%
+ PPD appropriate prophylaxis	14% to 100%	63%
+ PPD chest X-ray performed	14% to 100%	57%

\* If PPD planted but not read it is scored as not done.

### Laboratory Tests

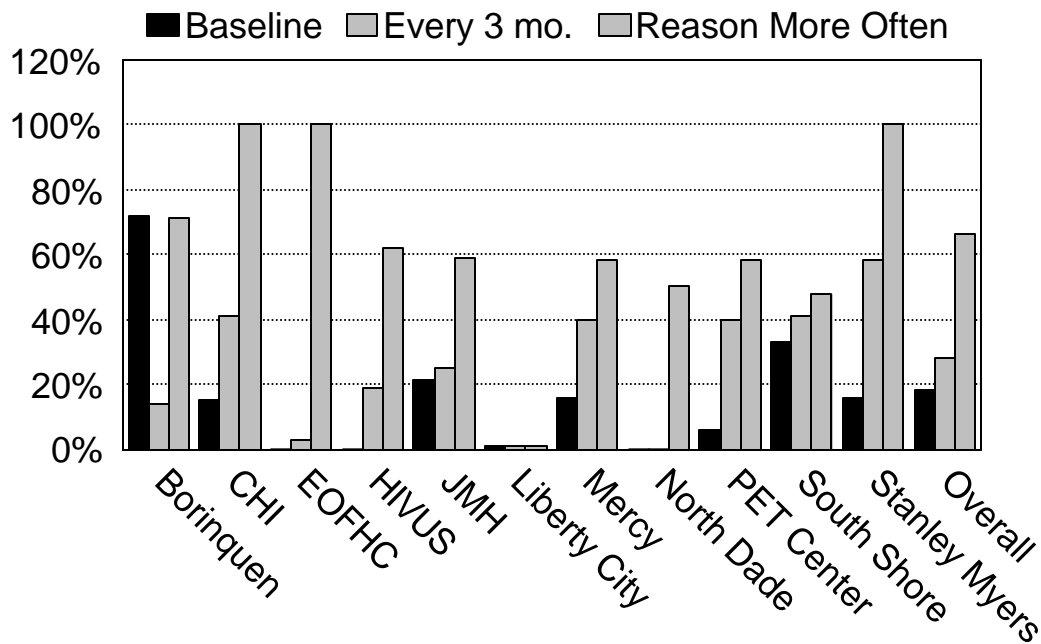
Figure 4: Tuberculosis Screening & Prophylaxis  
Percent Compliance by Provider



There is wide variation among sites in the lab areas (All Chi Squares were significant at a p-level that was less than .005). Figure 5 depicts provider differences in this area. It was not always easy to determine if the lab study was not ordered, not performed as ordered or not reported. With respect to the baseline studies, two points should be made. The answer was “no” if one of the base panel was missing or if all were missing. Secondly, at the hospital centers, many patients become outpatients after an inpatient stay and it may be that some of the baseline studies are in the inpatient record, but these were not reviewed.

<b>Table 11: Laboratory Tests</b>	Range among Providers	Average Score
Complete baseline diagnostics	0% to 72%	18%
Routine labs every 3 months	0% to 58%	28%
Reason for labs more often	0% to 100%	66%

**Figure 5: Laboratory Tests  
Percent Compliance by Provider**



Diagnostic tests were found to be insufficiently recorded. The lack of data on tests and results hinders continuity of care, particularly if more than one practitioner is involved, or if time has elapsed. Every medical care standard of practice indicates the expectation that baseline tests be present and recorded in the patient's chart. Similarly, for patients on antiretroviral therapy there is an expectation that routine follow-up labs are performed routinely. It appears from this review that this does not occur with regularity, as is reported in Table 11 above.

***Adherence to Treatments***

Close to 10 percent of patients reviewed were documented to be non-compliant with medication and visit regimens. Additionally, many more had missed appointments and there was evidence of large gaps in time between visits. At five sites, reviewers made note of labs being ordered but not available in the medical records. Thirty-eight percent of patients at one site received intravenous Vitamin C every two weeks for no clear reasons.

**Conclusions and Recommendations**

The reviews demonstrated a standard of care that generally is quite good and consistent. There are, however, numerous areas that can be improved, including: annual pap smear, routine rectal exams, placement of PPD and immunizations. Hepatitis B immunization is particularly important, because this is a very high risk population for acquiring Hepatitis B, and the disease will further complicate their clinical course.

Some of the issues identified in the 1997 record review continue to be issues. These concerns include immunizations, social history, inconsistencies regarding medications, and TB screening. In addition, the general issue of documentation was and continues to be a major concern. The 1997 reviewers strongly recommended utilization of periodic reviews by providers themselves as well as external reviewers using standardized medical record survey guidelines.

**1. Medical treatments should be optimized.**

A significant portion of Ryan White patients appear to be at risk for progression to a more severe form of the disease, and even death. There may be many reasons for this, including drug resistance, patients seeking care at the end stage, or patient inability to follow a regimen. However, all providers who have patients at high risk for progression (high viral loads) may wish to review the care of individual patients to see if there are means for optimizing treatments.

**2. Providers should know and utilize clinical Guidelines**

Several sets of clinical guidelines for HIV/AIDS care exist. In addition, the Miami-Dade HIV/AIDS Partnership is considering adopting a locally developed guideline for use by any physician in Miami-Dade County. Ryan White Title I providers are required by contract to select a set of guidelines to use in their care of patients paid for with Ryan White funds. Guidelines are only that, and that physicians are free to modify to meet individual patient needs; however they provide the physician with at least a consensus opinion for physicians to use in choosing care. Anecdotal evidence as well as the results of this review indicate that some providers do not have access to clinical guidelines, or are not consistently using them. Not all the care documented here is consistent with guidelines. It may be hard to justify care that is below a consensus standard in this fast-changing area.

**3. Documentation of care needs improvement.**

Documentation of care is critically important to the quality of care rendered and to the continuity of care. The patient record is an important means of communication among providers and of patient care follow-up. Quality assurance activities teach that “if it isn’t documented it isn’t done.” In most programs, including Ryan White Title I, reimbursement depends on being able to demonstrate that things were done. Providers, including the administrators of organizations serving Ryan White clients, should find ways to improve the level of documentation in their patient records and monitor the documentation. Then they can monitor the care provided.

**4. Provider education is needed to optimize treatment.**

In order to improve documentation, increase certain treatments and optimize antiretroviral therapy, ongoing provider education regarding medication compliance and the prevention of drug resistance is needed. Providers, particularly administrators, should find ways to encourage medical staff to obtain continuing education on the latest treatment protocols, particularly in the fast-moving area of drug therapies. Use of guidelines, particularly those that are updated on the Internet, would be of benefit as well.

**5. Quality assurance and improvement activities should be integral in the organization.**

Physicians and other providers, as well as administrators, should utilize various means of monitoring and improving quality. Self-review within the organization is essential. Patient records, or at least a sample, should be routinely reviewed for documentation and quality of care (i.e. state-of-the-art therapies and treatments). Organizations may create their own record review protocols based on clinical practice guidelines and standards, or they may use a pre-existing instrument. For example, the New York State Department of Health, under contract to the Health Resources and Services Administration (HRSA), has created a computer-based medical record review protocol and sampling procedure as a demonstration tool. Florida may soon be a site (Title III providers); however, the tool is currently available for use. Many of the questions on that tool are included in the protocol being reported on here.

Peer review and self-review are necessary components of medical care quality maintenance and improvement and are recommended. If other reviewers are used, then feedback sessions are critical to being able to utilize the information collected. These should not be seen as punitive activities, but ways to optimize patient care.

**5. Patient and provider education regarding medication adherence and the prevention of drug resistance is needed.**

It is well known that medication regimens for the treatment of HIV/AIDS can be complicated, and that many patients have difficulty adhering to these regimens. Missed doctor's appointments are a major challenge to be addressed by providers. In addition, maximum effort by all medical professionals as well as others is needed to assist the patient in adherence. Some providers have employed adherence counselors and pharmacy professionals for this purpose.

During the course of the medical record review, some clinic staff asked the reviewers for information on social services, including case management services. This indicates an insufficient amount of information, communication and sharing services within organizations, as some of the organizations receive case management funds. Case managers can also be used for adherence counseling and following up with patients who miss appointments.

The Ryan White Title I program reimburses physician time for adherence counseling. Providers must be able to teach their patients not only the need for adherence, but methods of doing so. The Florida Department of Health has been working to develop guidelines for teaching about adherence, and their documents may be useful. Some providers have also developed their own materials and may be willing to share them.

## **Appendix I: Resources**

### **Clinical Guidelines**

Guidelines for the Use of Antiretroviral Agents in HIV-Infected Adults and Adolescents. USPHS. January 28, 2000.

Guidelines for for the Use of Antiretroviral Agents Pediatric HIV Infection. USPHS. January 7, 2000.

Guidelines for the Prevention of Opportunistic Infections in Persons Infected with Human Immunodeficiency Virus. USPHS/IDSA. Draft #5, May 4, 1999.

U.S. Public Health Service Task Force Recommendations for Use of Antiretroviral Drugs During Pregnancy for Maternal Health and Reduction of Perinatal Transmission of Human Immunodeficiency Virus Type 1 in the United States.

AIDS Institute, New York State Department of Health: Criteria for the Medical Care of Adults With HIV Infection.

AIDS Institute, New York State Department of Health: Criteria for the Medical Care of Children and Adolescents With HIV Infection.

New York State Department of Health Guidelines available from

Director, HIV Educational Materials  
AIDS Institute at New York State Department of Health  
5 Penn Plaza, First Floor  
New York, NY 10001                      Fax: 212 613-4996

University of Florida. HIV/AIDS Primary Care Guide, 1999 Edition.

Florida AIDS Education and Training Center  
University of Florida  
P.O. Box 100177  
Gainesville, FL 32610-0177                      Phone 352-395-8037    Email AIDS@hpe.ufl.edu

John G. Bartlett, M.D. 1999 Medical Management of HIV Infection

Ordering: 1-800-787-1254

### **Adherence**

North Dade Health Center/Jackson Memorial Hospital: AIDS Drug Assistance Program/Ryan White Adherence Program.

Phone 305- 620-3736      Fax 305-624-5296

AIDS Institute, New York State Department of Health: Treatment Adherence for People with HIV Infection.

Ordering: See above under Treatment Guidelines

## **Websites**

USDHHS website for clinical guidelines updates, other information: HIVATIS.

University of California at San Francisco website for guidelines, other information: HIVInSite

The Johns Hopkins University: www.hopkins-aids.edu

Miami-Dade County HIV/AIDS Partnership: AIDSNET.org

## **Educational Resources**

Florida AIDS Education and Training Center  
Shed Boren, Mercy Hospital SIS 305- 285-2994  
Corklin Steinhart, M.D., Ph.D., Medical Director

University of Miami Targeted Provider Education Demonstration Program  
Training for non-clinical personnel

Diana Travieso-Palow. M.P.H., M.S., R.N.  
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