



HIV CLINIC CAPACITY AND MEDICAL WORKFORCE CHALLENGES: RESULTS OF A SURVEY OF RYAN WHITE PART C-FUNDED PROGRAMS

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OBJECTIVES: A survey of Ryan White Part C Clinics was conducted to evaluate clinic capacity and workforce challenges at clinics that disproportionately provide care to uninsured and underinsured patients with HIV disease.

METHODS: A 32 question self-administered survey was emailed to 363 Ryan White Part C Programs to collect basic clinic information, information on number of clients and clinic capacity, HIV practice characteristics, and issues related to recruitment and retention of clinical staff.

RESULTS: More than 70% of clinics reported increasing numbers of patients in 2007, with a median increase of 17%. Higher numbers of clients and longer appointment waiting times were seen by providers in the Southeast. Reimbursement and funding ranked highest among the challenges facing clinics.

CONCLUSIONS: Efforts to attract providers to HIV medicine and reimbursement levels that support the cost of HIV care are urgently needed.

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INTRODUCTION

Ryan White Part C (formerly Title III) funded programs serve low-income patients with HIV/AIDS and complex medical needs, including complications of advanced HIV disease, high rates of hepatitis C co-infection, serious mental illness, and substance use. Funding for Ryan White Part C increased by 2.4% from 2002 to 2008; in contrast, the number of patients that Part C served during that period increased by approximately 39.3% [Figure 1]¹⁻³. Previous studies have documented poor reimbursement for HIV care relative to the cost of care⁴. Reimbursement for the primary care services, which comprises much of HIV care, also has been cited as a major factor contributing to the shortage of primary care providers generally⁵⁻⁷. Persons with HIV disease who are diagnosed late (e.g. CD4 count < 200 cells/ul) have higher mortality rates, more complications of disease, and less tolerance of antiretroviral therapy⁸. Moreover, more than 50% of new HIV transmissions in the United States originate from HIV-infected individuals who do not know they are infected⁹. As a result, major efforts are underway to expand routine HIV testing in medical settings to identify the estimated 21% of people with HIV disease in the United States who are unaware of their HIV infection. The initiatives were spurred by recommendations released by the Centers for Disease Control and Prevention (CDC) in fall 2006 urging clinicians to test everyone between the ages of 13 and 64 for HIV infection as a routine component of medical care¹⁰. As states and institutions begin to implement routine HIV testing on a broader scale, concerns have been raised about the ability of the HIV health care system to meet the demand for care due to health care funding constraints and emerging shortages of qualified HIV medical providers. A survey of Ryan White Part C funded programs was conducted in the summer of 2008 to assess the degree to which HIV clinics faced HIV medical workforce shortages, with the goal to evaluate the capacity of the HIV care system to provide care to newly diagnosed individuals identified through routine HIV testing programs.

METHODS

A cross-sectional survey of Ryan White Part C Grantees was developed, piloted and conducted with input from the HIV/AIDS Bureau at the Health Resources and Services Administration, faculty from the George Washington University School of Public Health and Health Services, Department of Prevention and Community Health and Ryan White medical providers. An online tool, SurveyMonkey, was used to collect responses on a 32 question self-administered survey collecting basic clinic information, number of clients and clinic capacity, HIV practice characteristics, and issues related to recruitment and retention of clinical staff. The survey was emailed to 363 Ryan White Part C Programs on June 30th, 2008 (see appendix for the survey).

Following the initial email, two reminder emails were sent at one week intervals, followed by a traditional (U.S. Post)

mailing to nonresponsive programs. In addition, nonresponsive programs were called to encourage participation. Respondents had the option to complete and return the survey in paper form via mail or fax and all paper responses were entered into the online survey site.

All data were reviewed for missing elements and possible duplication. Missing or incomplete data that could be determined were replaced (e.g. zero values for missing values that were intended to be zero) and duplicate entries removed. Six duplicate responses were removed from the final dataset: two with complete or near complete responses, and four with only clinic and zip code information, for which completed surveys with the same clinic and zip codes had been received.

Frequencies of responses, means, medians and confidence intervals of survey data were calculated for survey questions using the SAS System for Windows v8.02. All charts and graphs were created using Microsoft Excel.

RESULTS

Description of Clinics that Responded

Of the 363 Ryan White Part C grantees, 246 clinics responded to the survey (68% response rate). Basic clinic characteristics and a description of the patient population are reported in Table 1. The majority (60%) of responding clinics were in urban, metropolitan areas (population greater than 100,000). Thirty-three percent were in urban, non-metropolitan areas (population between 2,500 and 100,000) and 6% of responses came from clinics in rural areas.

The types of clinics that responded varied, with the majority of responses coming from publicly funded community health centers (38%), followed by hospitals/academic medical centers (27%), community based organizations (18%), and health departments (11%).

The majority of responses were from program administrators for their respective clinics (55%), medical directors (22%) or persons who held some other role at the clinic. To assess the age of the Part C clinic respondents, respondents were asked their year of birth and numbers of years at the clinic. The mean age of respondents was 48 years old and the mean length of time at the clinic was 9 years.

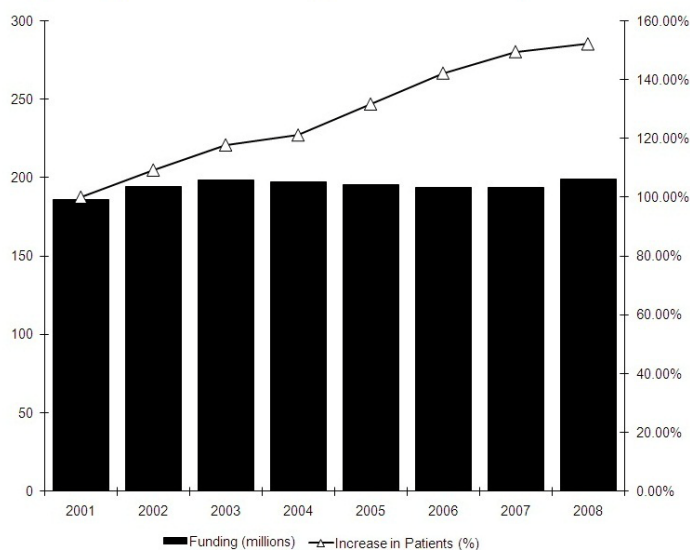
Description of Clinic Patient Population

Most clinics reported that more than one third of patients seen in the Part C clinics were uninsured (median=35% of patients uninsured). The remaining clinic patients were insured via Medicaid (median=30% had Medicaid), Medicare (median=12% had Medicare), private insurance (8% privately insured), or dually Medicaid-Medicare eligible (median= 5% dually Medicaid-Medicare eligible). Clinics also reported high percentages of co-morbidities, with 35% of patients having a serious mental illness, 30% having a substance abuse disorder, and 20% having hepatitis B or C. In 2007, the



median percentage of clients that had an AIDS diagnosis when they entered care was 39%.

Figure 1: Ryan White Part C Funding and Patient Increases, 2001-2008



General Clinic Capacity

To assess clinical capacity for caring for persons with HIV disease, survey respondents were asked to provide the total numbers of HIV patients seen in their clinic and the total number of new HIV patients in 2007. Number of patients varied widely, with the median number of patients being 398 (range 25-4,395), the median number of new HIV patients seen in 2007 was 64 (range 5-687), and the median percent of total patients that were new patients in 2007 was 17%.

More than 70% of clinics reported increasing numbers of patients over the last three years. Of the clinics reporting an increase, the median increase in percentage of patients from 2004 to 2007 was 17.50% (range 2%-330%). Fewer clinics reported decreasing numbers of patients over the previous three years ($n=14$) and the percent change reported by clinics reporting decreases was also smaller (median=12%, range 1-50%). The number of new HIV patients clinics would be able to absorb, assuming no change in current funding levels, was 16.69% (range 2.29-52.29).

General Workforce Responses

The median numbers of physicians and nurse practitioners (NP) in FTEs that provide services in the clinics were 1.0 and 0.24 respectively. Fewer than half of clinics responding to the survey reported having physician assistants (PA) FTEs on staff and the median number of PAs was 0. Of the clinics that reported the average caseload, the median caseload for physicians was 178 patients/physician ($n=168$). The median caseload for nurse practitioners was 150 patients/NP ($n=99$), and the median caseload for physician assistants was 140 patients/PA ($n=45$).

Clinics reported that the average waiting time for an appointment for a newly diagnosed patient was 1.47 weeks

(range 0-8 weeks). The average waiting time for patients who were new to the clinic but not newly diagnosed was 1.81 weeks (range 0-8 weeks). The average waiting time for scheduling an appointment for patients who were returning to the clinic was 2.35 weeks (range 0-12 weeks). It is important to note that the survey did not distinguish between returning patients who request an appointment and patients returning for routinely scheduled appointments.

The length of appointment times for new and returning patients varied widely across responses. The median appointment time for a new patient to the clinic was 60 minutes (range 15-240). Median appointment times for returning patients were shorter (30 minutes, range 15-180 minutes).

Regional Analysis

Survey responses for total number of HIV patients seen in 2007, ability to absorb new patients, and average caseload by provider type were stratified by region [Table 2]. The regional breakdown was based on the HRSA-defined regions and was grouped geographically into the Northeast, Southeast, Central and West. Overall, approximately equal number of responses came from the Northeast and Southeast (88 and 86 respectively) while fewer responses came from the Central region (31) and West (41).

Regional Clinic Capacity Responses

The median number of patients seen in clinics was highest in the Southeast at 549, followed by the Northeast with 330 patients. The median for the Southeast was almost double the number of patients seen in clinics in the Central and West regions (median 260, 265 patients respectively).

Waiting times for clinic appointments for returning patients, new but not newly diagnosed patients, and newly diagnosed patients were assessed by region. The average waiting times for appointments were higher for all three categories of patients in the Southeast (2.72 weeks for returning patients, 2.06 weeks for new patients, and 1.73 weeks for newly diagnosed patients). The shortest waiting periods for newly diagnosed patients were in the clinics in the Central and Northeast regions (1.25, 1.27 weeks respectively). The shortest average waiting time for scheduling appointments for new patients was in the Central region (1.43 weeks) and the shortest average waiting time for scheduling appointments for returning patients was in the Northeast region (1.92 weeks).

Regional Workforce Responses

Clinics in the Northeast reported the highest numbers of physicians in terms of FTEs on staff (median=2.0). Conversely, the same clinics in the Northeast reported the lowest ratio of patients to clinician for all provider types in the regional analysis (median=125 patients per physician, 100 patients per physician assistant, 100 patients per nurse practitioner). The highest ratios of patients to clinicians were reported by clinics in the Southeast (median=216 patients per



Table 1: Characteristics of Clinics Responding to Survey			
Clinic Locale	N	%	
Urban Metropolitan Area (population greater than 100,000)	148	60.41	
Urban Non-Metropolitan Area (population between 2,500 and 100,000)	82	33.47	
Rural Area (population less than 2,500)	15	6.12	
Type of Clinic			
Hospital/academic medical center	60	27.15	
Publicly-funded CHC	85	38.46	
Community-based organization (other than CHC)	39	17.65	
Health department	24	10.86	
Other	13	5.88	
Response rate for survey			
Northeast (HRSA Regions 1-3)	88	35.77	
Southeast (HRSA Regions 4, 6)	86	34.96	
Central (HRSA Regions 5,7,8)	31	12.6	
West (HRSA Regions 9-10)	41	16.67	
Respondent's role at the clinic			
Medical Director	42	22.11	
Program Administrator	105	55.26	
Other	43	22.63	
	N	Mean 95% C.I.	Median Range
Respondents			
Average age of respondent	175	47.66 (46.25-49.07)	49 (25-76)
Average length of time at the clinic	189	8.85 (7.99-9.7)	8 (0-32)
Insurance Status of Clinic Clients			
Medicaid	204	32.37 (29.62-35.12)	30 (0-90)
Medicare	204	13.12 (11.92-14.32)	12 (0-40)
Dual Medicaid and Medicare	202	8.15 (6.89-9.41)	5 (0-62)
Privately Insured	204	11.70 (10.04-13.36)	8 (0-62)
Uninsured	205	35.06 (31.77-38.35)	35 (0-100)
Co-Morbidities of Clinic Clients			
Serious Mental Illness	195	37.57 (34.61-40.54)	35 (0-89)
Substance Abuse Disorder	194	35.31 (32.38-38.23)	30 (0-98)
Hepatitis B or C	187	24.71 (22.41-27.01)	20 (0-98)
AIDS diagnosis at time entering care	186	36.68 (33.67-39.69)	39 (0-90)
Number of Clinic Clients			
Total Number of HIV Patients in 2007	209	646.37 (547.79-744.95)	398 (25-4395)
Number of New HIV Patients in 2007	205	110.86 (92.94-128.79)	64 (5-687)



physician, median=200 patients per physician assistant) and Western regions (mean=175 patients per nurse practitioner). Among clinics in the Southeast, the median numbers of physicians and nurse practitioners were 1.0 and 0.8 respectively.

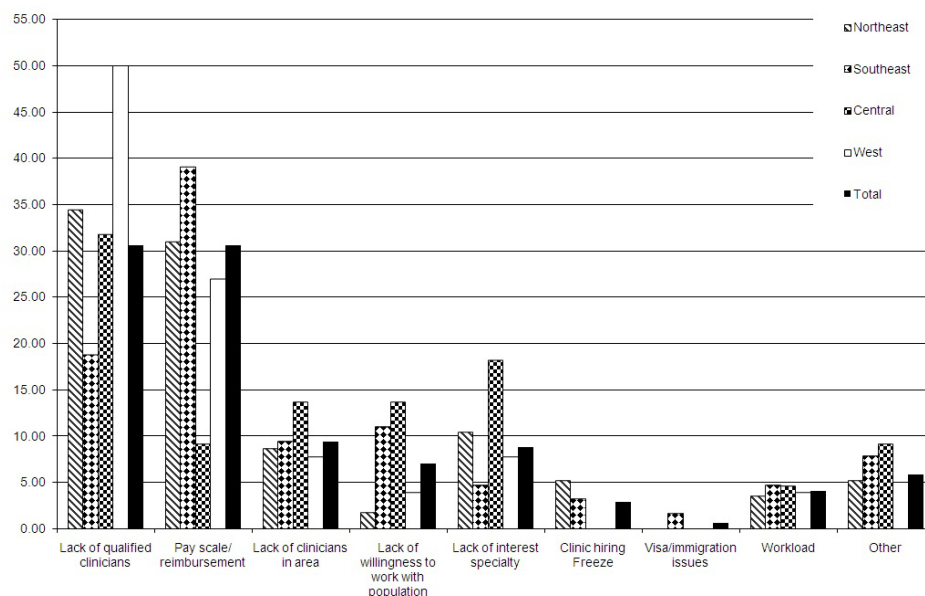
The issues that clinics face when recruiting and retaining clinical staff were also examined by region [Figure 2]. Overall, two major reasons emerged from the survey for difficulty in recruiting clinical staff: pay scale and lack of qualified clinicians with sufficient HIV expertise.

“Pay scale/reimbursement” was cited as the major barrier for programs in the Southeast (39% of respondents) and the second largest barrier in the Northeast (31% of respondents) and West (27% of respondents). Lack of qualified clinicians was the major reason cited in the Northeast, Central and Western regions (34%, 32%, 50% of respondents respectively). Lack of funding was the number one barrier to retaining clinical staff with it being the most common retention challenge reported in the Southeast, Northeast and West (31%, 25%, 29% respectively) followed closely by pay scale/reimbursement (24, 23 and 29% respectively). The number one reason cited in the Central region was indirect care demands on providers (e.g. paperwork) (30%).

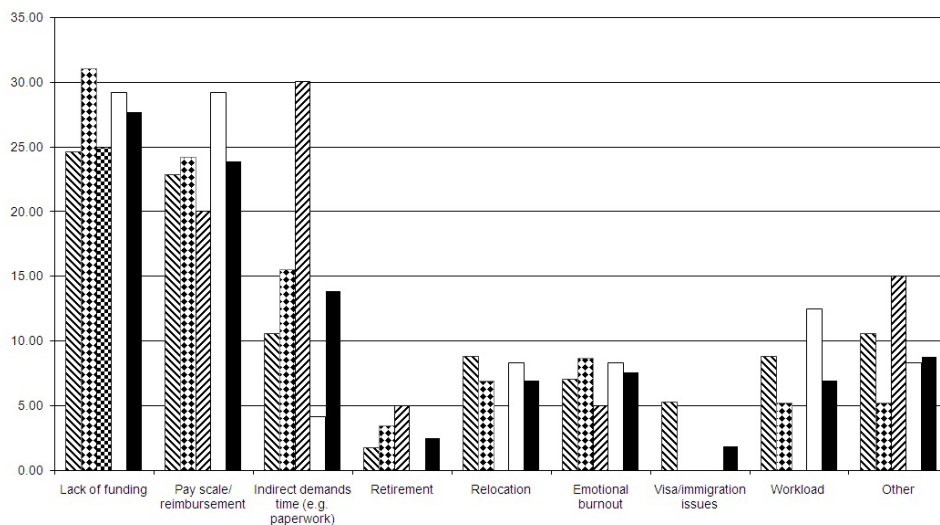
DISCUSSION

In 2008, the CDC increased its estimate of new HIV infections occurring annually in the United States by 41%, raising the annual HIV incidence estimate to 56,300 new cases¹¹. Owing to recent advances in therapy, HIV-associated mortality continues to fall, with the median survival of successfully treated patients now approaching that of the uninfected population¹². Taken together, the prevalence of people living with HIV disease continues to increase at a steady rate, with concomitant increases in HIV patient caseloads at HIV clinics around the country. Since a disproportionate number of HIV patients have lower socioeconomic status and a high proportion have no health insurance, a majority of HIV patients in the United States rely on Ryan White-funded care centers for treatment. With Ryan White clinics being virtually flat-funded for the last decade despite a 52% increase in patient numbers from 2001 to 2008 [Figure 1], the increased patient burden has placed great stress on most clinics to provide adequate care to their

Figure 2:
Challenges in Recruiting Providers



Challenges in Retaining Providers



growing HIV patient caseloads. As routine HIV testing appropriately becomes more widespread, the pressure on these clinics will continue to increase over the next decade.

Our survey results demonstrated that many of the Part C patients entered care with an AIDS diagnosis. Patients diagnosed late in the course of disease experience more complications of infection, tolerate medications less well, cost more to provide care for annually, and have higher mortality rates^{4,13,14}. Moreover, CDC estimates that more than 50% of new infections come from the 20% - 30% of HIV infected individuals who do not know they are infected⁹. Therefore, for the benefit of the individual's health, the public health, and to keep costs of care to a minimum, the CDC has recommended a policy of 'opt out' testing of all individuals in order to identify HIV infected persons earlier in the course of disease. A key assumption in this policy is that



	Northeast			Southeast			Central			West			Total		
	N	Mean 95% C.I.	Median Range	N	Mean 95% C.I.	Median Range	N	Mean 95% C.I.	Median Range	N	Mean 95% C.I.	Median Range	N	Mean 95% C.I.	Median Range
Total Number of HIV Patients in 2007	72	578.43 (419.18-737.68)	329.5 (36-3687)	73	809.93 (611.3-1008.57)	549 (80-4395)	29	471.1 (294.20-648.01)	260 (86-1816)	35	590.2 (365.38-815.02)	265 (25-2600)	209	646.37 (547.79-744.95)	398 (25-4395)
Number Of New Patients In 2007	71	92.2	47	72	152.82	100	29	77.14	44	33	89.12	42	205	110.86	64
Number Of New Patients Clinic Would Be Able to Absorb	67	(64.51-119.88)	(5-651)	69	(115.19-190.45)	(17-687)	27	(47.99-106.28)	(11-300)	33	(53.91-124.33)	(5-360)	196	(92.94-128.79)	(5-687)
Physicians (FTE)	57	2.54 (63.12-117.57)	2 (5-646)	57	2.05 (108.18-200.81)	1 (0-1000)	21	1.98 (25.1-52.9)	1 (0-150)	27	1.42 (38.05-113.65)	1 (0-400)	162	2.11 (83.05-123.78)	1 (0-1000)
Nurse Practitioners (FTE)	57	0.9 (1.84-3.25)	0.4 (0-14)	57	1.05 (1.31-2.79)	0.8 (0-18)	21	0.63 (0.55-3.41)	0 (0-13)	27	0.3 (0.89-1.94)	0 (0-5.3)	162	0.82 (1.70-2.51)	0.24 (0-18)
Physician Assistant (FTE)	57	0.39 (0.55-1.24)	0 (0-6)	57	0.3 (0.69-1.40)	0 (0-6)	21	0.15 (0.18-1.08)	0 (0-3)	27	0.23 (0.09-0.51)	0 (0-2)	162	0.3 (0.63-1.00)	0 (0-6)
Physician Caseload	59	170.78 (132.98-208.58)	125 (10-700)	65	275.18 (216.1-334.27)	216 (9-1250)	19	238.79 (144.06-333.51)	200 (8-750)	25	186.48 (125.64-247.32)	140 (20-485)	168	221.2 (191.26-251.14)	177.5 (8-1250)
Nurse Practitioner Caseload	38	126.84 (90.42-163.26)	100 (5-446)	45	189.16 (143.29-235.02)	168 (10-750)	9	178.89 (123.63-234.14)	150 (75-285)	7	244.71 (110.58-378.85)	175 (100-505)	99	168.23 (141.40-195.07)	150 (5-750)
Physician Assistant Caseload	17	117.18 (68.28-166.07)	100 (4-300)	13	231.54 (125.08-338)	200 (25-600)	7	160 (67.94-252.06)	185 (10-250)	8	170 (48.58-291.42)	140 (20-465)	45	166.27 (125.23-207.30)	140 (4-600)
Waiting Time for Scheduling Newly Diagnosed Patient Appointments (Weeks)	64	1.27 (1.01-1.52)	1 (0-6)	70	1.73 (1.42-2.03)	1 (0-6)	24	1.25 (0.94-1.56)	1 (0-3)	29	1.48 (0.91-2.05)	1 (0-8)	187	1.47 (1.30-1.64)	1 (0-8)
Waiting Time for Scheduling New (Not Newly Diagnosed) Patient Appointments (Weeks)	63	1.68 (1.34-2.03)	1 (0-6)	69	2.06 (1.71-2.40)	2 (0-6)	23	1.43 (1.03-1.84)	1 (0-4)	29	1.79 (1.14-2.45)	1 (0-8)	184	1.81 (1.60-2.02)	1 (0-8)
Waiting Time for Scheduling Returning Patient Appointments (Weeks)	63	1.92 (1.47-2.38)	1 (0-12)	69	2.72 (2.16-3.28)	2 (0-12)	22	2.05 (1.33-2.76)	2 (0-6)	28	2.64 (1.50-3.79)	1.5 (0-12)	182	2.35 (2.03-2.68)	2 (0-12)



all patients newly diagnosed will be linked to care and have access to appropriate therapies. As such, it is critical that as this policy is implemented there is adequate capacity to absorb the newly identified patients into clinical care.

Complicating this objective is the socioeconomics of the HIV patient population. As demonstrated in our survey, the majority of such patients rely on Medicaid or Medicare for coverage and more than a third are uninsured. Estimates from the Kaiser Family Foundation indicated slightly higher percentages of people with HIV relying on Medicaid or Medicare (approximately 40% and 20% respectively)^{15,16}. The percentage of patients without insurance coverage reflected previous rates reported for Ryan White programs¹. It is important to note that the uninsured rate among HIV patients is expected to decrease with implementation of the new health reform law, but not until 2014 and beyond when the majority of the coverage expansion provisions will occur¹⁷. Therefore, it is critical that Ryan White programs have the capacity to see the high numbers of newly diagnosed patients without insurance for at least the next several years and likely beyond due to coverage limitations and cost sharing requirements under Medicaid and in the private insurance market. It is also will be imperative for Ryan White programs to prioritize funds for comprehensive patient care to ensure the HIV care system is able to meet increased demand. This could require implementation of novel accounting procedures such as capitated per patient reimbursement rates paid to clinics in order to assure equity in how clinical care is funded.

With the growing number of people living with HIV/AIDS, it is not surprising that a majority of the Part C programs reported increasing patient loads¹⁸. Many Part C programs were operating above their capacity with the median increase reported by the programs being slightly higher (17.50%) than the percentage of new patients that the programs estimated they could absorb (16.00%). Moreover, the 'absorptive capacity' of the clinics was roughly equal to the average number of new patient referrals in a single year (16.69%). While the panel sizes of Part C providers in the survey are lower than reported for primary care physicians at community health centers who may see panels of 2000 patients, this is to be expected given the complexity of HIV care which is a unique hybrid of specialty and primary care¹⁹. In the absence of increased resources, the ability of these clinics to absorb new patients will be exceeded, heralding a crisis in access to care for newly diagnosed HIV patients.

Capacity challenges also are indicated in the reported waiting times for appointments. Previous reports on appointment waiting times have indicated average waiting times of 5 days for new patients and 8 days for established patients²⁰. Data from our survey indicate longer waiting times for new and established patients in Part C programs with waiting times varying by region. In particular, Part C programs in the Southeast, a region with the fastest growing number of newly

diagnosed patients²¹, reported longer waiting times for all three types of appointments (newly diagnosed, new to the clinic and returning patients) compared to other regions. These clinics also reported higher caseloads per clinician for physicians and physician assistants. Other surveys indicate that the region also reported higher rates of unmet medical need.²² The survey results raise serious concerns about the ability of the HIV care system to meet the demand for HIV care and treatment. Since this survey was conducted, the economy experienced a recession and the number of people without insurance has increased²³. These and other factors have likely heightened the urgency of strengthening HIV medical workforce capacity and ensuring adequate clinic resources.

The HIV medical workforce issues identified by the Part C clinics reflected those faced by the primary care workforce generally. Primary care shortages are rightfully receiving greater attention through the expansion of federal health professions programs and proposals to address disparities in reimbursement for primary care services²⁴. These programs and new resources should also be targeted to HIV medical providers given their role as primary care providers and the similarity between the challenges threatening the HIV medical workforce²⁵.

One approach to dealing with shortages of primary care providers is to utilize mid-level providers such as Nurse Practitioners and Physician Assistants. Part C clinics responding to this survey rely more heavily on physicians and nurse practitioners for providing services than physician assistants; fewer than half of clinics responding reported having physician assistant FTEs. The caseloads reported by Part C programs in this study were in line with other Ryan White Part C findings that examined provider caseloads²⁶. Data from 2000 indicate that for Ryan White Part C clinics, physician assistants and nurse practitioners represented 20% of primary care providers at the sites²⁰. Our findings that physician assistants and nurse practitioners represent 34% of clinician FTEs suggest that the proportion of mid-level clinical providers compared to physicians has increased since 2000. Differences in the types of providers (in FTEs) may also vary by region. While clinics in the Northeast reported approximately five times the number of physician as nurse practitioner FTEs (median =2.0, 0.4 respectively,) clinics in the Southeast had almost equal numbers of physicians and nurse practitioners (median = 1.0, 0.8 respectively). Differences in the numbers of provider FTEs could be due to differences in clinic size between the regions, but there appear to be differences in the proportions of provider types between the regions.

Reimbursement levels affect the ability of clinics to meet the medical needs of their patients and according to these survey findings are a major factor contributing to medical workforce challenges at many Part C clinics. The substantial number of patients at Part C clinics that rely on Medicaid for their health



care coverage is likely contributing to the magnitude of the reimbursement problem. This will become an even bigger issue in 2014 when states expand Medicaid to all individuals up to 133% of the federal poverty level¹⁷. Medicaid programs reimburse at very low levels relative to other payers with Medicaid primary care service reimbursement rates averaging just 66% of Medicare rates for the same services²⁷. Addressing reimbursement disparities for HIV physicians, particularly for Medicaid, is critical to alleviate HIV patient access issues as well as address HIV medical workforce shortages. Under the new health reform law, the temporary increase in Medicaid reimbursement for internists, family medicine and pediatricians will begin to address this issue but not for HIV physicians trained in other specialties, such as infectious diseases²⁸. Federal funding levels for medical care through Ryan White also should be commensurate with the demand for HIV care and treatment across the country.

In addition to poor reimbursement levels, the survey results suggest that a potentially greater problem in some parts of the country is the lack of a sufficient pool of qualified HIV medical providers. It has been well documented that HIV treatment provided by experienced HIV providers improves patient outcomes and reduces the cost of HIV care^{29,30}, and yet there are limited opportunities for clinicians to pursue intensive training in HIV medicine outside of infectious diseases fellowship training. While Part C programs from all regions reported difficulties maintaining an adequate HIV medical workforce, the South faced more urgent challenges. Other areas such as the Midwest report different HIV workforce barriers than the rest of the country. The findings suggest that targeted interventions in terms of scale and type are needed to effectively address workforce shortages across the country. A national, quantitative study would help target limited workforce resources and evaluate the extent of the HIV workforce problem among all HIV medical providers and clinics, including non-Ryan White funded HIV medical providers and clinics. Increased training opportunities in HIV medicine are needed coupled with incentives to encourage clinicians to pursue HIV medicine, such as tuition loan forgiveness and training stipends.

HIV workforce and clinic capacity issues threaten the ability of the HIV care system to meet the growing demand for

lifesaving HIV care. These findings are particularly troubling given that the first generation of HIV medical providers is aging and approaching retirement within the next decade. The issues raised by Ryan White Part C programs in this survey warrant immediate attention to ensure access to quality, effective HIV care in the United States in the years ahead.

Several limitations exist with the survey findings. Responses to the clinic and care capacity survey were self-reported and clinics were asked to estimate cases, caseloads and waiting times, so survey data may not reflect actual numbers within clinics. Only Ryan White Part C Providers were surveyed, so the results may not reflect the capacity issues and workforce challenges facing other, non-Ryan White Part C, HIV clinics. Online surveys can present challenges for data analysis and ensuring unique responses. Responses were reviewed for duplicate clinic names and zip codes but the possibility of more than one response from a single clinic exists.

CONFLICT OF INTEREST

Dr. Miller reports serving on advisory boards for Bristol Myers Squibbs and Hoffman LaRoche. Dr. Saag reports serving on advisory boards and receiving research support from Ardea, Boehringer Ingelheim, Bristol Myers Squibb, Gilead, GlaxoSmithKline, Merck, Viiv, and Tibotec; serving on an advisory board for Avexa; serving as a consultant for Pain Therapeutics; serving on an advisory board, receiving research support and serving as a consultant for Pfizer; serving on an advisory board and as a consultant for Vertex; and receiving research support for Monogram. Ms. Weddle reports participating in a community advisory board for Bristol Myers Squibb. The remaining authors disclose no conflicts.

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http://www.hivforum.org/index.php?option=com_content&task=view&id=17&Itemid=46



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