



PROGRAM DESIGN AND EVALUATION SERVICES
MULTNOMAH COUNTY HEALTH DEPARTMENT AND
OREGON DEPARTMENT OF HUMAN SERVICES

Oregon Medical Practices that Provide HIV Care:

2008 Snapshot

Final Report

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Contact: Maureen Rumptz
Phone: (971) 673-0606
Fax: (971) 673-0590
Email: maureen.h.rumptz@state.or.us

Authors and Contributors

Program Design & Evaluation Services – Multnomah County Health Department and Oregon Department of Human Services, Public Health Division: Maureen H. Rumpitz, Susan Van't Hof, Tim Holbert, Kari Greene, Linda Drach, Nik Desai, Sara Kersey, Kathleen Sullivan, and Doris Cordova.

HIV/STD/TB Programs – Oregon Department of Human Services, Public Health Division: Sean Schafer, Medical Epidemiologist.

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Oregon Medical Practices That Provide HIV Care: 2008 Snapshot

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Introduction

The purpose of this report is to provide the HIV/STD/TB Program within the Oregon Public Health Division with a current description and enumeration of medical practices in Oregon that provide HIV care for the purposes of HIV health services planning. Specifically, this information will have statewide implications for training health care providers, organizing medical case management and supportive services, and monitoring the quality and frequency of the medical services delivered to people living with HIV or AIDS (PLWH/A) in Oregon.

At the end of 2006, there were an estimated 7,003 PLWH/A in Oregon: 4,727 reported cases and 2,276 estimated cases (people not yet diagnosed and/or those not reported). Service delivery in Oregon is divided geographically into the Portland Transitional Grant Area (TGA), which includes five counties that comprise or surround the Portland metropolitan area (Clackamas, Columbia, Multnomah, Washington and Yamhill), and the Balance of State, which includes the remaining 31 Oregon counties stretching to the California, Idaho, and Nevada borders. Most PLWH/A (73%) live in the Portland TGA. Balance of State counties with 50 or more PLWH/A include the following seven counties: Deschutes, Douglas, Jackson, Josephine, Lane, Linn, and Marionⁱ. Although Oregon is a large, primarily rural state, approximately 90% of PLWH/A receiving Ryan White CARE Act (RWCA)-funded services live within 25 miles of Interstate 5.ⁱⁱ

In preparing this report, Program Design & Evaluation Services (PDES) gathered basic demographic data on all medical practices in Oregon thought to provide care for patients with HIV and conducted phone interviews with those confirmed to be HIV care providers through our screening. We translated our findings into next steps for the HIV/STD/TB Program as they continue to develop strategies to ensure accessible, appropriate care for Oregonians with HIV.

The report is organized into the following sections:

- Introduction: In this section, we describe the purpose of the report.
- Methods: In this section, we identify the sampling strategy and final sample, and describe the data collection process and analysis strategies.
- Results: In this section, we answer the following three evaluation questions and provide a summary of key findings:
 - How many medical practices in Oregon provide HIV care and treatment, and where are they located?

ⁱ Oregon Department of Human Services, HIV/STD/TB Program. Epidemiologic Profile of HIV/AIDS in Oregon, 2006. DHS: Portland, OR, March, 2008.

ⁱⁱ 2006 Oregon CARE Act Data Report (CADR): service utilization data for Ryan White-funded HIV case management and support services

- What do HIV medical care facilities in Oregon look like in terms of practice affiliation, size, and type?
- What types of services do HIV medical care facilities provide?
- Limitations: In this section, we provide cautions about limitations inherent in the methodology we used.
- Discussion: In this section, we discuss implications for program planning and next steps.
- Appendices – (A) data tables and (B) methodological and technical notes.

Methods

A summary of the sampling strategy and final sample, data collection process, and analysis strategy for this report is provided belowⁱⁱⁱ.

Sampling Strategy and Final Sample

PDES and Medical Monitoring Project (MMP) staff created a list of all facilities in Oregon that could potentially provide HIV care. Facilities were defined as a place where clinicians provide HIV care, with some evidence of group identity defined as shared medical records, billing, or location. Facilities were identified from the following sources:

- Oregon's HIV/AIDS Reporting System (HARS): This system is centralized at Oregon's HIV/STD/TB Program. In October 2007 we gathered a list of all providers of record for HIV cases reported to the state from 1981 – September 2007.
- Oregon HIV Laboratory Reporting System (TRIO): As of 2006, laboratories must report positive HIV diagnostic tests, all CD4 counts, all viral load tests (including undetectable). Prior to 2006, only CD4 counts < 200 and detectable viral load tests were reported. In July 2007, a list was generated of all providers of record for laboratory results reported 2002 – June 2007.
- 2005 MMP Facility Sampling Frame: This list was created in the fall of 2004 and included those facilities identified through HARS, TRIO (laboratory reporting), AIDS Drug Assistance Program (known in Oregon as CAREAssist) and Ryan White-funded HIV case management lists.
- Facility Visits Logs (2007 MMP interviews): From the 80 participants interviewed as of December 2007, any facilities identified as 'usual HIV care providers,' and 'primary care providers' not already identified through other data sources were included in the sample.
- Facility Interviews: During data collection, December 2007 – February 2008, any additional facilities identified during the facility interviews were included in the sample.

ⁱⁱⁱ The results of this project were also used to develop a sampling frame of Oregon HIV care facilities for the Centers for Disease Control and Prevention (CDC)-funded Medical Monitoring Project.

Once all data sources were merged and duplicates eliminated, 305 facilities were identified as potentially providing HIV care in Oregon (Table 1)^{iv}.

Table 1: Number of Potential HIV Medical Providers in Oregon Identified Through Existing Data Sources

Source	Total	Duplicates	# HIV Facilities
2006-07 HARS & TRIO	2114	1930	184
2005 MMP Facility Sampling Frame	115	5	110
Facility Visits Logs	390	389	1
Facility Interviews	10	0	10
TOTAL	2629	2324	305

Four facilities did not respond to repeated attempts to contact them, making the final potential sample 301 facilities.

Data Collection Process

Project staff included the HIV/STD/TB Medical Epidemiologist and PDES staff members, including interviewers, research analysts and a research and evaluation supervisor. Data collection was primarily conducted by PDES staff. Prior to conducting interviews, staff received a project overview and reviewed the interview guide and training manual, which provided specific directions for data collection and use of the interview guide, definitions of terms, and decision making rules for data entry.

One week prior to data collection, a letter of introduction was sent to the contact person on record at each facility. The letter described the purpose of the project and invited the facility to participate in the interview. Following the letter, project staff contacted facilities primarily by telephone, but also by e-mail, fax, and traditional mail. Each facility had an assigned point person (interviewer) responsible for communication with the facility until the interview was completed. A majority of facilities required two or more contacts to complete the interview. The number of contacts required to interview a facility ranged from one to 12 with an average of 2.7 contacts per facility. Twelve facilities required eight or more contacts and 699 contacts were made in total. Because of the number of contacts required for follow up, having an assigned point person maintained consistency when facilities returned calls and for other follow up activities. After at least five unsuccessful attempts to contact a facility, interviews were reassigned to one of the lead

^{iv} In addition, 48 correctional facilities in Oregon were identified as possibly providing some type of care to HIV positive inmates; however, they were not germane to the specific aims of this study and were not included in this report.

project staff for continued recruitment efforts. In a few cases, the Medical Epidemiologist conducted interviews with facilities initially designated as non-responsive by project staff.

Because of the variability in facility type, characteristics and level of HIV care, the data collection team met weekly to discuss issues related to the interview guide, the purpose of specific questions, methods for encouraging non-responsive facilities to respond, facility eligibility, interviewer schedules, and data entry issues. In addition to regular meetings, interviewers frequently debriefed to discuss and clarify responses and definitions. All decisions were recorded in the manual.

Interview Tool

The final interview tool, the *HIV Care Facilities in Oregon Questionnaire*, was developed by merging the MMP Facility Attributes Worksheet (developed by the Centers for Disease Control and Prevention [CDC]) with Oregon's Facility Profile Questionnaire (developed and pilot tested in 2006 by Oregon MMP staff). PDES staff eliminated redundant questions and reworded others. Because the primary method of data collection was telephone interview with busy medical practices during work hours, it was important to keep the length of the interview guide manageable while ensuring collection of all data elements required by both the State of Oregon and the CDC.

The interview was divided into four parts. *Part I: Introduction* was used to familiarize the facility with the project and explain the purpose of the interview. *Part II: Contact Information* gathered contact data so that we had the facility's current address/phone and contact person information. *Part III: Screening Questions* screened facilities to determine if they were providing HIV care. *Part IV: Facility Interview* gathered detailed facility characteristics and service data for facilities determined to be providing HIV care.

Key stakeholders reviewed the draft interview guide and provided feedback. Interviewers piloted the interview tool with six selected pilot facilities. A few minor adjustments were made, mostly organizational changes and clarifications to response categories.

Analysis Strategies

The analysis strategy for this report was primarily descriptive (i.e., frequencies and chi-square analysis). We analyzed key characteristics of medical practices that serve HIV patients (i.e., location, number of HIV patients, type of medical practice, medical and psychosocial support services provided, accessibility of services, and other clinical practice areas). We examined four key characteristics in greater detail: range and depth of HIV care provided (Tier 1, 2 or 3); co-location of health educator, social worker, and case manager; practice size and region.

Results

This section provides an enumeration and up-to-date description of HIV practices (also referred to as “facilities”) in Oregon as of February 2008. Key evaluation questions included:

- How many medical practices in Oregon provide HIV care and treatment, and where are they located?
- What do HIV medical care facilities in Oregon look like in terms of practice affiliation/type, size, and type of services delivered?
- What types of services do HIV medical care facilities in Oregon provide?

How Many Medical Practices in Oregon Provide HIV Care and Treatment, and Where Are They Located?

Number of Facilities Providing HIV Medical Care in Oregon

By “HIV care,” we mean that a provider within a medical practice orders HIV viral load or CD4 count tests and/or prescribes antiretroviral therapy (ART) for the purpose of making decisions about treating or managing a patient’s HIV disease. For this report, we include only those facilities providing HIV care in an outpatient setting to PLWH/A 18 years or older.

A facility was considered to be providing HIV medical care if at least one provider within the facility provides:

- 1) Treatment of HIV disease of all severities and degrees without a need for additional formal consultation with another HIV specialist (i.e. may be considered a HIV specialist) (Tier 1),
- 2) HIV care in consultation with a HIV specialist (i.e., co-manages the care of HIV+ patients in conjunction with a HIV specialist) (Tier 2), or
- 3) HIV care up to a practice-specific threshold of severity (“until it gets too bad”), and then refers to a specialist (Tier 3).

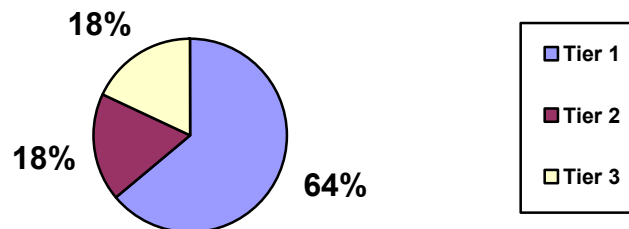
These three variations on HIV care were not defined prior to interviewing facilities but were categorized based upon interview responses. According to this definition, 44 of the 301 facilities interviewed (15%) were considered HIV medical care providers.^v

^v Please see Appendix A, Table 1 for types of care provided by the 301 facilities in the total sample. [0]

Figure 1 displays the distribution of HIV care facilities by level of care. Most facilities (n=28) provide Tier 1 level care (the full range of HIV care and treatment); 8 facilities each provide Tier 2 (in consultation) and Tier 3 (“until it gets too bad”) level care.

Sixty eight additional Oregon facilities order HIV labs or write HIV-related prescriptions according to other clinicians’ protocols. Though these providers are a critical link in the continuum of care for PLWH/A, we did not consider them HIV care providers for the purposes of this project (and did not include them in this report) because they do not make decisions in the management of patients’ HIV care.

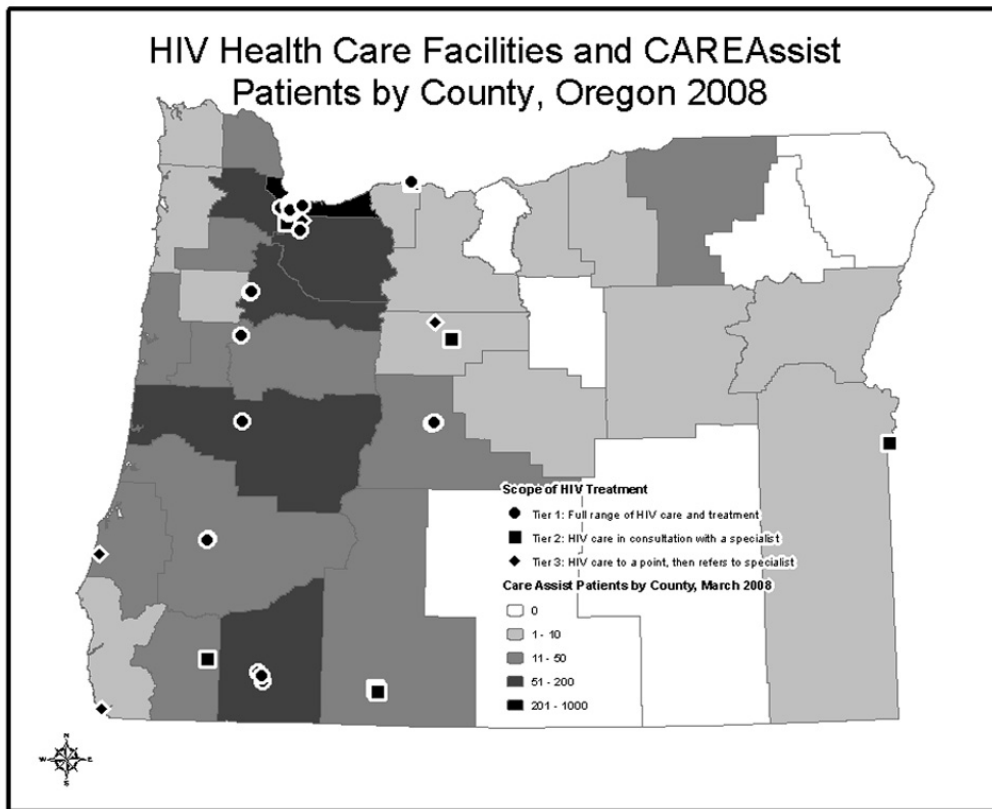
**Figure 1. Level of HIV Care Provided at Facilities
(n=44)**



Location of Facilities Providing HIV Medical Care in Oregon

Figure 2 displays a map of Oregon with the location of the 44 HIV medical care practices (subdivided by tiers) and the estimated number of PLWH/A by county. We used service data from the CAREAssist Program (Oregon’s AIDS Drug Assistance Program) as of March 2008, in order to reflect the projected need for HIV medical care in Oregon. For HIV health services planning, CAREAssist data may provide a better proxy for HIV prevalence because they are more current than surveillance data, which are based on residence at initial HIV diagnosis and case reporting. Additional methodological detail is provided in Appendix B.

Figure 2: Map of Facilities that Provide HIV Medical Care



As the map illustrates, most of the facilities providing HIV medical care are located along the North/South I-5 corridor, which is also where the majority of PLWH/A reside. However, the map also shows several areas where PLWH/A might be underserved in regards to HIV care. There are no Tier 1 facilities in the Eastern, North Coast and South Coast regions, which means patients must travel (sometimes great distances) to access HIV specialty care.

Based on counties where facilities are located and the distribution of PLWH/A, we categorized the state into seven regions: Portland TGA, Central-East, Central-West, Eastern, North Coast, Southern, and South Coast. Table 2 shows the number of facilities by tier in each of the regions.

Table 2: HIV Care Facilities by Region, Number and Tier

Region	Counties	Tier 1	Tier 2	Tier 3	Total HIV Facilities
Portland TGA	Clackamas, Columbia, Multnomah, Washington, Yamhill	13 (68%)	2 (11%)	4 (21%)	19
Central-East	Crook, Deschutes*, Hood River, Jefferson, Sherman, Wasco	6 (67%)	2 (22%)	1 (11%)	9
Central-West	Benton, Lane*, Linn*, Marion*, Polk	4 (100%)	0 (0%)	0 (0%)	4
Eastern	Baker, Gilliam, Grant, Harney, Lake, Malheur, Morrow, Umatilla, Union, Wallowa, Wheeler	0 (0%)	1 (100%)	0 (0%)	1
North Coast	Clatsop, Lincoln, Tillamook	0 (0%)	0 (0%)	0 (0%)	0
Southern	Douglas*, Klamath, Jackson*, Josephine*	5 (63%)	3 (38%)	0 (0%)	8
South Coast	Coos, Curry	0 (0%)	0 (0%)	3 (100%)	3
Total	Oregon	28	8	8	44

*Balance of State county with ≥ 50 PLWH/A.
Percentages may not add to 100 because of rounding.

The key findings by region are as follows:

- **Portland TGA Region:**
Nineteen of the 44 HIV medical facilities (43%) are located in the Portland TGA, including almost half (n=13, 46%) of the Tier 1 facilities. The Portland TGA has the greatest service demand in Oregon, as 73 percent of PLWH/A in Oregon live in the five counties that comprise the Portland TGA.
- **Central-East Region:**
The Central-East region has nine HIV care facilities, including six (21%) of the Tier 1, two of the Tier 2 and one of the Tier 3 facilities. This region offers a remarkable amount of HIV care options given the small number of PLWH/A in the region.
- **Central-West Region:**
The Central-West region has four facilities, each of which is a Tier 1 facility (provides full HIV care and treatment). This region has the second-largest concentration of PLWH/A in Oregon, after the Portland TGA, yet ranks fourth in number of Tier 1 facilities after (in descending order) the Portland TGA, Central-East, and Southern regions.
- **Eastern Region:**
The Eastern region has only one facility for the entire region, a Tier 2 facility that co-manages patients' care with a specialist.

- **North Coast Region:**
The North Coast region has no HIV care facilities at all. With no care in the region, PLWH/A living in this region must travel outside the region for HIV care.
- **Southern Region:**
The Southern region has eight facilities, including five (18%) of the Tier 1 facilities and three (38%) of the Tier 2 facilities. Three of the four counties in the Southern region have 50 or more PLWH/A, making it the third-largest concentration of PLWH/A in Oregon.
- **South Coast Region:**
The South Coast has a total of three facilities, all Tier 3, which provide care up to a point and then refer out to a specialist. With no specialist in the South Coast region, patients must travel outside the region for HIV care when their provider has determined their disease has progressed to a point they can no longer manage it.

What do HIV Medical Care Facilities in Oregon Look Like in Terms of Practice Affiliation/Type and Size?

Practice Affiliation/Type

Almost half of the facilities that provide HIV care and treatment (n=20, 46%) consider themselves affiliated with a larger group of providers, in most cases a health system such as Providence, Kaiser, or Legacy. A majority of facilities (n=37, 84%) provide outpatient care and the remaining 16 percent provide both inpatient and outpatient care. Most facilities (n=29, 69%) describe themselves as a solo/group private practice; the others are community health centers or clinics, teaching facilities, tribal health clinics or VA hospitals. Over half of these facilities (n=21, 53%) are primarily funded by private insurance or patient payments, while 28 percent (n=11) report being primarily funded by Medicare/Medicaid payments.

Of the 44 facilities, 26 (62%) describe themselves as primary care practices, while two facilities (5%) describe themselves as providing HIV/primary care. Both of these practice types provide both primary care and HIV care, but only the second group actually defines themselves as HIV care providers — an interesting difference in self-perception and definition. Eight facilities (19%) report being multi-specialty practices. Six (14%) describe their practice as a HIV/infectious disease, single-specialty care practice.

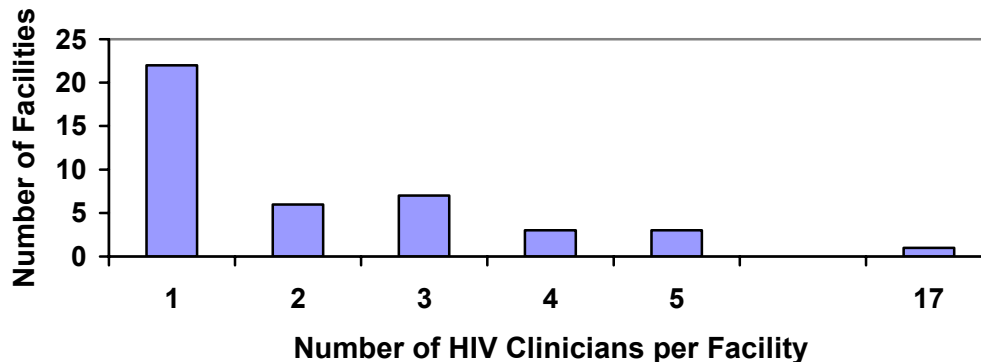
Practice Size

Across facilities, there was a wide range in the total number of clinicians per facility (1 to 250). However, about half the facilities (n=22, 52%) have four or fewer clinicians providing care at their facilities and another third (n=12, 29%) have between five and ten clinicians.

Facilities were asked to estimate the unique number of patients seen, inclusive of HIV, for a four month period from January 1, 2007 through April 30, 2007. Facilities reported a broad range of four-month patient volume, from 120 total patients (n=1) to 480,000 (n=1)^{vi}.

See Figure 3 for the range in number of clinicians providing *HIV care* within the facilities.

Figure 3: Number of HIV Clinicians Within Facilities



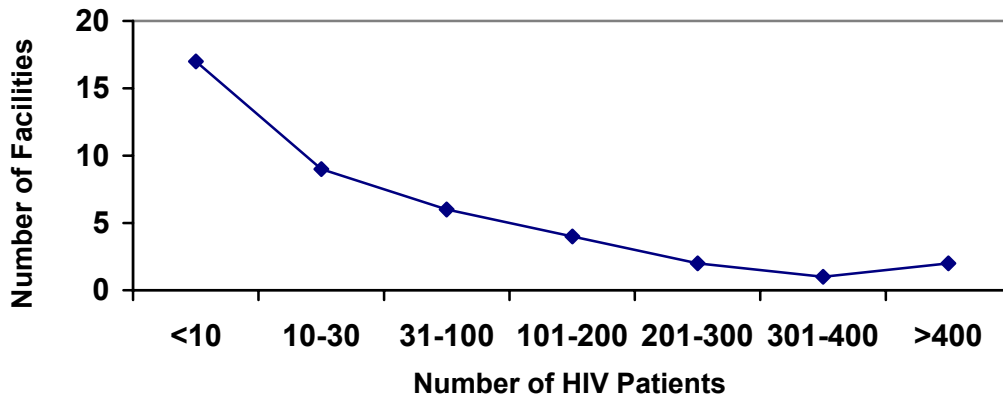
Twenty-two facilities (52%) have only one clinician providing HIV care. As with total number of providers, there was a broad range of HIV providers reported per facility, with 41 (98%) having from one to five and one (2%) having 17 HIV providers. Fourteen facilities (37%) reported that their HIV patients receive both primary care and HIV care at their facility.

Facilities were asked to estimate their HIV patient load (HIV EPL), defined as the number of unique HIV patients seen in the four month period from January 1, 2007 through April 30, 2007. Based on the distribution of HIV EPL, we defined “small” HIV practices as those with an estimated HIV patient load of 10 or fewer patients, “medium” as those having between 11 and 50 patients and “large” as those with 51 or more HIV patients.

^{vi} Forty eight percent of facilities of facilities, most of whom were facilities with a small number of HIV patients, were unable to estimate their four-month total patient volume. While it was easy for respondents of small practices to recall the number of HIV patients, they had much more difficulty recalling or calculating the total practice size.

Facilities reported a broad range of HIV EPL, from one patient (n=8) to 628 (n=1), with 22 facilities (54%) reporting 15 or fewer HIV patients. Twelve facilities (29%) have a HIV patient load greater than 50 patients, and 12 facilities (29%) reported having 10 to 50 HIV patients. The estimated number of patients across all 44 facilities was 3,213 during the 4 month period. Figure 4 shows the number of facilities reporting an estimated HIV patient load across the entire range of EPL.

Figure 4: HIV Estimated Patient Load



Size of HIV patient load and level of HIV care provided (tier) are related. All large practices are Tier 1 providers, while small practices are evenly distributed among the three tiers. All Tier 3 practices were small providers, χ^2 (Yates Corrected)(4, n=41^{vii})=12.4, p<0.015.

There is a similar, statistically significant association between HIV EPL and facility membership in a larger affiliated group. Three out of four large practices (75%) reported being part of a larger affiliated network. Eighty-two percent of the small practices (≤ 10 patients in the 4 month period) reported not being part of a larger affiliated network, χ^2 (Yates Corrected)(2, n=41)=8.9, p<0.015.

Practice size varies by region, but because of small numbers, we could not test for statistical significance. Portland TGA and Central-West regions account for 58 percent and 33 percent of the large practices, respectively. All of the facilities in the Central-West region fall into the large practice category. The only facilities in the South Coast and Eastern regions and most of the facilities in the Central-East region (78%) are small practices. The Southern and Portland TGA regions are the only regions that have at least one facility in each of the three practice sizes. None of the facilities interviewed in the North Coast region reported providing HIV care.

^{vii} The sample size for all Chi Square analyses was 41 because three facilities did not provide HIV EPL data.

What Types of Services Do HIV Medical Care Facilities in Oregon Provide?

Co-location of Medical Support Services

Facilities were asked about additional medical support services (Table 3). Twelve facilities (30%) offer appointments or sessions dedicated to risk reduction counseling by an individual with special training. Twelve facilities (30%) offer consultations or programs specifically designed to support or improve patient adherence to HIV treatment. Twelve facilities (29%) have an on-site pharmacy. One out of four facilities (25%) offer HIV case management and almost one out of four (24%) offer nutrition counseling with a dietician or nutritionist.

Table 3: Medical Support Services

Service	# and % of HIV Facilities
Risk Reduction Counseling	12 (30%)
Adherence Counseling	12 (30%)
On-site Pharmacy	12 (29%)
HIV Case Management	10 (25%)
Nutrition Services	10 (24%)

Co-location of Psychosocial Support Services

In addition to the HIV clinicians, some facilities have psychosocial support providers such as a health educator, social worker or general (non-HIV specific) case manager co-located within their facility. Almost one out of four facilities (n=10, 24%) have a health educator, and one out of three have either a social worker and/or a general (not HIV specific) case manager (n=13, 31%) on staff. There is a statistically significant association between practice size and the availability of psychosocial support services, with small facilities more likely to not have any of the three types of psychosocial support providers, χ^2 (Fisher's Exact)(2, n=41)=6.97, p=0.03.

Facilities with a health educator, social worker or non-HIV specific case manager on staff seemed more likely to be located in the Portland TGA, Central-East or Southern regions, though this association was not tested for statistical significance because of small numbers. No facilities located in the Eastern and South Coast regions reported having any supportive services from a practice-based health educator, social worker, or case manager. Two facilities in the Central-West region reported having a social worker, none reported having a health educator and one reported having a non-HIV case manager. No facilities in the North Coast region reported providing HIV care, so they were not asked whether they had support services.

Accessibility of Services

Facilities were asked about practice attributes that increase accessibility of services (Table 4). All facilities (100%) reported that they would provide a patient with an appointment within 48 hours, 67 percent provide walk in appointments, and 40 percent offer weekend hours. Eighty-five percent offer language translation services, mostly through professional interpreters or on-site, bi-lingual staff. Almost one out of four (23%) facilities offers transportation services. Only one facility offers child care.

Table 4: Accessibility Services

Service	# and % of HIV Facilities
Appointments in 48 Hours	42 (100%)
Translation Services	35 (85%)
Walk In Appointments	28 (67%)
Weekend Hours	17 (40%)
Transportation Services	9 (23%)
Child Care	1 (2%)

Clinical Practice Areas

We listed a range of clinical practice areas and asked whether at least one provider at the facility offers such care (Appendix A, Table 3). The top five clinical practice areas reported were: general medicine (88%), general infectious disease (85%), sexually transmitted disease (85%), and latent (72%) or active (62%) tuberculosis treatment.

Also noteworthy was the lack of facilities offering dental health, mental health or substance abuse care. A little over a quarter (27%) offer mental health counseling by a licensed mental health provider, and 17 percent offer substance abuse treatment, described as on-site activities provided by someone who specializes in substance abuse treatment. Fifteen percent offer dental services.

Summary of Key Findings

This evaluation provides a foundation for understanding where and how HIV medical care is delivered in Oregon. A small proportion of Oregon medical facilities that participate in HIV reporting activities (n=44, 15%) actually treat or manage adult patients' HIV disease. Of those facilities, 28 offer the care and treatment of HIV disease of all severities without need for additional consultation and might be considered HIV specialists, eight co-manage the care of HIV positive patients in conjunction with a HIV specialist, and eight only provide HIV care up to a practice-specific threshold (“until it gets too bad”) and then refer the patient to a specialist.

Facility size varies greatly in terms of number of clinicians and patients, and is related to level of HIV care provided. All of the large practices (≥ 50 patients) provide Tier 1 HIV care, while small practices (≤ 10 patients) provide care across the full range of care levels. All facilities providing care up to a practice-specific threshold before referring to a specialist (Tier 3) are small practices with 10 or fewer patients. About half of all HIV medical facilities in Oregon served 15 or fewer PLWH/A within the first four months of 2007.

Most of the 44 facilities providing HIV medical care in Oregon are located along the North/South I-5 corridor west of the Cascades, which is also where the vast majority of PLWH/A reside. Eighty-one percent of the facilities are located within three regions: the Portland TGA (n=19, 43%), Central-East (n=9, 20%), and Southern Oregon (n=8, 18%) (Table 5).

Table 5: Regional Summary of Number of Total and Tier 1 Facilities That Provide HIV Care, Number of HIV Care Providers, and Estimated Patient Load

Region	Total # of Facilities	Total # of Tier 1 Facilities	Total # of HIV Providers	Total 4 Month HIV EPL*
Portland TGA	19 (43%)	13 (46%)	41 (41%)	2,476 (77%)
Central-East	9 (20%)	6 (21%)	33 (33%)	76 (2%)
Central-West	4 (9%)	4 (14%)	5 (5%)	423 (13%)
Eastern	1 (2%)	0 (0%)	3 (3%)	4 (<1%)
North Coast	0 (0%)	0 (0%)	0 (0%)	NA*
Southern	8 (18%)	5 (18%)	9 (9%)	226 (7%)
South Coast	3 (7%)	0 (0%)	8 (8%)	8 (<1%)
Total	44 (99%)*	28 (99%)	99 (99%)	3,213 (100%)

*Forty-one percent of the facilities estimated their 4 month HIV patient load and the remainder gave an exact count.

*There are no HIV care providers in the North Coast region; therefore, we do not have a HIV EPL.

*Percentages do not sum to 100 because of rounding.

According to facility estimates, just over three-thousand patients (n=3,213) received HIV care at one of the 44 HIV care facilities between January 1, 2007 and April 30, 2007. HIV EPL should be interpreted with caution because: 1) numbers are based on a 4-month period, not total patient estimate over a full year and 2) in many cases, numbers are based on facility estimates rather than an exact count.

However, the estimates of HIV EPL are instructive. Although HIV EPL approximate the regional distribution of both RWCA service data and HIV surveillance data, with the vast majority of patients seen in three regions (the Portland TGA, Central-West and Southern), they reveal a disproportionate distribution of patients relative to both HIV care providers and HIV care facilities across regions. This indicates that, in some regions, the supply of HIV care facilities and providers may not be well matched to service demand.

For example, the Portland TGA has 77 percent of estimated patients, but only 43 percent of the facilities, 46 percent of Tier 1 facilities, and 41 percent of HIV providers. Conversely, the Central-East region, with only 2 percent of estimated patients, is home to 20 percent of HIV care facilities, 21 percent of Tier 1 facilities, and a full third (33%) of care providers.

Other regions display different patterns. The Central-West region, a relatively small geographic area with the second largest concentration of PLWH/A (13% according to HIV EPL), has a similarly concentrated HIV care system, with five HIV care providers working from four Tier 1 facilities. The HIV care system in the larger Southern region is more diffuse, with eight facilities (18% of total) serving seven percent of the HIV EPL.

Finally, some areas of Oregon are clearly underserved with regards to HIV medical care: patients in the Eastern, North Coast, and South Coast areas do not have a Tier 1 facility in their region at all, meaning they must travel great distances to access HIV specialty care. However, there are very few patients in these areas.

Of the 44 HIV medical care facilities, most (69%) are private sector practices; the remaining 31 percent are a combination of public and community-based entities. Only one facility has on-site Ryan White-funded support services. However, about one-third of the facilities—particularly facilities that serve higher numbers of PLWH/A—have some type of psychosocial support provider (e.g., health educator, social worker, case manager) co-located with their HIV medical care providers. In addition, about one third of the facilities offer additional medical support services like treatment adherence help, risk reduction counseling, or an on-site pharmacy. Very few offer important ancillary services like dental health, mental health, or substance abuse care within their facility.

Limitations

This study has several limitations. First, any description of HIV care across the state is a snapshot of HIV care at one point in time only. Factors that influence the number of medical practices that provide HIV care in Oregon (e.g., provider retirement, facility mergers) are always shifting.

Second, the definitions of “HIV care” and “facilities that provide HIV care” are inherently ambiguous. Primary aims of the current study were related to HIV health services planning, and we set our definitions accordingly. Others in the field may define care or facilities differently.

Finally, many facilities had difficulty providing an exact count of their HIV patient load, and therefore needed to provide estimates instead. Still, estimates approximate both HIV surveillance data and RWCA service data, and provide another source of information on the distribution of PLWH/A in Oregon.

Discussion

The Ryan White HIV/AIDS Treatment Modernization Act of 2006 changed how Ryan White funds can be used at the state and local levels, requiring that more money be spent on “direct health care” for people living with HIV. Specifically, the new law requires that at least 75 percent of all grant funds be spent on “core medical services”,^{viii} while 25 percent may be used for supportive services like medical transportation, housing, and emergency financial assistance^{ix}. Furthermore, the Health Resources and Services Administration (HRSA) requires RWCA-funded entities, including the State of Oregon, to ensure that all PLWH/A in their jurisdiction are receiving appropriate medical care for their HIV disease, regardless of where they receive their medical care.

These data on number, location, and type of medical facilities that provide care and treatment for PLWH/A in Oregon are important to health services planning in four fundamental ways.

- First, these data help illuminate how and where HIV medical care is delivered in Oregon; without an understanding of that, the State of Oregon would be unable to

^{viii} The Health Resources and Services Administration (HRSA) defines core medical services as outpatient and ambulatory health services, pharmaceutical assistance, substance abuse outpatient services, oral health, medical nutritional therapy, health insurance premium assistance, home health care, hospice services, mental health services, early intervention services, and medical case management, including treatment adherence services.

^{ix} U.S. Department of Health and Human Services, HRSA Website.
<http://hab.hrsa.gov/treatmentmodernization/coreservices.htm>. Accessed 11/7/07.

ensure that PLWH/A are receiving quality medical care, as required by HRSA. These data illustrate where key public-private partnerships need to be developed, in order to conduct ongoing quality management of medical services for PLWH/A.

- Second, these data may help identify facilities whose patients could benefit from access to supportive services like nurse case management and psychosocial support that will help improve treatment adherence and patient quality of life. Although about one third of HIV care facilities have these services on-site, many do not. Options for connecting patients to supportive services could include co-location of RWCA-funded supportive services with HIV medical care, linkage to public or community-based agencies that provide supportive services, or some combination of direct service and referral. Regional differences are likely to require a multiplicity of options.
- Third, these data help identify areas of the state and corresponding numbers of PLWH/A that are underserved in relation to HIV medical care. Future quality improvement steps could include coordinating with facilities that do not provide Tier 1 HIV care and/or those that write labs or prescriptions, but do not provide what we considered in this report to be “HIV medical care.” Both types of facilities might benefit from additional provider training and/or information on RWCA-funded services, like medical transportation, that could augment the care they provide by supporting patient access to specialty HIV medical care.
- Finally, these data help to identify the range of stakeholders that could join the HIV Care & Treatment Program in helping to shape the planning and delivery of HIV health services across the state of Oregon, including HIV Surveillance, local public health jurisdictions, private medical providers, community-based clinics, tribal health services, the Oregon HIV Care Coalition (OHCC), the AIDS Education & Training Center (AETC), and others.

This project represents an important partnership between the State of Oregon HIV Surveillance and HIV Care & Treatment Programs. These data are being used to inform HIV health services delivery at the statewide and local levels, and to identify the sampling frame for a large, national, multi-site CDC-funded project to monitor the quality and frequency of care in Oregon (the Medical Monitoring Project). However, between the time the data were collected and the writing of the report, a number of facilities’ information had already changed. As noted, these data provide a snapshot. Plans for ongoing facility contact, with regular updates to the information provided here, should be developed, in order to simultaneously support routine HIV surveillance, care, and treatment activities in Oregon.

Appendix A. Data Tables

Table 1. Type of Care Provided by Facilities Interviewed (n=301)

	# of Facilities	Percent of Sample*
HIV Care		
• Provides all HIV care	28	9%
• Provides care in consult with HIV specialist	8	3%
• Provides HIV care up to a point then refers out	8	3%
No HIV Care Currently Provided		
• Refer out for HIV Care (family practice, community health, public health department)	74	25%
• Will order labs/meds according to specialist's protocol	68	23%
• Inpatient, acute care, nursing home, hospice or SA treatment	35	12%
• Provides other specialty care	27	9%
• Facility closed, merged with another, no contact information available	21	7%
• Counseling and testing only	20	7%
• Would provide HIV care if had HIV+ patient	11	4%
• Retiring	1	0%

*Due to rounding, total percent is greater than 100.

Table 2. Facility Description

	# of Facilities	Percent of Facilities
HIV Care Level (n=44)		
A (Tier 1)	28	64%
a (Tier 2)	8	18%
B (Tier 3)	8	18%
Affiliated Group (n=44)		
Yes	20	46%
Type of Care (n=44)		
Both Inpatient & Outpatient	7	16%
Outpatient Care Only	37	84%
Facility Type (n=42)		
Solo or Group Private Practice	29	69%
Community Health Center or Clinic	6	14%
Teaching Facility	2	5%
Tribal Health Clinic	2	5%
VA Hospital	2	5%
Local Health Dept.	1	2%
Primary Funding Source (n=40)		
Private Insurance/Patient Payments	21	53%
Medicare/Medicaid	11	28%
Don't Know/Unsure	4	10%
Other Public Source (specify)	3	8%
Public Grants	1	3%

Table 2. Facility Description Continued

	# of Facilities	Percent of Facilities
Type of Practice (n=42)		
Primary care practice	26	62%
Multi-specialty care practice	8	19%
Single-specialty care practice	6	14%
HIV Primary Care	2	5%
Health Educator (n=42)		
Yes	10	24%
Social Worker (n=42)		
Yes	13	31%
General Case Manager (n=42)		
Yes	13	31%

Table 3. Clinical Practice Areas

Clinical Practice Areas Offered	# of Facilities	Percent of Facilities
General Medicine (Unrestricted primary care for adults)	36	88%
General Infectious Disease	35	85%
STDs (other than HIV)	34	85%
Latent TB	28	72%
Active TB	24	62%
Dermatology	24	59%
Allergy/Immunology	20	49%
Hepatology	19	48%
Gastroenterology	18	44%
Prenatal Care (general, not high risk)	17	41%
Pulmonary Specialty Care	12	29%
Mental Health Counseling by Licensed Provider	11	27%
Prenatal Care, Specialized for High Risk Pregnancies	9	23%
Complementary or Alternative Medicine	9	22%
Hematology-Oncology Specialty Care	9	22%
Substance Abuse Services	7	17%
Dental Services	6	15%
Ophthalmology Specialty Care	6	15%

Appendix B. Methods Detail and Technical Notes

Methodology for creating map

Using a geocoding service supplied by the Oregon Department of Human Services, Public Health Division, the addresses of the 44 facilities were geocoded. The geocoding system compares addresses to multiple sets of reference data in descending order of assumed precision. For example, a given address would first be compared to tax lot data if available; if no geolocation available, the same address would be compared to a slightly less precise reference such as a composite geodatabase obtained from Metro and next would be commercial street files, etc. Failing to match to any of these more specific reference data sets, an address is matched to the centroid of the zip code if available. None of the 44 medical facilities matched to reference data less precise than a street file.

We next projected county outlines onto a map of Oregon counties using ArcMap (Version 9, ESRI, Redlands CA) and linked these to counts of AIDS Drug Assistance Program clients by county as of March 2008 provided by the Oregon HIV Care and Treatment Program. We overlaid a projection of the geolocations of the HIV/AIDS treatment facilities, using different symbols to indicate the scope of HIV treatment provided by each facility.