



Colorado Statewide Coordinated Statement Of Need

Developed By The Colorado Department of Public Health and Environment
STI/HIV Section, Care and Treatment Program (Part B)

In Collaboration With

Colorado's Community of People Living with HIV or AIDS
Denver Office of HIV Resources (Part A Grantee)
Denver HIV Resources Planning Council
Beacon Center for Infectious Disease (Part C)
Saint Mary's Family Medicine (Part C)
Pueblo Community Health Center (Part C)
Denver HIV Primary Care Clinic (Part C)
Children's Hospital Immunodeficiency Program (Part D)
Community-Based Dental Partnership Program at University of Colorado School of Dental Medicine (Part F)
Colorado AIDS Education and Training Center (Part F)
And Other Concerned Stakeholders

Colorado 2012 Statewide Coordinated Statement of Need

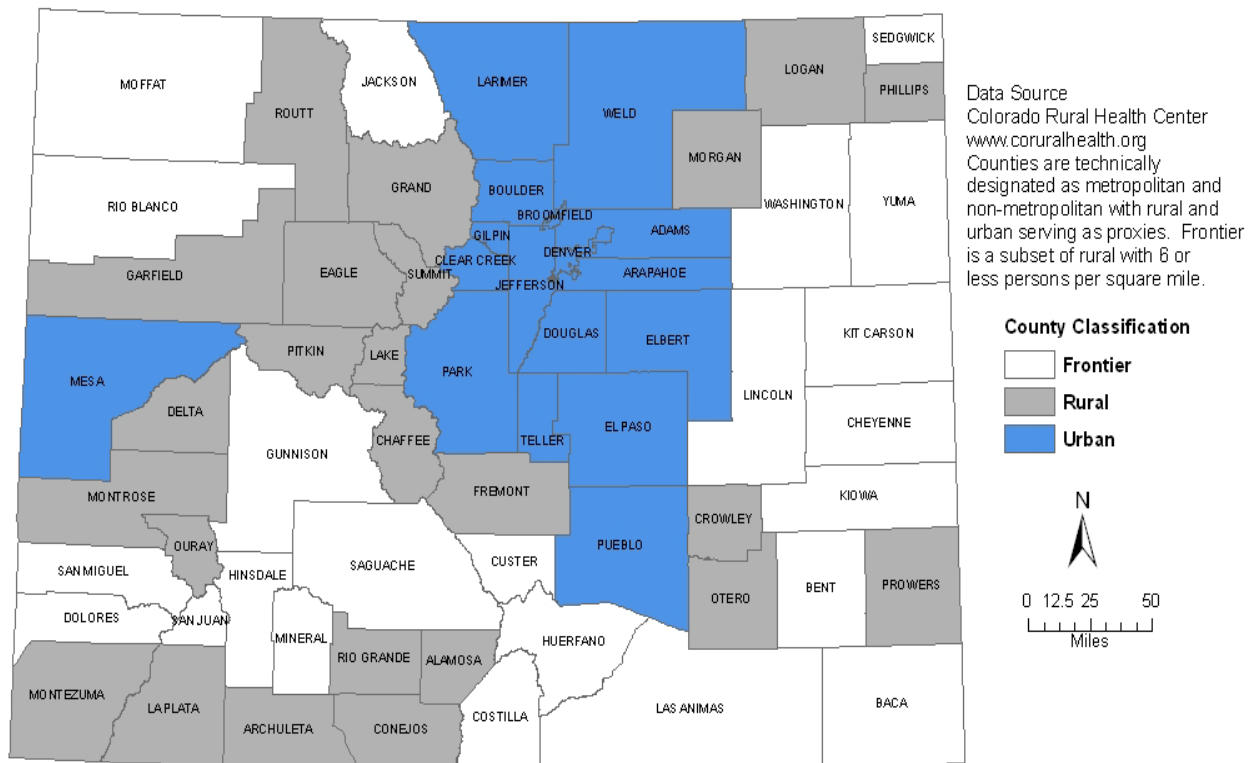
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Chapter 1 – Description of the Population of Persons Living with HIV or AIDS in Colorado

General Demographics of Colorado

- According to the 2010 U.S. Census, Colorado's population is 5,029,196, a 17 percent increase over the 2000 U.S. Census.
- Colorado's population is 70 percent White, 21 percent Hispanic, 4 percent Black, 2.6 percent Asian Pacific Islander, 0.6 percent American Indian. Individuals identifying as two or more races comprise an additional 2 percent of the population.
- Twenty-one percent of Coloradans identify as Hispanic or Latino ethnicity
- According to the Kaiser Family Foundation, Colorado was in a tie with 5 other states for having the 9th highest proportion of uninsured persons, 14 percent, slightly lower than the national average of 16 percent.
- In 2010, cancer remains the leading cause of death in Colorado.
- In 2010, 36,453 persons were incarcerated in Colorado prisons and jails, representing incarceration rates of 445 and 292 per 100,000, respectively.

Figure 1.1: Map of Colorado by County Classification¹



¹ Colorado Rural Health Center

Geography

Colorado is a geographically rural state. Colorado has 64 counties across a landmass of 104,095 square miles. The majority of Colorado's population resides in 17 counties designated as metropolitan areas as defined by the U.S. Office of Management and Budget. These counties include: Adams, Arapahoe, Boulder, Broomfield, Clear Creek, Denver, Douglas, El Paso, Elbert, Gilpin, Jefferson, Larimer, Mesa, Park, Pueblo, Teller and Weld. The designation of Frontier is a subset of rural, given to those counties with six or fewer persons per square mile. All three classifications and their counties are pictured in **Figure 1.1** above.

Age

Table 1.1 shows the population by age and gender.

Table 1.1: 2009 Colorado Population by Age and Gender²

Age Group	Male	Percent	Female	Percent	Total	Percent
<10	354,143	14.0	338,420	13.5	692,563	13.8
10-14	170,192	6.8	162,462	6.5	332,654	6.6
15-19	175,730	7.0	163,745	6.5	339,475	6.8
20-24	181,765	7.2	166,850	6.7	348,615	6.9
25-29	192,007	7.6	180,452	7.2	372,459	7.4
30-34	181,317	7.2	172,502	6.9	353,819	7.0
35-39	182,350	7.2	171,255	6.8	353,605	7.0
40-44	175,758	7.0	170,281	6.8	346,039	6.9
45-49	185,148	7.3	186,487	7.4	371,635	7.4
50-54	184,243	7.3	186,820	7.4	371,063	7.4
55-59	161,766	6.4	166,598	6.6	328,364	6.5
60-65	132,389	5.3	136,891	5.5	269,280	5.4
>65	243,854	9.7	305,771	12.2	549,625	10.9
Total	2,520,662	100.0	2,508,534	100.0	5,029,196	100.0

Race

The following tables show race by gender (**Table 1.2**) and county (**Table 1.3**). It should be noted that population totals presented in Table 1 and subsequent tables may vary slightly due to different data sources.

² Colorado State Demography Office, State Population by Age and Gender, 2010.

Table 1.2 2010 Colorado Population by Race and Gender³

Race	Male	Percent	Female	Percent	Total	Percent
White (Non-Hispanic)	1,756,868	69.7	1,763,925	70.3	3,520,793	70.0
Hispanic	529,799	21.0	508,888	20.3	1,038,687	20.7
Black (Non-Hispanic)	100,158	4.0	88,620	3.5	188,778	3.8
Asian/Hawaiian/Pacific Islander (Non-Hispanic)	64,330	2.6	76,895	3.1	141,225	2.8
American Indian/Alaskan Native (Non-Hispanic)	15,884	0.6	15,360	0.6	31,244	0.6
Two or More Races (Non-Hispanic)	49,808	2.0	51,039	2.0	100,847	2.0
Total	2,520,662	100.0	2,508,534	100.0	5,029,196	100.0

Table 1.3 2010 Colorado Counties Percent of the Population by Race⁴

County	White (Non-Hispanic)	Hispanic	Black (Non-Hispanic)	Asian/PI (Non-Hispanic)	Amer. Indian/ AK Native (Non-Hispanic)	Multiple Races (Non-Hispanic)	Total Population
Adams	53.2	38	2.8	3.6	0.6	1.7	441,603
Alamosa	49.6	46	0.9	0.9	0.9	1.5	15,445
Arapahoe	63.2	18.4	9.7	5.2	0.4	2.8	572,003
Archuleta	78.2	17.8	0.3	0.7	1.4	1.5	12,084
Baca	87.7	9.2	0.5	0.2	1	1.2	3,788
Bent	59	30.5	7.6	0.9	1.4	0.6	6,499
Boulder	79.4	13.3	0.8	4.1	0.4	1.9	294,567
Broomfield	79.4	11.1	0.9	6.1	0.4	1.9	55,889
Chaffee	86.6	9.4	1.5	0.6	0.8	1	17,809
Cheyenne	88.1	9.7	0.4	0.6	0.6	0.7	1,836
Clear Creek	92.1	4.7	0.6	0.6	0.6	1.3	9,088
Conejos	41.8	56	0.1	0.3	0.6	1	8,256
Costilla	30.8	66	0.2	1	0.8	0.9	3,524
Crowley	57.9	29	9.5	1	1.6	1	5,823
Custer	92	4.7	1	0.4	0.5	1.3	4,255
Delta	83	14	0.4	0.5	0.6	1.3	30,952
Denver	52.2	31.8	9.7	3.4	0.6	2.1	600,158
Dolores	90.9	4	0.1	0.2	2.7	2.1	2,064

³ U.S. Census Bureau, 2009 American Community Survey Detailed Tables, Race by Gender.

⁴ U.S. Census Bureau, 2010

County	White (Non-Hispanic)	Hispanic	Black (Non-Hispanic)	Asian/PI (Non-Hispanic)	Amer. Indian/ AK Native (Non-Hispanic)	Multiple Races (Non-Hispanic)	Total Population
Douglas	85.2	7.5	1.1	3.8	0.3	2	285,465
Eagle	67.3	30.1	0.5	1	0.3	0.8	52,197
Elbert	91	5.3	0.7	0.8	0.5	1.6	23,086
El Paso	72	15.1	5.8	3	0.6	3.5	622,263
Fremont	80.4	12.3	3.9	0.6	1.5	1.3	46,824
Garfield	68.8	28.3	0.4	0.7	0.5	1.1	56,389
Gilpin	90.9	4.9	0.5	1.5	0.6	1.4	5,441
Grand	89.7	7.5	0.3	0.9	0.4	1.2	14,843
Gunnison	89.1	8.2	0.3	0.6	0.4	1.3	15,324
Hinsdale	93.2	2.8	0.4	0.4	0.8	1.7	843
Huerfano	61.9	35.3	0.3	0.4	0.8	1.2	6,711
Jackson	87.4	10.8	0	0.1	0.9	0.8	1,394
Jefferson	79.9	14.3	0.9	2.6	0.5	1.6	534,543
Kiowa	93.3	5.6	0.2	0	0.2	0.7	1,398
Kit Carson	76.4	19	2.6	0.5	0.6	0.8	8,270
Lake	58.2	39.1	0.3	0.4	0.6	1.1	7,310
La Plata	80.3	11.8	0.3	0.6	5	1.8	51,334
Larimer	84.5	10.6	0.8	2	0.4	1.7	299,630
Las Animas	54.2	41.6	1.3	0.7	1.1	1.2	15,507
Lincoln	79.5	12.5	5.1	0.7	0.7	1.4	5,467
Logan	78.2	15.6	3.9	0.6	0.8	0.9	22,709
Mesa	83.1	13.3	0.5	0.8	0.6	1.5	146,723
Mineral	95.2	2.9	0.3	0.1	0.6	0.8	712
Moffat	82.7	14.4	0.2	0.6	0.7	1.3	13,795
Montezuma	75.1	11	0.2	0.5	11.4	1.7	25,535
Montrose	77.5	19.7	0.3	0.6	0.5	1.3	41,276
Morgan	61.7	33.8	2.7	0.5	0.4	0.9	28,159
Otero	56.5	40.3	0.5	0.8	0.6	1.2	18,831
Ouray	93.4	4.4	0.1	0.7	0.3	1	4,436
Park	91.6	4.8	0.4	0.6	0.7	1.7	16,206
Phillips	79.4	18.7	0.3	0.7	0.3	0.6	4,442
Pitkin	87.9	9.1	0.5	1.2	0.1	1.1	17,148
Prowers	62.7	35.2	0.4	0.3	0.5	0.7	12,551
Pueblo	54.1	41.4	1.7	0.8	0.6	1.3	159,063
Rio Blanco	86.3	10	0.7	0.5	0.7	1.7	6,666
Rio Grande	55.1	42.4	0.2	0.4	0.9	0.9	11,982
Routt	90.6	6.8	0.4	0.7	0.3	1.1	23,509
Saguache	56.4	40.1	0.2	0.8	1.1	1.3	6,108

County	White (Non-Hispanic)	Hispanic	Black (Non-Hispanic)	Asian/PI (Non-Hispanic)	Amer. Indian/ AK Native (Non-Hispanic)	Multiple Races (Non-Hispanic)	Total Population
San Juan	85.1	12	0	1	0.1	1.4	699
San Miguel	88.5	8.6	0.3	0.8	0.4	1.3	7,359
Sedgwick	85.6	12.1	0.3	0.7	0.3	0.9	2,379
Summit	82.7	14.2	0.7	1	0.2	1	27,994
Teller	90.6	5.5	0.4	0.7	0.7	1.9	23,350
Washington	89.4	8.5	0.6	0.2	0.1	1	4,814
Weld	67.6	28.4	0.8	1.2	0.6	1.4	252,825
Yuma	77.9	20.8	0.2	0.2	0.3	0.5	10,043

Poverty and Income

In 2009, the U.S. American Community Survey estimated Colorado's median household income to be \$56,222 and the state's national poverty ranking was 22nd.⁵ The United States Department of Agriculture estimates the percent of Coloradans living below the poverty level to be 13 percent in 2009. **Table 1.4** shows the percent of population below poverty level per county in 2009.

Table 1.4: Percentage of the Population Under the Poverty Level by County (2009)⁵

County	Percentage Under Poverty Level	County	Percentage Under Poverty Level	County	Percentage Under Poverty Level
Colorado	12.6	Elbert	5.4	Montezuma	16.9
		El Paso	11.5	Montrose	12.8
Adams	13.3	Fremont	18.1	Morgan	14.4
Alamosa	22.2	Garfield	8.6	Otero	13.6
Arapahoe	12.3	Gilpin	7.3	Ouray	8.5
Archuleta	12.9	Grand	8.5	Park	9.1
Baca	18.3	Gunnison	13.4	Phillips	12.4
Bent	37.2	Hinsdale	11.2	Pitkin	6.5
Boulder	12.9	Huerfano	26.9	Prowers	23.1
Broomfield	4.9	Jackson	15.0	Pueblo	16.9
Chaffee	12.0	Jefferson	8.1	Rio Blanco	7.7
Cheyenne	13.4	Kiowa	14.8	Rio Grande	17.0
Clear Creek	8.1	Kit Carson	15.4	Routt	6.4
Conejos	24.5	Lake	13.8	Saguache	30.1

⁵ U.S. Department of Agriculture, Economic Research Service, 2009 County-Level Poverty Rates for Colorado.

Costilla	27.4	La Plata	11.6	San Juan	13.5
Crowley	53.0	Larimer	14.7	San Miguel	10.7
Custer	13.9	Las Animas	18.5	Sedgwick	15.5
Delta	13.9	Lincoln	16.7	Summit	8.7
Denver	18.8	Logan	17.0	Teller	8.2
Dolores	12.4	Mesa	11.8	Washington	12.1
Douglas	3.3	Mineral	10.5	Weld	14.8
Eagle	8.0	Moffat	10.1	Yuma	13.3

Insurance

According to the Kaiser Family Foundation, 17 percent of Colorado's population was uninsured in 2008-2009. This is slightly lower than the U.S. estimate of 19 percent in 2009. **Table 1.5** shows that the percentage of Colorado's population not covered by health insurance was much greater among Hispanics (32 percent) than among Whites (13 percent).

Table 1.5: Percentage of the State Non-Elderly Adults without Health Insurance Coverage by Race and Ethnicity (State Data 2008-2009, U.S. 2009)⁶

Race	Colorado	United States
White (Non-Hispanic)	12.8	14.0
Hispanic	32.4	34.0
Black (Non-Hispanic)	25.8	22.6
Other	18.5	17.9
Total	17.4	18.9

Education

According to the Colorado Department of Education, in 2009 there was a combined public and non-public school enrollment of 832,368 persons in Colorado. School enrollment was comprised of 61 percent White, 28 percent Hispanic, 6 percent Black, 4 percent Asian and 1 percent American Indian. The overall dropout rate in Colorado during the 2008-2009 school year was 3.6 percent. **Table 1.6** shows the percent of the population graduating from high school and college by gender. Compared to other MSAs and the state as a whole, the Boulder MSA had the highest proportion of higher education degrees. The Grand Junction MSA had the highest proportion of high school graduates or GEDs. The Greeley MSA had the highest proportion of the population without a high school diploma or GED.

⁶ Henry J. Kaiser Family Foundation State Health Facts.

Table 1.6: Percentage of Population 25 Years Old and Over, High School Graduates or Higher Degree by Gender and Metropolitan Statistical Areas 2009⁷

Area	No HS Diploma/GED			HS Grad/Equivalent			Higher Degree		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Boulder MSA	7.0	6.2	6.6	13.1	14.5	13.8	63.5	60.6	62.1
Colorado Springs MSA	7.4	7.4	7.4	21.8	24.1	23.0	46.8	42.0	44.4
Denver-Aurora-Broomfield MSA	12.0	11.1	11.5	22.4	22.8	22.6	44.9	43.8	44.4
Fort Collins-Loveland MSA	7.7	5.6	6.7	21.2	21.7	21.4	49.1	49.1	49.1
Grand Junction MSA	11.5	11.1	11.3	33.3	30.1	31.6	31.8	34.5	33.2
Greeley MSA	18.2	14.4	16.3	27.2	27.3	27.2	33.8	35.5	34.6
Pueblo MSA	15.7	14.5	15.0	29.0	29.3	29.2	29.7	31.4	30.6
Colorado	11.8	10.5	11.1	23.7	23.7	23.7	43.4	42.8	43.1
United States	16.1	14.8	15.4	29.2	29.4	29.3	35.0	34.9	35.0

Incarcerated persons

According to the Colorado Department of Corrections, 23,210 persons were incarcerated in 2009. Twenty-two state correctional facilities housed 14,615 inmates, and the remaining 8,595 inmates were housed in contract facilities or county jails. Seven CDOC facilities are located in Fremont County. Colorado's incarcerated population is 12.5 percent female and 87.5 percent male. Racial characteristics of the inmate population are as follows: 44 percent White, 35 percent Hispanic, 17 percent Black, 3 percent American Indian, and 1 percent Asian.⁸

⁷ U.S. Census Bureau, 2009 American Community Survey.

⁸ Colorado Department of Corrections

The HIV/AIDS Epidemic in Colorado

The STI/HIV Surveillance Program at Colorado Department of Public Health and Environment estimates that 11,198 were living with HIV or AIDS as of June 30, 2011. This figure includes only those people diagnosed with HIV in Colorado and believed to be still living; it does not include people diagnosed in other states or people who are living with HIV who have not yet been diagnosed. The data used to develop these estimates is limited; a section describing the limitations on the data may be found on page 11.

Table 1.7 provides the demographic profile of persons diagnosed with HIV in Colorado by June 30, 2011 for whom no death records have been documented. These prevalence data are categorized according to residence inside and outside of the Denver area. Other categories include gender, age group, race/ethnicity, birth origin (inside or outside of the U.S.), year of HIV diagnosis, and disease status (either HIV or AIDS). Males, by far, outnumber females living with HIV/AIDS in Colorado (89 percent versus 11 percent); however the proportion of female cases is somewhat higher outside of the Denver area (15 percent versus ten percent). The majority (65 percent) of all cases are among people over the age of 44, reflecting the current trend of PLWH/A living longer. The mean age is 48 and the median age is 49. African Americans are disproportionately represented among Colorado cases, accounting for 14 percent of the cases compared to only four percent of the state's population. What is not shown in Table 1 is the highly disproportionate representation of African American women among female cases, accounting for 32 percent of those cases. Whites are somewhat underrepresented among all cases, accounting for 64 percent of HIV cases and 70 percent of the population, and white women only represent 42 percent of the female cases. Latino cases are more proportionate to the Latino population numbers (19 percent of cases and 21 percent of the population). Latina women accounted for 22 percent of female cases. Surveillance data show that among all living Colorado cases, 44 percent have a documented AIDS diagnosis.

Men who have sex with men (MSM), including those who also have a history of injection drug use (MSM/IDU), have always dominated the epidemic in Colorado, accounting for almost three quarters (73 percent) of the cases. The proportion of the total cases documented as IDU alone has always been lower in Colorado relative to many other states, currently making up eight percent of the total number of cases, compared to approximately 19 percent nationwide. Documented heterosexual (HET) cases represent 10 percent of all cases. This percentage reflects only HIV positive males who report heterosexual sex as their only risk and for whom there is a documented HIV positive female partner. All other males are included in the "Unknown" transmission category. Cases in this category make up nine percent of all Colorado cases. A closer look at those who are included in this "unknown" category shows that males make up 74 percent, African Americans of both genders 20 percent, Latinos 26 percent, and whites only 47 percent.

Table 1.7: Colorado cases of HIV/AIDS as of June 30, 2011, by geographic location*

	Denver Metro		Non-Denver		All	
	N	%	N	%	N	%
Total	8699	100	2499	100	11,198	100
Sex at Birth						
Male	7816	90	2117	85	9,933	89

	Denver Metro		Non-Denver		All	
	N	%	N	%	N	%
Female	883	10	382	15	1,265	11
Age Group						
<15	23	<1	8	<1	31	<1
15 - 19	13	<1	9	<1	22	<1
20 - 24	122	1	41	2	163	1
25 - 34	867	10	250	10	1,117	10
35 - 44	1920	22	561	22	2,481	22
45 - 64	5280	61	1489	60	6,769	60
65 and over	474	5	141	6	615	5
Race/Ethnicity						
White	5575	64	1626	65	7,201	64
Latino	1592	18	481	19	2,073	19
Black	1313	15	307	12	1,620	14
Other	170	2	66	3	236	2
Unknown	49	1	19	1	68	1
Race/Ethnicity by Birth Origin***						
White US Born	5482	63	1598	64	7080	63
Hispanic US	1138	13	319	13	1457	13
African American US Born	1018	12	262	10	1280	11
Hispanic Non-US	454	5	162	6	616	6
African Non-US Born	295	3	45	2	340	3
Other US born	160	2	68	3	228	2
Other Non-US Born	152	2	45	2	197	2
Year of HIV Diagnosis						
Before 1990	2184	25	510	20	2,694	24
1990 - 1995	1979	23	597	24	2,576	23
1996 - 2000	1316	15	442	18	1,758	16
2001 - 2005	1476	17	431	17	1,907	17
2006 - 2011	1725	20	512	20	2,237	20
Unknown	19	<1	7	<1	26	<1
Disease Status						
HIV	4955	57	1324	53	6,279	56
AIDS	3744	43	1175	47	4,919	44
Documented Transmission Category**						
MSM	5828	67	1361	54	7,189	64
HET	808	9	283	11	1,091	10
MSM & IDU	748	9	201	8	949	8
IDU	561	6	287	11	848	8
Perinatal	35	<1	18	1	53	<1
Other	30	<1	14	1	44	<1
Unknown	689	8	335	13	1,024	9

*These figures include all HIV cases diagnosed in Colorado for which no mortality information has been documented.

** All percentages have been rounded to the nearest whole percent and may not equal 100%.

*** The country of origin was not systematically collected for cases diagnosed before the implementation of HARS, and may not accurately reflect the origin of these cases.

Table 1.8 displays Colorado incidence data on persons diagnosed with HIV from January 1, 2006, to December 31, 2010. One difference between the more recent data as compared to the prevalence data is that it includes a somewhat higher proportion of female cases (14 percent versus 11 percent). Another is seen in the age groups, with 58 percent of all of the newer cases falling into the 25 to 34 and 35 to 44 year age groups. The mean age of those diagnosed within that five-year period was 40 and the median age was 39. Among race/ethnic groups, African Americans are even more overrepresented at 17 percent (over four times their proportion of the population), and African American females accounted for 44 percent of all female cases (11 times their proportion of the population). The proportion of Latino HIV cases exceeded Latino population proportions by five percentage points at 26 percent, with Latina females at 24 percent of all female cases. Another difference is in the higher proportion of foreign-born cases in the incidence data at 16 percent. Within the documented transmission categories, MSM and MSM/IDU make up a smaller percentage of the total at 69 percent, and IDU alone were down to five percent. Documented heterosexual cases were up to 15 percent and those with unknown risk were up to 12 percent of the incident cases.

Table 1.8: Colorado cases of HIV diagnosed between 2006 – 2010 by geographic location

	Denver Metro		Non-Denver		All	
	N	%	N	%	N	%
Total	1650	100	515	100	2,165	100
Sex at Birth						
Male	1423	86	430	84	1,853	86
Female	227	14	85	17	312	14
Age Group						
<15	14	1	5	1	19	1
15 - 19	5	<1	1	<1	6	<1
20 - 24	95	6	31	6	126	6
25 - 34	499	30	152	30	651	30
35 - 44	484	29	131	25	615	28
45 - 64	509	31	179	35	688	32
65 and over	44	3	16	3	60	3
Race/Ethnicity						
White	842	51	305	59	1,147	53
Latino	435	26	128	25	563	26
Black	312	19	63	12	375	17
Other	61	4	19	4	80	4
Birth Origin						
White US Born	831	50	300	58	1131	52
Hispanic US	304	18	78	15	382	18
African American US Born	196	12	48	9	244	11
Hispanic Non-US	131	8	50	10	181	8
Black/African Non-US Born	116	7	15	3	131	6
Other US born	40	2	11	2	51	2
Other Non-US Born	32	2	13	3	45	2
Disease Status						
HIV	977	59	303	59	1,280	59
AIDS	673	41	212	41	885	41
Documented Transmission Category						

	Denver Metro		Non-Denver		All	
	N	%	N	%	N	%
MSM	1068	65	287	56	1,355	63
HET	243	15	74	14	317	15
MSM & IDU	92	6	31	6	123	6
IDU	71	4	28	5	99	5
Perinatal	11	1	3	1	14	1
Other	-	-	1	<1	1	<1
Unknown	165	10	91	18	256	12

* All percentages have been rounded to the nearest whole percent and may not equal 100%.

Limitations of the data

Although a wealth of information was gathered through the data collection methods used in this needs assessment, all assessments have limitations, especially those concerning the degree to which the sample of respondents is representative. The sample of participants who completed the survey for this study was predominantly made up of clients receiving ADAP services or services provided by ASOs and should not be considered representative of all PLWH in Colorado. Although interviews were conducted with fifteen people who had spent substantial periods of time out of care, the greatest limitation in this particular study can be seen in the low level of participation of people who were not currently receiving medical care and other related services. This was especially the case among survey respondents living outside of the Denver area. Future needs assessments should place an emphasis on gaining more perspective from people who are not getting the medical care and other assistance they need. People who were better off financially and who had private health insurance were also underrepresented given that they would likely not have received a survey sent to ADAP and ASO clients. Also, only the information provided by those who responded to the survey and those PLWH who agreed to participate in the interviews could be incorporated in this report. Some who did participate in interviews may have altered their responses out of concern for being judged or jeopardized in some way. Furthermore, approximately three percent of the survey respondents did not provide their county of residence or zip code. Data from these surveys were included with the data on non-Denver residents, making up about nine percent of the non-Denver total. This potentially could have skewed the information somewhat.

The STI/HIV Surveillance Program at CDPHE provided aggregate data used for this study. These data are also inherently limited in that they are dependent on reporting by laboratories and providers within Colorado and by health departments across the country. The surveillance database is not intended to monitor the current locations of Colorado cases, but information is updated as it is received. PLWH frequently move between states and do not necessarily access care when they do or do not access it right away. Therefore, in these cases, no reporting occurs until care is accessed and reports from the new state of residence are sent. Some PLWH who were originally diagnosed with HIV in Colorado may pass away in other states, the records of which may not get back to the Surveillance Program in a timely manner. All of this makes it difficult to have an accurate count of the number of PLWH living in Colorado at any given time. Another limitation stems from the fact that the only consistent indicator that a person is in care is through the reporting of viral load and CD4 tests. Although other indicators of care are available to CDPHE, they are not available for all PLWH living in the state. Additionally, viral load tests for people currently living in the state who were originally diagnosed with HIV in other states

are not included in the Colorado statistics. Given these circumstances, current data are not available for a large number of the people considered as Colorado HIV cases, making it especially difficult to assess the total number of people currently living with diagnosed HIV in Colorado and the number of people not receiving HIV care. An additional limitation of the surveillance data is that address data were not systematically entered into HARS prior to 2007.

Chapter 2 — HIV-Related Services Provided in Colorado

The Ryan White funded system in Colorado consists of agencies and clinics supported with Part A, B, C, D, and F funding.

Services Supported with Part A Funding

Part A in Colorado funds services for residents of the Denver TGA, which includes Adams, Arapahoe, Broomfield, Denver, Douglas, and Jefferson counties. Funded services are:

- AID drug assistance (local)
- Outpatient ambulatory care
- Oral health care
- Early intervention services
- Health insurance premium and cost sharing assistance
- Home health care
- Home and community based services
- Mental health services
- Medical case management
- Outpatient substance abuse treatment
- Emergency Financial Assistance
- Food bank
- Housing
- Medical transportation

Services Supported with Part B Funding

Part B in Colorado funds agencies and clinics statewide, but primarily targets areas outside of the Denver TGA. Part B manages the AIDS Drug Assistance Program (ADAP) and programs to help clients with the costs of health insurance. Part B also manages “Bridging the Gap, Colorado,” a state pharmaceutical assistance program that pays for premiums, co-payments, and other costs for people who have a Medicare Part D prescription drug plan and sustains client access to prescribed medications while they are in the Part D “coverage gap.”

Through this funding, the following services were made available with Part B funding in the year that ended December 31, 2011:

- AID drug assistance, including assistance with insurance and Medicare costs
- Outpatient ambulatory care
- Oral health care
- Early intervention services
- Mental health services
- Medical nutrition services
- Medical case management

- Outpatient substance abuse treatment, including screening, brief intervention, brief therapy, referral to treatment, and provision of treatment
- Nonmedical case management
- Emergency Financial Assistance
- Food bank
- Health education/risk reduction
- Housing
- Linguistic services
- Medical transportation
- Outreach
- Psychosocial support services
- Referral
- Adherence counseling
- Specialized outreach and education for minority populations

Services Supported with Part C Funding

There are four medical providers supported with Part C funding in Colorado.

St. Mary's Hospital and Medical Center provides comprehensive primary and specialty HIV care to people living with HIV/AIDS in western Colorado, as the HIV primary and specialty care services provider in the 22 county region of western Colorado. Care is delivered in accordance with the most current national treatment guidelines. HIV experts from the Infectious Disease Group at the University of Colorado Denver travel to Grand Junction twice a month and Durango quarterly to provide HIV specialty care in conjunction with a local primary care physician. The Western Colorado Part C Clinic saw 228 unduplicated patients in 2010, a 5 percent increase from 2010. Services provided include oral health care, mental health care, counseling and testing, case management, general and preventive health education, and medication adherence on-site with nutrition consultations. While St. Mary's is a comprehensive primary care clinic, they refer patients outside the clinic for medications, some substance abuse treatment, and specialty services such as surgery, dermatology, and gastroenterology to name a few.

Pueblo Community Health Center's (PCHC) mission to provide primary health care to those in need, is enhanced with their Ryan White Part C grant. This grant allows PCHC to provide outpatient early intervention and primary health care services for HIV positive persons residing in seventeen counties of southeastern Colorado: Pueblo, Alamosa, Baca, Bent, Chaffee, Conejos, Costilla, Crowley, Custer, Fremont, Huerfano, Kiowa, Las Animas, Otero, Prowers, Rio Grande and Saguache. HIV/AIDS Care at Pueblo Community Health Center includes: primary health care and services; medical case management; perinatal care; preventive, developmental and diagnostic services for infants and children; diagnostic laboratory and radiology; referrals to specialty care; HIV testing and counseling; pharmaceutical services; oral healthcare; outpatient substance abuse therapy and counseling; outpatient mental health care; nutritional counseling; drug treatment adherence counseling; HIV prevention education with HIV positives;

coordination and follow-up after hospital care; 24-hour coverage; and coordination of services with community organizations serving those living with HIV/AIDS.

The HIV Primary Care Clinic at Denver Health provides comprehensive HIV primary care and other services as outlined in the HHS guidelines as their first priority. Addressing maintenance of active patients in care (so more focus on following up with patients who do not call or show up for scheduled appointments) is an additional priority. The HIV PCC has begun to incorporate Hepatitis C services into their clinic. Comprehensive mental health assessment and treatment is available in the clinic. Referral to outpatient services for substance abuse is routinely done in the clinic. Primary and secondary prevention is an additional focus of their clinical work. HIV PCC provides some testing and counseling services which have an additional goal of prevention; they also provide free condoms to their patients and other patients at Eastside Health Clinic. Referrals to other service providers are an essential part of the services in the clinic.

In Denver, the Part C clinic funds a part-time Linkage to Care coordinator in the Part A program, which helps facilitate rapid and seamless enrollment of new clients. The rest of the coordinator's time is spent providing outreach to patients lost to follow-up and providing appointment reminder calls. An automated list of patients without a visit in the prior six months is generated monthly, and patients who do not present for routine laboratory follow up in the appointed time are also identified for outreach, even if it falls within a six-month window.

The process at the HIV Primary Care Clinic is the same as for the Part A clinic at Denver Health: clients undergo financial screening yearly by enrollment specialists. While most clients receive a rating through the Colorado Indigent Care Program (CICP), the specialists identify whether patients are eligible for coverage through Medicare, Medicaid, private insurance, or veterans' benefits. If changes in status occur between screenings, the Licensed Clinical Social Worker assists with application and transition to these other programs.

At the HIV Primary Care Clinic in Denver, nurse intakes incorporate mental health and substance abuse screening and include standardized tools such as the PHQ-9 depression score and SBIRT. All new clients are then referred for psychiatric assessment by the clinic therapist, utilizing an opt-out approach. Appropriate patients are further referred to the staff psychiatrist. Primary care physicians screen their clients for substance abuse at all subsequent non-urgent clinic visits.

At the Denver PCC Clinic, almost all clients meet with their Medical Case Manager, receiving a comprehensive psychosocial assessment and individualized care plan. The physician and Medical Case Manager may refer the client to additional services and community-based organizations as necessary and desired. Clients of the highest complexity and/or need are discussed during a monthly interdisciplinary care conference attended by the primary physician, psychiatrist, therapist, nurse, medical assistant, dietician, and medical case manager.

The Part C program at Denver Health utilizes a robust electronic health record and data warehouse to track and improve multiple quality measures. Automated queries produce monthly reports on nearly all of the HRSA HAB quality measures. Bimonthly QI Workgroup meetings are used to strategize and improve these measures using the PDSA model.

There are two HIV Primary Care Specialists supported with Part C funding at the Beacon Center for Infectious Disease (BCID). The Beacon Center of Boulder Community Hospital provides comprehensive primary and specialty HIV care to people living with HIV/AIDS in Boulder, Broomfield, Clear Creek, Gilpin, Larimer, and Weld County Colorado. BCID is the only Part C funded HIV primary and specialty care provider in the region. The BCID providers maintain their HIV specialist credentialing through the American Academy of HIV Medicine, and provide care utilizing the most current Department of Health and Human Services HIV treatment guidelines. The Beacon Center for Infectious Disease Part C Clinic saw 335 unduplicated patients in 2011, a 6 percent increase from 2010. Services include all Ryan White early intervention and core services, including outpatient/ambulatory care, and specialty care via referral (e.g., dermatology, cardiology, nephrology, endocrinology, urology, neurology, ophthalmology, oral health, HIV specific nutritional counseling, general surgery, etc.) The Clinic also provides treatment for co-infected patients with Hepatitis C.

Additionally, the Clinic provides Part B funded onsite medical case management with a Licensed Clinical Social Worker (LCSW), who provides all adherence, outreach, and Screening, Brief Intervention, Referral to Treatment (SBIRT) services. BCID facilitates Case Consultations with local AIDS Service Organizations for mutual clients/patients to address care related issues with its HIV+ population. The Clinics services include enrolling eligible patients into financial assistance programs (e.g., Colorado Indigent Care Program, internal Sliding Scale services, AIDS Drug Assistance Programs, Medicaid, Medicare, etc.) Pharmacy services provided via 340b contract through the Apothecary pharmacy with extensive experience in working with PLWH/AA. The clinic also provides transportation assistance in the form of gas cards for patients and funds allocated directly to the rural Northern Colorado AIDS Project.

The Beacon Center provides onsite mental health counseling at the Beacon Center and Mapleton Counseling Center by LCSW and MA staff. The onsite HIV experienced psychiatrist that works one-day per week at the clinic. Behavioral health and substance abuse services are supported by Part B funds at Boulder Community Hospitals Outpatient Mapleton Counseling Center. The clinic has 24-hour on-call physicians available for afterhours and weekends.

Services Supported with Part D Funding

Ryan White Part D funds care for women, infant, children, and youth (WICY) through the Children's Hospital Immunodeficiency Program (CHIP). CHIP is the only program in the Rocky Mountain Region specifically dedicated to providing HIV care and outreach for infants, children, youth, young adults and women. CHIP served 332 children, youth and women in 2011, including following 32 indeterminate infants. CHIP serves all patients regardless of their ability to pay or their immigration status.

Part D currently supports:

- HIV comprehensive care to youth and young adults (13-24) based both at Children's and Denver Health.
- Comprehensive care for infants and children and families living with HIV infection.

- Comprehensive care for HIV pregnant women and their infants, including direct HIV and antepartum care, coordination of labor and delivery services, and education and support to regional and statewide providers in order to screen and treat pregnant women living with HIV, with the goal of preventing transmission of HIV to the infant.
- Core support and other support services provided in conjunction with medical services
- Region-wide programs for prevention and screening to at-risk youth.

The target area for services supported by the Part D grant is the Colorado Front Range which includes the Denver metropolitan area as well as counties extending north and south of Denver, encompassing the majority of WICY living in Colorado. However, since CHIP is the only program with comprehensive perinatal and pediatric HIV care programs in the Rocky Mountain region, CHIP also provides direct and/or consultative medical care and support services for children and pregnant women living throughout the Colorado and neighboring states. Part D supports CHIP to provide technical assistance and capacity building requests for HIV/AIDS services organization serving children, youth and women. Care for WICY is provided at several sites including Children's Hospital Colorado (CHC), University of Colorado Hospital (UCH), Denver Health Medical Center (DHMC), Southern Colorado AIDS Project (SCAP), and youth-serving outreach sites throughout the Denver metro area.

*Comprehensive, multi-disciplinary, family-centered care—
Infants, Children, Youth care*

Multidisciplinary care for infants, children, youth, and pregnant women is provided at the Children's Hospital Colorado (CHC), a primary and tertiary care facility located at the center of the Denver metropolitan area and easily accessible from the other cities in the state. Fully-staffed multi-disciplinary clinics are held weekly with daily clinics for urgent needs or to accommodate clients' schedules. Medical care and medical case management is provided in tandem at the same visit. The clinic is staffed by a cadre of physicians (pediatricians, internists, adolescent medicine, infectious disease), mid-level providers, nurses, and on-site specialists (mental health counselor, dietician, pharmacist; developmental psychologists) who provide state-of-the-art HIV medical care. Additional specialists are available by consultation within the facility (eg. neurologist; pulmonologist; gastroenterologist; dentist, adolescent gynecology). Several clinics at CHC are devoted solely to HIV-infected youth. These clinics provide primary health care, HIV specialty care, and sexual health care. The youth client is seen in tandem by either a physician or mid-level provider and a youth-trained social worker, which allows the team to seamlessly address the medical and psychosocial aspects of care. Staff assess housing, finances, mental health, and sexual risk at each visit. Substance abuse is assessed semi-annually by the SBIRT screening tool and followed up by the more comprehensive ASSIST questionnaire, with subsequent counseling or referral to our mental health specialist as appropriate.

In addition to the youth care provided at CHC, a Part D subcontract funds a satellite clinic located at Denver Health Medical Center (DHMC). This clinic serves youth who reside near DHMC which is in the center of Denver. This specialized youth clinic occurring twice monthly is staffed collaboratively by CHIP and DHMC providers and a CHIP medical social worker. A Part D supported DHMC practitioner is the youth's day-to-day primary care provider.

Pregnancy

CHIP provides direct care to pregnant women including antiretroviral treatment specialized for pregnancy as well as antepartum assessments and case management. Visits are combined whenever possible with the mother's visit with an obstetrical provider or, in some cases the CHIP provider will travel to the High Risk obstetrical clinic to facilitate care. An interim summary is prepared and sent to the delivery site after each visit in order to assure delivery and newborn care are coordinated. The majority of women deliver at UCH or DHMC where CHIP supports obstetric providers with HIV expertise. For women residing outside the Denver metro area the CHIP provider and pharmacist communicate with the delivery site to insure that the perinatal and postnatal period is handled optimally in terms of drugs administered, diagnostic procedures, and care of the newborn.

CHIP maintains a program for providing and updating education concerning management of these women to obstetrical hospitals and providers in our service area. This emphasizes early diagnosis, referral, and treatment. Ten training sessions were provided in the metro Denver and Colorado Front Range in the past year to nurses, physicians, and pharmacists on current perinatal guidelines and the local Hotline. Outreach and networking occurs with the local refugee health program to explain services available for women and families. A Perinatal HIV Consult Line insures that callers connect, 24 hours a day, to CHIP regarding any perinatal HIV questions or needs. These efforts facilitate timely entry into care during pregnancy (and proper management).

Reproductive Counseling

This program (*HOPE*) for pre-pregnancy planning leads to safe conception in discordant couples and reduces the risk of super-infection in dually-infected couples. Since its inception HOPE has counseled 72 clients. All babies were born uninfected.

Women's care

CHIP is seeking Part D funds to begin a new collaboration with the Infectious Disease Group Practice (IDGP) sited at the University of Colorado Hospital (UCH). This expansion of the Part D project will increase care for women who are over age 25yr (non-youth) and non-pregnant. Part D will support an infectious disease physician with expertise in women's care and a CHIP women's medical social worker will be embedded in the IDGP clinic.

Other Core and Support Services

Part D funds medical case management, mental health, substance use screening, medical transportation, developmental assessments, translation services, permanency planning, child care, and concrete needs emergency assistance for CHIP clients. These services are available to clients seen at any of our clinics. In addition, to facilitate care for WICY living in southern Colorado, Part D subcontracts with an AIDS service organization (Southern Colorado AIDS Project) located in Colorado Springs. This agency provides medical case management and medical transportation for WICY living in their catchment area.

HIV testing, Outreach, linkage to care, engagement in care

Part D provides some support for CHIP's robust youth outreach program that provides counseling and testing for youth aged 13 to 24 at metro-wide community-based agencies which receives some support from Over 1200 youth received HIV testing through its permanent and diverse outreach sites (19 sites) and at 5 community events that CHIP managed and/or supported

in 2011. In 2011 the CHIP Youth Project (CYP) tested 1,195 youth through at 19 diverse outreach sites that CHIP manages and supports. Six positive tests were confirmed and each person was linked to care. Furthermore, CHIP provided HIV testing to over 175 youth at the CHIP-supported Youth Alley during Pridefest 2011 and at 4 other events (35 tests); one youth was identified and linked to care. The emergency rooms at UCH and Denver Health Medical Center (DHMC) as well as the Denver Public Health Department refer newly identified youth to CHIP's youth program. Linkage is facilitated by CHIP's youth outreach worker who will meet newly diagnosed patients and bring him/her to clinic to begin their care. Through these efforts, CHIP enrolled 37 new youth into care in 2011.

Services Supported with Part F Funding

The Part F Community-Based Dental Partnership Program (CBDPP) is housed at the University of Colorado School of Dental Medicine (UCSDM) on the Anschutz Medical Campus. Nationally, the CBDPP was first funded in FY 2002 to increase access to oral health care services for HIV-positive persons while providing education and clinical training for dental care providers, especially those located in community-based settings. To achieve its goals, the CBDPP works through multi-partner collaborations between dental and dental hygiene education programs and community-based dentists and dental clinics. Community-based program partners and consumers help design programs and assess their impact.

The statewide, multi-site Colorado Ryan White Community-Based Dental Partnership Program, established in August 2002, is unique among the 13 CBDPP nationwide. The collaborative partners include the University of Colorado School of Dental Medicine, the Colorado AIDS Education and Training Center (CAETC) and UCSDM community-based clinical education sites located near Ryan White medical care clinics, thus enhancing comprehensive care and coordinated services for the majority of CO HIV patients. The four community-based dental partners in targeted underserved areas of Colorado are the Marillac Clinic on the Western Slope, the Pueblo Community Health Center in Southern Colorado, Longmont Salud Clinic in Central Colorado, and the Howard Dental Center in Metropolitan Denver. The grant also has allowed the UCSDM general practitioner residents based in the Sands House Clinic to become the referral center for tertiary dental care from all of the Community-Based Dental Partners.

One of the greatest national healthcare workforce shortage areas is oral care, which holds true in CO as well. HIV consumer surveys consistently report that oral care is a high priority service need, but one that is more difficult to access than many other services. This is generally understood as a provider shortage issue. The CBDPP is intended to expand the HIV oral care workforce, and thus access to care for patients, through enhancing HIV oral care skills of their staff as well as participating in student and resident training.

With growing attention to the number of individuals who are living with HIV infection, but are unaware of their status, CBDPP dental programs are strengthening linkages to local HIV testing programs and, in some cases, assessing the feasibility of implementing HIV testing in dental settings. This will likely be diagnostic testing recommended when oral signs and symptoms are consistent with HIV infection.

Services Provided by the AIDS Education and Training Center (AETC)

The Colorado AETC (CAETC), a local performance site of the Mountain Plains AETC, is a major provider of HIV education, consultation and technical assistance for clinicians and health care organizations in Colorado. The focus of the program is to train clinicians to deliver quality HIV care to PLWHA and to serve as a resource on HIV/AIDS.

Specific Colorado AETC educational objectives include:

- Conducting educational encounters with targeted and hard-to-reach providers
- Conducting advanced clinical training for targeted providers
- Facilitating clinical consultations regarding various HIV care issues
- Developing, revising, and distributing original enduring materials on HIV-related topics
- Serving as an HIV care capacity building resource, including for community health centers and patient centered medical homes

AETC provider training places emphasis on:

- Targeted providers: physicians, physician assistants, nurse practitioners, nurses, dentists, hygienists, and pharmacists
- Providers serving minority populations, rural areas, and Ryan White funded sites.
- Varied topics including risk assessment, HIV testing, HIV care setting prevention education, post-exposure prophylaxis, comprehensive care and treatment guidelines, antiretroviral therapy, and co-morbid conditions, including hepatitis, mental health and substance use
- Interactive and creative teaching methods
- On-site training based on local needs
- Addressing cultural competency and incorporating culturally guided interventions
- Workforce development to address the limited number of providers who are educated to provide HIV care
- Health professions student training
- Other activities consistent with the National HIV/AIDS Strategy and shifting health care environment

The Colorado AETC collaborates with other programs around a variety of initiatives, including:

- The Minority AIDS Initiative (MAI) testing capacity project on the Western Slope.
- The Federal Trainings Centers Collaborative (FTCC), including the Denver Prevention and Training Center, the JSI Reproductive Health Training Center, the National Native American AIDS Prevention Center, the Hepatitis and Addiction Technology Transfer Centers, and the Rural Center for AIDS Programming.
- The Colorado Department of Public Health and Environment in implementation of CDC's HIV testing expansion designation for Colorado.

A Colorado AETC goal is to initiate, expand, and enhance QI programs to improve training capabilities. Specific QI improvement areas include: training capacity and effectiveness;

consistency of training curricula/materials with DHHS treatment guidelines; impact of training on practice behavior; and assuring cultural competency of training materials, curricula and faculty.

Other Publicly-Funded Services for PLWH/A in Colorado

Primary and specialty health care through Medicaid

In Colorado, PLWH/A may be eligible for a special waiver program, called the “Home and Community Based Services Waiver for Persons Living with AIDS” or “HCBS-PLWA” waiver. To qualify for this waiver, PLWH/A must meet the eligibility criteria for one of the Medicaid program categories; the waiver can then expand the benefit available to them. The most common category under which PLWH/A qualify for Medicaid is known as “Aid to the Needy Disabled.”

If the client is under the age of 64 and does not have dependent children, the client must be determined blind or disabled by the Social Security Administration (SSA) standards. Clients deemed eligible for Supplemental Security Income (SSI) from SSA automatically receive Medicaid.

To qualify for a waiver, the applicant's income must be less than \$1,986 (300 percent, or three times, the SSI allowance) per month and countable resources less than \$2,000 for a single person or \$3,000 for a couple. The applicant must also be at risk of placement in a nursing facility, hospital, or ICF/MR (intermediate care facility for the mentally retarded). To utilize waiver benefits, clients must be willing to receive services in their homes or communities. A client who receives services through a waiver is also eligible for all basic Medicaid covered services except nursing facility and long-term hospital care. When a client chooses to receive services under a waiver, the services must be provided by certified Medicaid providers or by a Medicaid contracting managed care organization. The cost of waiver services cannot be more than the cost of placement in a nursing facility, hospital, or ICF/MR.

The primary purpose of the HCBS-PLWA waiver is to provide a home or community based alternative to hospital or specialized nursing facility care. The medical criterion is that the client requires nursing facility or hospital level of care. For those who qualify under HCBS-PLWA, the available services (above and beyond those generally available under Medicaid) are: adult day services, personal emergency response system, homemaker services, non-medical transportation, personal care, and private duty nursing.

Some PLWH/A qualify for an alternative waiver, called the “HCBS Waiver for Persons who are Elderly, Blind, and Disabled.” Many PLWH/A chose this waiver over the HCBS-PLWA waiver because the list of services is more inclusive, including: adult day services, alternative care facilities, community transition services, consumer directed attendant support, personal emergency response system, home modifications, homemaker services, in-home support services, non-medical transportation, personal care, and respite care.

According to the Kaiser Family Foundation, in 2008 (the most recent year for which data is available) 71 PLWH/A participated in the HCBS-PLWA waiver program. The total per-participant cost was \$7,408. An additional 696 PLH/A received Medicaid through other plans.

For example, they may qualify for Medicaid because they are receiving Supplemental Security Insurance (SSI) or they may qualify for family Medicaid because they have dependent children. Overall, Colorado Medicaid spending on enrollees in 2007 was \$14.3 million or \$18,718 per capita.⁹

An expansion of Colorado Medicaid is underway, with major implications for PLWH/A. A combination of funding from a hospital provider fee and a federal match from Medicaid has allowed for the development of two new plans: buy in for working disabled people and coverage for adults without dependents. The buy in program allows disabled, working people to have access to the standard Colorado Medicaid benefit package by paying a monthly premium which ranges from \$0 to \$200, depending on annual income. Subsidy from Ryan White for premiums and copayments is allowed on an unlimited basis by Colorado Medicaid. However, to qualify as disabled, a person must meet medical criteria established by the Social Security Administration, meaning that many people with HIV whose condition is stable will qualify. The second program, for adults without dependents, is initially being offered only to people at or below 10 percent of federal poverty, and it will be capped at 10,000 enrollments. Although this coverage could benefit many PLWH/A (including the majority of people on Colorado ADAP), the demand for the limited slots is likely to leave many PLWH/A applicants on waiting lists for many months or years.

For those who can qualify and enroll, Colorado Medicaid does cover a substantial portion of the medical needs of a person living with HIV, including: physician visits, podiatry services, nurse practitioner services, licensed psychologist services, nurse midwife services, outpatient substance abuse treatment, limited inpatient psychiatric services, prescription drugs, telemedicine services, prenatal care services, limited case management, immunizations, hospice services, lab and x-ray, private duty nursing services, inpatient hospital services, outpatient hospital services, emergency services, residential child health care services, family planning services, nursing facilities services, optometrist services, home health services, eyeglasses for adults after eye surgery, durable medical equipment and disposable supplies, physical, occupational and speech therapy, and medical transportation.

Housing Opportunities for People with AIDS (HOPWA)

Federal HOPWA (Housing Opportunities for People with AIDS) funding provides HIV/AIDS specific housing assistance and related supportive services in communities across Colorado and the nation. Working in partnership with community based-organizations, these funds are generally appropriated and disbursed at a Federal level. Additionally, these funds then channel down through state and local governments such as the State of Colorado and The City of Denver.

On a broad scale, HOPWA funds may be used to meet a variety of low-income housing and development objectives. These objectives include, but are not limited to, the acquisition, rehabilitation, or development of new construction intended supplement the limited supply of existing affordable housing units specifically intended to reduce the incidence of homelessness, and provide much needed stability to those living in our communities with HIV/AIDS.

⁹ <http://www.statehealthfactsonline.org/>

In the Denver EMSA (Eligible Metropolitan Statistical Area), the City and County of Denver's Office of Economic Development administers HOPWA funds for all the local area AIDS Service Organizations (ASO's), including several medical case management agencies. Services provided in the EMSA include: PHP (permanent housing placement/deposit) assistance, STRMU (short term mortgage and utilities) assistance, TBRA (tenant based rental assistance), subsidized HOPWA units, residential housing with supportive services for the chronically homeless, day shelter and medication adherence services for homeless people living with HIV/AIDS, housing development, and a variety of general supportive services. Respectively, STRMU and PHP funds are most often used to prevent evictions and assist with deposits. Additionally, the Denver EMSA has established a successful Single Payer system to track HOPWA and Ryan White (RW) Part A emergency housing expenditures, and reduce the duplication of services.

For Colorado service areas outside of the Denver EMSA, the HOPWA grantee is the Division of Housing in the Colorado Department of Local Affairs. The Colorado HOPWA formulary funds assistance program is known as CHAMP. The Colorado fiscal agent for HOPWA is CAP (Colorado AIDS Project), which collaborates with local case management agencies to distribute funds where they are needed on both a local and a statewide level.

Statewide, HOPWA funds generally provide similar opportunities and assistance. Clients apply for these funds through Ryan White funded service providers. To be eligible for direct HOPWA assistance those living with HIV/AIDS must be actively case managed, and have an annual household income of no more than 80 percent of the area median income. Clients receiving HOPWA TBRA pay no more than the highest of 30 percent of their adjusted household income, 10 percent of their gross income, or a housing allowance as designated by a public welfare agency. Any client receiving rental assistance must be in a housing unit that charges at or below the Fair Market Rent (FMR) schedule as set forth by HUD.

For the most current funding period 1,258 Colorado clients had received some level of support through HOPWA.

Colorado's HIV/AIDS Health Care Providers

The vast majority of people living with HIV or AIDS in Colorado receive their care from less than 100 physicians and other health care professionals. The major practices serving PLWH/A are shown in **Table 2.1**.

Table 2.1 – Major Medical Practices Serving PLWH/A in Colorado

Practice Name	Provider Names	On-site clinics	Jurisdiction Limits
APEX Family Medicine	MD: Scott, Mohr, Young, PA: Carter,	Denver	Statewide
Beacon Center for Infectious Disease	MD: King, Pujet, Roa, Turner NP: Maltzman	Main clinic in Boulder, with periodic clinics in Fort Collins and Greeley	Residents of Boulder, Broomfield, Clear Creek, Gilpin, Larimer, and Weld counties
Boulder Medical Center	MD: Brandt	Boulder	Statewide ?
Children's Hospital Immunodeficiency Program	MD: Reiriden, Abzug, Levin, McFarland, Weinberg NP: Barr, Witte, Kennedy, Dunn, Paul, Kinzie	Main facility is in Aurora; periodic clinics at Denver Health	Statewide
Clinica Tepeyac	MD: Burman	Denver	Statewide

Practice Name	Provider Names	On-site clinics	Jurisdiction Limits
	PA: Hansen		
Colorado Infectious Disease Associates	MD: Kaufman, Ku, Eison, Pawlowski, Tilquist	Denver	Statewide
Colorado Springs Health Partners	MD: Silveria NP: Parres	Colorado Springs	ElPaso Co, surrounding area
HIV Primary Care Clinic at Denver Community Health	MD: Blum (J), Adams, Ginosar	Denver	Statewide for those eligible for Medicaid and Children's Health Plan Plus; others must be Denver residents
Denver Health Infectious Disease Clinic	MD: Burman, Belknap, Thrun, Gardner, Reves, Fukutaki PA: Logan NP/RN: Caraway, Ingrand, Sampson, Schimmel	Denver	Statewide for those eligible for Medicaid and Children's Health Plan Plus; others must be Denver residents
Denver Infectious Disease Center Consultants	MD: Greenberg, Hammer NP: Young, Kressy	Denver	Statewide
Family Centered Medicine	NP: Prutch	Denver	Statewide
Front Range PC	NP: Mack		
Four Corners Infectious Disease	MD: Salka	Durango	SW CO
Infectious Disease Consultants	MD: Blum (R), Terra, Gill, Drummond NP: Perrett	Denver	Denver
Infectious Disease Specialists	MD: Brookmeyer, Hackenberg, Hofflin, Kleiner, Strandberg, Weber, Gates	Colorado Springs	Statewide
Kaiser Permanente Infectious Disease Practice	MD: Bruce, Edell, Kuhns, Mogyoros RN: Bridge	Main infectious disease practice is in Downtown Denver, but PLWH/A may receive primary care in other Kaiser offices	Must reside in specific portions of Adams, Arapahoe, Boulder, Clear Creek, Denver, Douglas, Elbert, El Paso, Gilpin, Jefferson, Larimer, Park or Weld counties
MCPN (Metropolitan Community Provider Network)	PA: delArmi MD: Amador, Arami, Barker, Barter, Castillo-Mancilla, Creech, Ferrer, Gehred, Martin, Mathad, McLean, Mockler, Munoz, Parmar, Perna, Reddy, Saproo, Schlegel, Tellez)	Arapahoe, Jefferson, Adams, and Park Counties and the cities of Lakewood and Aurora	Must reside in Arapahoe, Jefferson, Adams, or Park counties
Mountain Family Health Center	MD: Mizner	Glenwood Springs	CHC for Garfield Co.
National Jewish Health HIV Clinical and Research Program	MD: Huitt, Kasperbauer, Lichtenstein	Denver	Statewide
North Metro ID	MD: Cullinan	Westminster	
Peak Vista Community Health Center	MD: Walker-Conner PA: Davenport NP: Janty	Colorado Springs	El Paso and Teller county residents only
Private practice	MD: Alford	Denver	Metro Denver
Private practice	MD: Gill, Schoenwald	Longmont	Statewide ?
Pueblo Community Health Center	MD: Schwartz RN: Grove	Pueblo	Alamosa, Baca, Bent, Chaffee, Conejos, Costilla, Crowley, Custer, Fremont, Huerfano, Kiowa, Las Animas, Otero, Prowers, Pueblo, Rio Grande, or Saguache counties

Practice Name	Provider Names	On-site clinics	Jurisdiction Limits
Rocky Mountain Infectious Disease Consultants	Ong, Peskind, Cobb	Fort Collins	Statewide
Rocky Mountain Infectious Disease Specialists	MD: Harte, Kearns, Neid, Wendel	Aurora	Statewide
St. Mary's Family Medicine	MD: Davis, Dickenson, Neese NP: Walker	Grand Junction, with periodic clinics in Durango	Residents of Archuleta, Delta, Dolores, Eagle, Garfield, Grand, Gunnison, Hinsdale, Jackson, Lake, La Plata, Mesa, Moffat, Montezuma, Montrose, Ouray, Pitkin, Rio Blanco, Routt, San Juan, San Miguel, or Summit counties
South Denver Infectious Disease Specialists	MD: Golub, , Messa, Williams, Nyatsatsang	Englewood	Statewide
University of Colorado Infectious Disease Group Practice	MD: Barron, Beckham, Campbell, Carten, Castillo, Connick, Erlandson, Johnson, Levi, Madinger, Meditz, Moroni, Nichol, Rogers, Saveli, Wilson NP: Nielsen, Starr	Aurora (with periodic clinics in Grand Junction, Pueblo, and Durango)	Statewide
Veterans Administration, Denver	MD: Bessesen, Shapiro, Redington NP: Stamper	Denver	Statewide, for those with VA benefits
Veterans Administration –Mesa Co.	MD: Meyer, Davis, Janoff	Grand Junction	Statewide, for those with VA benefits
Western Infectious Disease Consultants	MD: Des Jardin, Fujita, Lucks, Wieland, Mason, Oyer	Wheat Ridge	Statewide

Oral Health Care

Access to oral health care is problematic in Colorado overall, and is particularly problematic for low income, uninsured PLWH/A with ongoing need for specialized dentistry.

For rural PLWH/A, accessing oral health care often involves considerable travel. According to a report from the Colorado Rural Health Center¹⁰, nearly half of Colorado counties are currently designated as a geographic or low-income Dental Health Professional Shortage Areas. This affects even those with adequate dental insurance or other means for payment.

PLWH/A on Medicaid face additional barriers paying for oral health care. To be eligible for coverage, the oral health condition must be demonstrated to be related to a “chronic medical condition in which there is documentation that the medical condition is exacerbated by a condition of the oral cavity.” In some instances, HIV/AIDS could potentially be considered such a chronic medical condition, if the oral health provider is willing and able to assemble the necessary documentation. Colorado Medicaid will also cover adult oral health care if it is “emergency” and is related to “a condition of the oral cavity that would result in acute hospital medical care and or subsequent hospitalization if no immediate treatment is rendered.” The following services/treatments are not a benefit for adult clients under any circumstances:

¹⁰ <http://www.coruralhealth.org>

preventive services to include prophylaxis, fluoride treatment and oral hygiene instruction; treatment for dental caries, gingivitis and tooth fractures; restorative and cosmetic procedures; inlay and onlay restorations; crowns; treatment of the oral cavity in preparation for partial or full mouth dentures; and assessment for, delivery of dentures or subsequent adjustments to dentures and bridges.¹¹

In spite of the fact that our health care system has been dealing with HIV/AIDS for over twenty-five years, it remains an illness that quickly separates one from access to routine health care. An adult living with HIV/AIDS faces tremendous challenges in achieving access to oral health care.

First, many oral health care practitioners remain fearful of patients with HIV/AIDS. While no oral health care professional has ever been infected with the HIV virus through an occupational exposure, there is an increased level of concern regarding Hepatitis C (HCV) infections. While the HIV virus is short-lived, the HCV virus is not. Health care professionals throughout the nation are at serious risk of exposure through workplace accidents (needle-sticks and splashes). The level of HCV co-infection is high. Second, the cost of oral health care is frequently prohibitive to people living with a chronic illness. The monthly cost of anti-viral medications for HIV/AIDS patients oftentimes exceeds \$2,000, making additional expenditures difficult. Third, oral health care is frequently a misunderstood component of the health care system in the United States. Fourth, PLWH/A needs continue to evolve with the changing nature of HIV/AIDS. As they lead longer, healthier lives, many are able to return to part-time or full-time work. Many are beginning to reassert themselves over their lives. Full health includes oral health care. It is our pleasure to assist our patients return to optimum health through the provision of the full range of oral health care available today. But many patients remain quite ill and the nature of their oral health problems is sometimes overwhelming. Patients may exhibit complex problems such as diabetes, Thrush, MAC (Mycobacterium avium-intracellular complex), CMV (Cytomegalovirus) Hepatitis, tuberculosis, multiple neuropathies, HIV Wasting, ANUP (Acute necrotizing ulcerative periodontitis), dementia and many more. Some of these are related directly to HIV/AIDS and others are a result of medications. The challenge of treating patients with multiple health care complications is daunting.

Fifth, the absence of early and adequate oral health care can lead to serious, life threatening infections, particularly in the immune suppressed patient. The oral manifestations of HIV/AIDS are significant and can mark advancement of the disease. Specific lesions may indicate the progression of the disease from an HIV diagnosis to that of full-blown AIDS. In many cases, complete oral examinations have averted an AIDS diagnosis.

¹¹ HCPF Rules, 10 CCR 2505-10, available at <http://www.colorado.gov/cs/Satellite?c=Page&cid=1214427706870&pagename=HCPF%2FHCPFLayout>

Chapter 3 – Needs that Obstruct Access to Care for People Living with HIV or AIDS

A. Overall Needs

To gain information about the most important issues faced by PLWH/A and their most important needs, several different approaches and three different samples of respondents were utilized in the 2011 needs assessment process. One of these approaches consisted of three open-ended questions included on the survey asking respondents what they thought were the most important issues faced by PLWH/A, what their most important needs were, and what they would recommend to improve the lives of PLWH/A. **Table 3.1** shows a summary of the responses to these questions from those living outside of the Denver area. Another survey question asked respondents what they thought were the three top issues they wanted help with after first learning they had HIV. **Table 3.2** shows the most common responses to this question from both in Denver and out of Denver respondents. Similar questions about important issues and needs of PLWH/A and needs when first diagnosed were posed to people participating in the interviews, including those who had an AIDS diagnosis soon after their initial HIV diagnosis and those who had spent substantial time out of care since their diagnosis.

Table 3.1: Most important issues and needs of PLWH/A and recommendations for improving the lives of PLWH/A as reported by survey respondents

Most Important Issues Facing PLWH/A N=230			Most Important Needs of PLWH/A N=215			Recommendations for Improving Lives of PLWH/A N=198		
Issue	#	%	Need	#	%	Recommendation	#	%
Access to care and medications	122	53%	Medical care and medications	136	63%	Taking responsibility for one's own health	48	24%
Stigma/discrimination	75	33%	Basic needs (housing, food, income, transport.)	73	34%	Ensure easier access to affordable care and treatment	46	23%
Meeting basic needs (housing, food, income, transportation)	59	26%	Social support/social interactions	55	26%	Improve people's ability to meet basic needs	35	18%
Mental health issues	41	18%	Acceptance/ address stigma	21	10%	Ensure social support and opportunities for social interactions	22	11%
Staying healthy mentally and physically	24	10%	Good mental and physical health	17	8%	Educate the public and address stigma	18	9%
Lack of social support/isolation	16	7%	Mental health care	12	6%	Ensure access to mental health care	16	8%
Issues around taking medications (including side effects)	11	5%	Quality care	11	5%	Provide updated and understandable information to clients	12	6%

Table 3.2: Top issues with which survey respondents needed help upon diagnosis with HIV

Top Issues	Denver Area N=568		Non-Denver/Unknown N=253		Total N=821	
Need	#	%	#	%	#	%
Finding a doctor or provider	296	52%	164	65%	460	56%
Getting medications	308	54%	147	58%	455	55%
Emotional support	319	56%	133	53%	452	55%
Information about HIV and how it would affect me	256	45%	99	39%	355	43%
Getting health insurance	141	25%	57	23%	198	24%
Getting laboratory tests	138	24%	56	22%	194	24%
Mental health concerns	135	24%	33	13%	168	20%
Housing/rent assistance	108	19%	29	11%	137	17%
Emergency financial assistance	100	18%	27	11%	127	15%
Getting dental care	100	18%	25	10%	125	15%
Services for other medical conditions	50	9%	21	8%	71	9%
Getting food	51	9%	13	5%	64	8%
Transportation	43	8%	12	5%	55	7%
Other	30	5%	16	6%	46	6%
Substance abuse concerns	31	5%	6	2%	37	5%

Access to Medical Care and Treatment

Access to care and medications was cited as a most important issue by 53 percent of the non-Denver survey respondents and as a most important need by 63 percent. Expressed concerns were predominantly about meeting these medical needs given the high costs of care and medications and the costs of insurance coverage and co-pays that many found difficult to afford. Those who were receiving assistance with medical coverage were concerned about being able to maintain access during hard economic times when cutbacks are common. Others thought that the income caps to receive assistance were too low, preventing them from qualifying and making it difficult to pay for care and meet other expenses. Many who were receiving assistance or who had applied for assistance discussed how cumbersome and complicated the processes often were, involving large amounts of paperwork. Respondents living in some parts of Colorado reported that it could be very difficult to access appropriate care because of the lack of infectious disease doctors in their area, laboratories for testing, or pharmacies that carried the appropriate medications. Other comments included difficulties in making appointments due to job conflicts or having insurance that did not cover all that they needed.

Finding a doctor or provider and getting medications were also among the top responses to the survey question about what people needed most when first diagnosed. Fifty-six percent of the entire sample and 65 percent of the out of Denver sample selected finding a doctor or provider as a top initial need. Additionally, 55 percent of the entire sample and 58 percent of the out of Denver sample selected getting medications as a top initial need. Recommendations from survey respondents around this issue included ensuring people's access to quality and appropriate medical care and medications. For some, quality care included both medical expertise and respectful treatment of patients. Ensuring access most often involved recommendations for lowering the costs of medications, making it easier for working people to qualify for assistance in paying the costs of care and treatment, and simplifying the process of enrolling in programs. Other related recommendations included: having a universal health care system ensuring care and treatment for all PLWH/A, and having more medications and supplements covered by insurance or ADAP.

Interview participants were provided a much more open-ended forum to discuss their most important issues and needs. Interestingly, access to health care and medications were the least often discussed when participants were asked what PLWH/A needed most. Only one of the participants who had a history of being out of care mentioned the need for doctors and medications as among the most important when first diagnosed. Most of the interview participants who had concurrent HIV/AIDS diagnoses found out about their diagnoses when they were already very ill, so receiving immediate medical care was more of an issue for them.

Meeting Basic Needs

The second most common set of needs and the third most commonly described issues faced by those with HIV that were reported by the survey respondents concerned the difficulties that many have in meeting their basic needs for housing, income, food, and transportation. The respondents spoke of how struggling to meet such needs made it even more difficult for people to access care services and adhere to treatment regimens, underscoring the need for people to have some stability in their lives to better maintain their health. Additionally, many of the recommendations provided by non-Denver area survey respondents for improving the lives of PLWH/A also underscored the difficulties associated with having HIV and being poor, recommending more widespread assistance in meeting basic needs. Some respondents stressed the need for ensuring better access to housing assistance or more affordable housing. Balancing issues associated with low incomes and access to benefits put some in very precarious positions as several respondents mentioned how small increases in income or benefits could lead to the loss of other benefits or disqualification from assistance programs, which meant an overall loss in income and benefits. Some stressed how they wanted to work and increase their income but feared losing critical benefits, and they emphasized the need for more flexibility within the system making it possible for people to earn more income and still qualify for assistance. One survey respondent mentioned that so often all family resources go toward basic survival needs, leaving nothing for occasional recreation such as seeing a movie. Housing and other basic needs such as financial assistance, food, and transportation were selected as most important issues upon HIV diagnosis more frequently by those living in the Denver area than among those living outside of Denver or for whom county of residence was unknown.

Interview participants also considered having stability in their lives and being able to meet basic needs as one of the most important issues for PLWH/A, especially the need for stable housing. One spoke of how easy it is to give up on everything if a person does not have a place to live. Another talked about how important it is to have a place to go, think, and sort out how things are going and what needs to be done. A third said that if people are worried about where they are going to stay, they will not prioritize taking care of their health and how not having a place to clean up can be demoralizing. One spoke of needing a stable place to store medications properly and not risk having them stolen. Another person summarized the importance of housing stressing that once a person gets housing, other things tend to fall into place. Lack of transportation was also discussed as a barrier to accessing services by both Denver and out of Denver participants, emphasizing the need for bus passes and gas vouchers to help people keep appointments and access pharmacies. Some mentioned how insufficient income can make people have to choose between buying food and other necessities and accessing expensive medications or making co-pays for care. Others mentioned how having HIV may prevent people from working. Several of

the interview participants spoke of having serious financial concerns when they were first diagnosed with HIV and needing help accessing both health insurance and income.

Social and Emotional Support

Just over one quarter of the survey respondents emphasized the need for PLWH/A to have better social and emotional support and more social interactions with others, including others living with HIV. Emotional support was selected by 55 percent of the total survey sample and 53 percent of the out of Denver sample as one of the top issues they needed help with upon diagnosis of HIV, ranking almost equally to finding a doctor or provider and getting medications. Respondents in the 20 - 24 age group selected emotional support as a top issue more often than people over 45 (69 percent versus 50 percent). More Latinos selected emotional support than those from any other ethnic group with 60 percent indicating it was a top issue, compared to 56 percent of African Americans and 48 percent of whites. Respondents stressed how critical social support is to many people who are dealing with HIV and the feelings of fear, loneliness, and rejection that often accompany the disease. Therefore many survey respondents recommended building more social dimensions or provision of social support into the assistance provided to PLWH/A, including organizing support groups and social events.

Among interview participants who had spent time out of care, the need for support was the most commonly cited. This was especially the case when asked about what they and others needed most when they were first diagnosed with HIV. For some this meant the need to be able to gain support from and to socialize with others with HIV, either as part of support groups or a mentoring program. For others it was about having someone to talk to who they could trust and who could offer them encouragement, reassurance, and hope. Some specified the need for family, friends, and community to offer them support and understanding. Even though many were dealing with serious illness, interview participants who had concurrent HIV/AIDS diagnoses also most often spoke of needing support when they first found out they had HIV. For them this included support from family, partners, doctors, counselors, or just someone who was not judgmental that they could talk to.

Stigma and Discrimination

A third of the survey respondents addressing the question about important issues faced by PLWH/A mentioned the difficulties associated with HIV-related stigma and discrimination, which they thought was quite prevalent. People talked of being subjected to judgment, bad treatment, and rejection by others, often leading to depression or feelings of anger, isolation, and shame. Many lamented the ignorance of the general public about HIV, expressing unfounded fears about contact with those who are HIV positive. Some reported that they had told very few people about their status due to the stigma. Respondents emphasized the needs for acceptance and to have stigma addressed. Recommendations concerning addressing HIV-related stigma emphasized the need for more education directed to the public about the disease. The powerful impact of stigma on PLWH/A was also commonly discussed in the interviews with PLWH/A. In these interviews, participants spoke of others being afraid of them or of having casual contact with them, thinking they might contract the disease. Others spoke of PLWH/A being denied jobs based on similar misinformation about how HIV is spread. Some described feeling like an outcast and the impact of that on their mental health or of not being able to disclose their status in certain settings for fear of violence. Interview participants also stressed the need for better

public information to confront stigma, dispel misinformation, and generate better acceptance and understanding of PLWH/A.

Mental Health Assistance

The fourth set of issues reported by survey respondents as most important for PLWH/A centered on mental health. Both dealing with their diagnosis as well as the stigma were said to cause feelings of depression, anxiety, stress, loneliness, isolation, and low self-esteem. Some also discussed problems with the high costs of mental health treatment and the limited number of available options for care. Maintaining good emotional health was considered as a most important need by many of the respondents, and was reported by 20 percent of the survey sample as one of the top three issues they needed help with when first diagnosed. Ensuring access to counseling and other types of mental health care was among the recommendations for improving the lives of PLWH/A for eight percent of the survey sample. Given that over half of the survey respondents reported having mental health problems, the percentage of those expressing a need for access to mental health care was relatively low. When asked about what issues arose for them when they were first diagnosed with HIV, interview participants who had spent time out of care most often spoke of dealing with depression and related emotions such as fear, disbelief, shame, guilt, and anger, some of which was exacerbated by HIV-related stigma. Several reported needing counseling at the time. **Table 3.3** summarizes survey responses related to mental health.

Table 3.3 – Mental health responses from survey respondents

	Denver Metro		Non-Denver		All	
	N	%*	N	%*	N	%*
Respondent's self described mental health						
Poor	77	13	28	10	105	12
Fair	206	35	77	29	283	33
Good	238	40	125	47	363	42
Excellent	67	11	34	13	101	12
No Response	7	1	3	1	10	1
Respondent experienced symptoms of depression in past 12 months						
Yes	388	65	145	54	533	62
No	193	32	112	42	305	35
No Response	14	2	10	4	24	3
Respondent felt they needed help with mental health in last 12 months						
Yes	339	57	138	52	477	55
No	252	42	125	47	377	44
No Response	4	1	4	1	8	1
Respondent has had a diagnosis of mental disorder**						
Any Mental Health dx	385	65	157	59	542	63
Depression	318	53	131	49	449	52
Anxiety	209	35	86	32	295	34
Bipolar	102	17	31	12	133	15
Other	56	9	20	7	76	9
OCD	35	6	7	3	42	5
Schizophrenia	20	3	3	1	23	3

* All percentages have been rounded to the nearest whole percent and may not equal 100%.

**Respondents selected all that apply, therefore does not sum to 100 percent.

Substance Use Assistance

Survey respondents reported a history of substance use issues at rates beyond what would be expected of the general population. The rates of use reported in these questions, and the percentages that report they “should cut down” and “need help cutting down” in the prior 12 appears to contradict the relatively low need for substance abuse services expressed by survey respondents. This is probably indicative of the stigma attached to substance use and the lack of readiness to confront and deal with it. It reinforces the need for more comprehensive screening, brief intervention, and motivational referral to services as needed. Substance use responses are summarized in **Table 3.4**.

Table 3.4 – Substance use responses from survey respondents

	Denver Metro		Non-Denver		All	
	N	%*	N	%*	N	%*
Respondent ever drinks or uses drugs						
Yes	364	61	132	49	496	58
No	221	37	131	49	352	41
No Response	10	2	4	1	14	2
Of those that drink or use drugs, respondents felt they should cut down on alcohol or drug consumption in past 12 months (N=496)						
Yes	142	39	50	38	192	39
No	201	55	81	61	282	57
No Response	21	6	1	1	22	4
Of those that drink or use drugs, respondents felt they needed help cutting down in past 12 months (N=496)						
Yes	85	23	24	18	109	22
No	199	55	85	64	284	57
No Response	80	22	23	17	103	21

* All percentages have been rounded to the nearest whole percent and may not equal 100%.

Information

Another important set of needs reported by survey respondents related to information. People stressed that it was important for PLWH/A to have updated information about HIV in general and about their own personal health, what they needed to do to take care of themselves, and where they could go to access services. The need for information about HIV and how it would affect them ranked fourth among the most important issues survey respondents reported needing help with when first finding out they had HIV, with 43 percent of the entire sample and 39 percent of the out of Denver sample selecting it. Women selected information about HIV much more often than men (52 percent versus 39 percent). Fifty-eight percent of African Americans chose information about HIV compared to 41 percent of Latinos and 39 percent of whites. When asked what they needed most when they first found out they had HIV, the interview participants also discussed the importance of information, ranking it second after the need for support. The types of information people said they needed included information about HIV and how it would affect them, how HIV was no longer a death sentence, and what they needed to do to access services, including some form of case management.

Other Issues, Needs, and Recommendations

Other issues that were less commonly mentioned as being most important by survey respondents included: staying healthy, both mentally and physically, and the difficulties adhering to

medication regimens and dealing with medication side effects. Among the recommendations for improving the lives of PLWH/A, respondents most frequently wrote about what PLWH/A should do for themselves to maintain their health including: making sure they make it to all of their doctor's appointments and adhering to their treatment regimens, getting exercise and eating right, keeping a positive attitude, and living a healthy lifestyle. Some mentioned that having affordable access to recreation centers and gyms would help facilitate this process as well as access to nutritious foods. Among interview participants, other issues and needs they discussed included struggling with maintaining one's confidentiality or deciding who to tell and how they would broach the subject. One person spoke of needing help with disclosure issues. Several participants spoke of developing or worsening substance abuse problems that arose when they found out they had HIV.

B. Identified Gaps, Duplications in Services, and Service Priorities

Questions were posed to all of the participants in the needs assessment about the HIV care, treatment, and related services that they had been able to access and those they had not been able to access. They were also asked questions about barriers and facilitators to accessing services. Two percent of survey respondents indicated that they were not currently receiving HIV care, and two percent did not respond. Of the 822 survey respondents who were in care, 60 percent reported receiving HIV care, defined as "doctor visits, lab tests, etc.", more than three times in the last 12 months (**Table 3.5**).

Table 3.5: Number of times in-care survey respondents cited receiving HIV care in the past 12 months

	Denver		Non Denver		Total	
	N	%	N	%	N	%
Once	34	6	9	4	43	5
Twice	81	14	32	13	113	14
Three times	93	16	63	25	156	19
More than three times	353	62	144	57	497	60
No Response	7	1	6	2	13	2
Total	568		254		822	

Ninety-six percent of the survey respondents who were currently receiving HIV care reported following up on their doctors' recommendations for laboratory tests, such as CD4 and viral load tests. Ninety-two percent followed up through their doctors recommendations for filling their prescription medications (**Table 3.6**). Ninety-one percent reported following through on both recommendations. Four percent of in-care survey respondents indicated that their doctor did not recommend lab tests, prescription medications, or both.

Table 3.6: Number of in-care survey respondents who reported following through on their doctor's recommendations for laboratory tests and prescription medications

	Denver # %		Non Denver # %		Total # %	
Total in-care respondents	568	100	254	100	822	100
Respondent followed through on recommendation for lab tests						
Yes	547	96	240	94	787	96
No	2	0	0	0	2	0
Not Recommended	11	2	6	2	17	2
No Response	8	1	8	3	16	2
Respondent followed through on recommendation for prescription medications						
Yes	534	94	226	89	760	92
No	4	1	2	1	6	1
Not Recommended	14	2	13	5	27	3
No Response	16	3	13	5	29	4

Table 3.7 displays a summary of survey responses to questions concerning the services participants had needed in the previous 12 months and those that they had received based on location of residence. A high ratio of respondents who received a service to those who needed, but did not receive the service indicates a need that is well met. The ratio of met to unmet need for visits to medical providers and laboratory test was high both in and out of Denver. Dental care, however, had a much lower ratio of met to unmet need, with only 1.9 to 1 among Denver respondents, and 2.7 to 1 among non-Denver respondents. Overall, the ratios of met to unmet need were higher for non-Denver residents compared to those residing within the Denver area, in spite of the fact that a higher percentage of respondents out of Denver indicated the need for many of the services. This was especially the case for services such as: 1) Case management (11.5 to 1 met to unmet outside of Denver versus 3.7 to 1 in Denver); 2) Emergency financial services (3.5 to 1 in non-Denver versus 1.3 to 1 in Denver); 3) Transportation (3.6 to 1 for non-Denver versus 1.5 to 1 in Denver); 4) Nutritional counseling or supplements (1.7 to 1 for non-Denver versus 1 to 1.1 in Denver); and 5) Support groups or peer counseling (1.5 to 1 in Denver versus 2.9 to 1 to non-Denver). Child care was needed least frequently, but was received by less than 33 percent of those that needed it.

Table 3.7 - Ratio of survey respondents indicating that they received a service to those who indicated they needed but did not receive the service, and the total number who indicated need.

	Denver Ratio of met to unmet need	Total need (from 515 respondents)	Non-Denver Ratio of met to unmet need	Total need (from 240 respondents)
Visits to doctors, nurses, and other medical providers	(17.5 : 1)	459	(21.5 : 1)	225
Laboratory tests (CD4, viral load, etc.)	(16.6 : 1)	454	(21.8 : 1)	228
Help buying the prescriptions you need	(10.6 : 1)	385	(11.9 : 1)	181
Dental care	(1.9 : 1)	339	(2.7 : 1)	178
Case management	(3.7 : 1)	235	(11.5 : 1)	163
Help getting or paying for health insurance	(3 : 1)	271	(2.6 : 1)	113

	Denver Ratio of met to unmet need	Total need (from 515 respondents)	Non-Denver Ratio of met to unmet need	Total need (from 240 respondents)
Emergency financial assistance (utilities, etc.)	(1.3 : 1)	168	(3.5 : 1)	103
Individual or group counseling for mental health	(3 : 1)	178	(4.2 : 1)	83
Groceries or prepared meals	(2.3 : 1)	163	(3.3 : 1)	81
Help getting or staying in housing	(2.2 : 1)	149	(3.1 : 1)	66
Transportation to and from medical or other services	(1.5 : 1)	140	(3.6 : 1)	69
Nutritional counseling or supplements	(1 : 1.1)	123	(1.7 : 1)	68
Support groups or peer counseling	(1.5 : 1)	127	(2.9 : 1)	63
Help buying over-the-counter medication	(1 : 1.1)	118	(1.3 : 1)	63
Alternative care (acupuncture, herbal remedies, etc.)	(1 : 2)	92	(1.5 : 1)	57
Education-related services	(1.3 : 1)	79	(1.2 : 1)	33
Substance abuse treatment/counseling (out patient)	(3.9 : 1)	73	(4 : 1)	25
Home health care or other in-home assistance	(1.3 : 1)	44	(1.6 : 1)	26
Substance abuse treatment (residential)	(2.3 : 1)	33	(5 : 1)	12
Child care while accessing medical or other services	(1 : 2)	17	(1 : 2.5)	11

A closer look at the extent to which certain demographic groups within the survey sample reported needing services and receiving the services they needed shows some substantial differences. The population groups in **Table 3.8** indicated a higher average number of needs than all survey respondents, or a indicated that a higher proportion of those needs were unmet. The aging population (45 and older) is also considered a special population, however they indicated having, on average, only 5.4 needs, and only 21 percent on average were not being met. Other populations that indicated higher than average need, but did not have sufficient survey responses were male-to-female transgender, American Indian/Alaskan natives, Native Hawaiians, and non-US born Black or African.

Table 3.8 - Special population groups who indicated more needs than the survey average, or a higher proportion of needs not being met.

Population Group	Respondents (N)	Average unmet needs	Average total needs	Proportion of needs unmet
All Survey Respondents	755	1.75	7.47	0.23
Homeless in previous 2 years	88	3.33	9.55	0.35
In jail or prison since HIV dx	143	2.7	9.55	0.28
IDU likely mode of transmission	51	2.1	8.51	0.25
All Black/African American	70	2.22	7.96	0.28
Heterosexual Male	47	1.87	7.19	0.26
Non-US born Hispanic	45	1.6	6.76	0.24
Women	124	1.73	7.79	0.22

Table 3.9 displays the ratio of survey respondents that received to those that did not receive a needed service for the 10 services most frequently indicated as needed by the demographic

groups considered special populations. African Americans had a lower ratio of met to unmet need for visits to doctors and laboratory tests than the other demographic groups shown. Women had high met to unmet ratios for most needs, except for help buying medications which was 6.4 to one compared to the statewide average of 11 to one. Non-US born Hispanics had a lower met-to-unmet ratio for help getting or paying for health insurance than the other population groups. Non-US born Hispanics more frequently listed support groups or peer counseling as well as education-related services as needed, though these were not indicated as most frequently needed for the general population. Similarly, for women and non-US born Hispanics, nutritional counseling or supplement was one of the 10 most frequently needed services by these groups.

Table 3.9 - Ratio of those who received service to those who needed but did not receive service for the top ten needed services of each demographic group. Services for which there is no ratio reported were not a top need for that population.

	Aging (45+) (Ratio of met to unmet need) N=456	African American (Ratio of met to unmet need) N=70	Hispanic Non-US born (Ratio of met to unmet need) N=45	Women (Ratio of met to unmet need) N=124
Visits to doctors, nurses, and other medical providers	(18.1 : 1) 420	(13.8 : 1) 59	(38 : 1) 39	(21.4 : 1) 112
Laboratory tests (CD4, viral load, etc.)	(18.2 : 1) 422	(11 : 1) 60	(39 : 1) 40	(26.5 : 1) 110
Help buying the prescriptions you need	(11.8 : 1) 346	(7.2 : 1) 49	(11.5 : 1) 25	(6.4 : 1) 89
Dental care	(2.5 : 1) 305	(1.9 : 1) 40	(1.8 : 1) 31	(3.3 : 1) 82
Case management	(5.5 : 1) 239	(4 : 1) 35	(4.8 : 1) 23	(6 : 1) 77
Help getting or paying for health insurance	(3 : 1) 235	(3.9 : 1) 39	(1.3 : 1) 16	(3.2 : 1) 63
Emergency financial assistance (utilities, etc.)	(1.6 : 1) 141	(1.3 : 1) 25	(2.2 : 1) 16	(2 : 1) 54
Individual or group counseling for mental health	(3.8 : 1) 134	*	(2.5 : 1) 14	(3.2 : 1) 42
Groceries or prepared meals	(2.8 : 1) 137	(2.5 : 1) 28	(10 : 1) 11	(3.7 : 1) 42
Help getting or staying in housing	(2.3 : 1) 122	(2 : 1) 30	*	*
Transportation to and from medical or other services	*	(1.9 : 1) 35	*	*
Nutritional counseling or supplements	*	*	(1 : 1.3) 14	(1.4 : 1) 41
Support groups or peer counseling	*	*	(4.5 : 1) 11	*
Education-related services	*	*	(1 : 1.25) 11	*

*Not a top need for this population

Table 3.10 displays the ratio of survey respondents reporting that received to those that did not receive each of the top 10 most needed services for the non-demographic based special populations. Those who reported that they had been homeless in the last two years had the lowest ratio of received to not received for visits to medical providers and laboratory tests. Survey respondents who listed intravenous drug use as a likely mode of infection had a high met-to-unmet ratio for individual or group mental health counseling, and all respondents who indicated a need for outpatient substance abuse treatment reported receiving it. More than half of those

who reported being incarcerated since HIV diagnosis and 55 percent of those who had been homeless in the last two years reported needing transportation assistance, compared to less than 30 percent of all survey respondents.

Table 3.10 - Ratio of respondents who received to respondents who did not receive a needed service for population groups of interest. Only the top ten services needed by each special population are reported.

	Incarcerated (Ratio of met to unmet need) N=143	Homeless (Ratio of met to unmet need) N=88	Heterosexual Males (Ratio of met to unmet need) N=47	IDU(Ratio of met to unmet need) N=51
Visits to doctors, nurses, and other medical providers	(15.5 : 1) 132	(10.9 : 1) 83	(21 : 1) 44	(21.5 : 1) 45
Laboratory tests (CD4, viral load, etc.)	(18.1 : 1) 134	(12.3 : 1) 80	(14 : 1) 45	(21.5 : 1) 45
Help buying the prescriptions you need	(7.8 : 1) 114	(4.2 : 1) 62	(7.5 : 1) 34	(8 : 1) 36
Dental care	(1.5 : 1) 107	(1.1 : 1) 60	(1.7 : 1) 32	(1 : 1) 38
Case management	(3.9 : 1) 89	(3.9 : 1) 59	(2.7 : 1) 22	(2.1 : 1) 28
Help getting or paying for health insurance	(2.1 : 1) 88	(1.3 : 1) 54	(2 : 1) 24	(4.5 : 1) 33
Emergency financial assistance (utilities, etc.)	(1.5 : 1) 77	(1.1 : 1) 44	(1.7 : 1) 16	(2.6 : 1) 25
Individual or group counseling for mental health	(4.5 : 1) 71	*	*	(10.5 : 1) 23
Groceries or prepared meals	(2.4 : 1) 68	(1.8 : 1) 51	(2.2 : 1) 16	(2.6 : 1) 18
Help getting or staying in housing	(2.1 : 1) 68	(1.1 : 1) 47	(2 : 1) 15	(2.5 : 1) 21
Transportation to and from medical or other services	(2 : 1) 73	(1.2 : 1) 48	(2.2 : 1) 16	(2.6 : 1) 18
Help buying over-the-counter medications	*	*	*	(1 : 1) 18
Substance abuse treatment/counseling (out patient)	*	*	*	(all) 18

*Not a top need for this population

Affordability of services, particularly health care services, is often linked to gaps in care. To address affordability issues, the needs assessment asked specific questions about sources of payment for medical services. The Colorado Indigent Care Program (CICP) and Medicare were listed as top sources of payment for medical services both for Denver and outside of Denver survey respondents. ADAP and Bridging the Gap were the top sources of payment for medications. A higher proportion of the non-Denver survey respondents reported using private insurance, personal savings, and family and friends to pay medical expenses than those residing in the Denver Metro area (**Table 3.11**).

Table 3.11 - Sources of payment for medical care and for medications

	Denver		Non-Denver		Total	
	N	%	N	%	N	%
Payment Source Question- No Response	28	5	9	3	37	4
Which of the following did you receive assistance from in the past year?	Medical Care N	Medications %	Medical Care N	Medications %	Care N (%)	Meds N (%)
AIDS Drug Assistance Program (ADAP)	124	21	440	74	164 (20)	592 (72)
Bridging the Gap, Colorado	79	13	170	29	108 (13)	230 (28)
Colorado Indigent Care Program (CICP)	234	39	144	24	306 (37)	183 (22)
Medicare	202	34	134	23	282 (34)	180 (22)
Personal income or savings	96	16	99	17	157 (19)	158 (19)
Medicaid	113	19	82	14	175 (21)	119 (14)
Family/Friends	40	7	41	7	63 (8)	72 (9)
Private health insurance through work	39	7	35	6	76 (9)	69 (8)
Individual health insurance plan	33	6	28	5	57 (7)	50 (6)
Pharmacy Company Assistance Program	16	3	26	4	24 (3)	43 (5)
Other (describe)	24	4	23	4	44 (5)	34 (4)
Coverage under a spouse/partner's health insurance plan	11	2	10	2	19 (2)	17 (2)
Cover Colorado	10	2	11	2	15 (2)	15 (2)
Don't know/not sure	7	1	6	1	15 (2)	12 (1)
Veteran's Administration	6	1	5	1	12 (1)	12 (1)
Indian Health Services	2	<1	1	<1	3 (0)	2 (0)

One question posed to survey respondents asked what medications or medical care people were not receiving because they were not covered under their medical plans or because people could not afford them. A total of 170 respondents provided answers to this question, 105 from the Denver area and 65 from outside of Denver. **Table 3.12** shows the types of medications that respondents said they were not receiving. Medications for mental health disorders such as depression or anxiety were the most commonly reported by survey respondents statewide, and more frequently reported by Denver area residents than by those from outside of Denver (16 percent versus nine percent). Pain medications were also reported as not received more frequently by Denver area residents (15 percent versus nine percent). Stomach medications were reported as not received by 14 percent of the Non-Denver respondents and 12 percent of the Denver area residents who responded to the question. Medications that were listed by less than four percent of the total survey respondents included cancer medications, eye medications, and drugs for chronic obstructive pulmonary disease, genital warts, gastro esophageal reflux disease, drinking cessation, and smoking cessation, and 30 different types of medications were each mentioned by only one person.

Table 3.12 - Medications reported by survey respondents as ones they could not access

	Total Survey Respondents (N=170)		Denver (N=105)		Non-Denver (N=65)	
	n	%	n	%	n	%
Psych meds	23	14	17	16	6	9
Pain meds	22	13	16	15	6	9
Stomach meds	22	13	13	12	9	14

	Total Survey Respondents (N=170)	Denver (N=105)	Non-Denver (N=65)
Nutritional supplements	14 8	9 9	5 8
Blood pressure meds	12 7	9 9	3 5
Sleeping aids	9 5	7 7	2 3
Cholesterol meds	9 5	6 6	3 5
Heart meds	7 4	6 6	1 2
Allergy meds	7 4	5 5	2 3
Erectile dysfunction drugs	7 4	5 5	2 3
HIV meds	7 4	5 5	2 3
Testosterone	7 4	5 5	2 3
Vitamins	7 4	5 5	2 3

Table 3.13 summarizes responses about care-related services people living outside of Denver who reported not being able to access. Dental care topped the list with 32 percent of those who responded to the question reporting this as an unmet need. Eye care ranked second, reported by 23 percent of those responding, and alternative care such as acupuncture and massage was reported by 14 percent.

Table 3.13 - Medical care reported as not received by non-Denver based survey respondents

Out-of Denver only N=65	N	%
Dental care	21	32
Eye care	15	23
Alternative care	9	14
Mental health care	6	9
Other care	6	9
Chiropractor	3	5
Emergency care	2	3
Hearing	2	3
Labs	1	2

Needs identified through interviews of PLWH/A

Over two thirds of the interview respondents who had been out of care for extended periods of time got back into care because they were sick, most to the point where they needed to be hospitalized. Most then were linked to ongoing care and related services by clinic staff, many of whom facilitated not only access to doctors appointments and medications, but also services such as CICP, Social Security, case management, and counseling. Many of the participants were very complimentary of their doctors and the staff at certain clinics for helping them understand HIV and the care process, linking them to medical care and treatment, helping them to find other needed services, and helping them with the paperwork to enroll in those services. About half of the interview participants received help accessing care and related services from community-based organizations (CBOs) that provide services to the homeless and ASOs. Decreasing substance abuse and improved mental health, including an increased desire to live and an acceptance or diminishing fear of HIV, were also cited by participants as helping them to access

care, as were advice from other PLWH/A, family encouragement, partner support, and better proximity to clinics. One participant said that increasing knowledge about the services available helped him to access care, and another said changes in his income lead to him being eligible for services for which he previously did not qualify.

Interview respondents were also asked about any barriers they faced when trying to get into care, and their answers were quite varied. Three respondents from outside the Denver area spoke of the lack of providers specializing in HIV in their areas. The ones that were available were sometimes not a good fit for the person. Issues related to being homeless or extremely poor caused barriers for three other respondents, including transportation problems in getting to appointments, loss of an acceptable method of identification, and having medications and paperwork stolen. Three others spoke of barriers related to insurance, the high costs of medications when not sufficiently covered by insurance, limitations on covered providers, and high co-pays for doctors' appointments. Two others mentioned the long waits getting in to see a doctor as barriers to care. Other barriers included having trouble adhering to medication regimens and the large amount of paperwork necessary to access care.

All of the people who were interviewed because they already had AIDS at their first HIV diagnosis had accessed care very soon after their diagnosis, and all seemed satisfied with the care they were receiving. Although some expressed having bad experiences with doctors in the emergency departments where they were first diagnosed, most described a very smooth process of getting linked to very good doctors, to medications, and to other needed services such as Medicare, disability benefits, emotional support, and assistance meeting basic needs for food and transportation. Clinic staff in both Denver and Pueblo were cited for their comprehensive approaches to getting the medical and other needs of their clients met, as well as for making follow-up calls to clients when they had not shown up for appointments or to help them access services. Some had received help accessing care and other services from ASOs. Several participants mentioned the good results they have had in their CD4 and viral load counts since accessing medications.

A few respondents did mention some problems in accessing care. Two of these interview participants who had private insurance at the time of their HIV diagnoses had lost their insurance since. One was very concerned about accessing care and meeting living expenses until clinic staff helped to link him to care and disability benefits. The other had to wait six months for insurance after getting a new job, but the ADAP helped him with information and medications. One man with private insurance spoke of paying \$6,000 in co-pays, which depleted his savings. Some mentioned the high costs of care and treatment and expressed concerns about ever losing their benefits or for those who are not insured and not receiving similar assistance. One person spoke of a delay of approximately three months after his diagnosis in getting his medication. He was the only respondent who thought that the process of accessing care was somewhat difficult and took too long. Another did not like the counseling he had received from an ASO, and had not tried to seek it elsewhere.

Given that most of the respondents to these particular interviews had good experiences in accessing the care, treatment, and other services they needed, a few did not have any suggestions about how to improve people's access to these services. The majority stressed, however, that

even though there are great programs out there, it was important that PLWH/A have access to information about what services are available and how to access them. Such information could be made available through public information, clinic staff, case managers, doctors, and through support groups. One respondent stressed how difficult it was to get the appropriate information to people who do not want others to know about their status. Some stressed how lost they would have been if they had not received information and assistance. One emphasized the difficulties filling out large amounts of paperwork to qualify for programs if there is no knowledgeable person to help. Two participants spoke of the need for better access to transportation so that people could access help. Others stressed the need to help people acquire basic needs to help them stay in care.

When asked about any unmet needs, over half of the interview respondents said that they had none because they had been so well taken care of by providers. Those who did identify unmet needs described housing assistance, specialty medical care, counseling and support groups, education assistance, opportunities for socializing, and assistance in learning to disclose their HIV status. When asked about needs that are most commonly not met for others, housing was mentioned most frequently by interview participants. Programs for housing assistance were said to be underfunded. Therefore the assistance was limited and the wait lists long. The second most common unmet need was for mental health treatment, counseling and emotional support. A third need that often went unmet was for income, either through a job or disability benefits, which were said to be difficult to get. Several participants talked about how hard it was to get qualified for federal programs such as Social Security disability, Medicare, and the food stamp program. Although several people said that food from food banks was often easy to get, accessing truly nutritious food was said to be difficult. Other needs that were said to often go unmet for PLWH/A were for HIV and other medications, education, relationships, transportation to appointments, and information on available services. When asked about what services tended to be the easiest and hardest to access, responses ranged substantially and reflect the very different experiences that people have in accessing the medical and other services that they need. Several people made the point that there are services available, but people need to know how to find them which is not always easy.

When asked about what types of people had the hardest time gaining access to the services they need, respondents thought that poor people, especially the homeless had the hardest time. Not being able to afford transportation to appointments was one reason given. One person disagreed saying that the homeless could get everything they need if they are in Denver. Another person thought that it was actually those people who were functional and had jobs that had a harder time because they had to pay for everything, although persons with good incomes and insurance were mostly seen by others as those with the least difficulties accessing what they need. Several interviewees responded that people who are trying to hide the fact that they have HIV from others have the hardest time getting services because they do not want to risk others' finding out if they do access services. People from small towns and people from out of the area were said to have a hard time because they may be the least likely to know about what services are available. One person spoke of those who have not adapted well to their diagnosis and who could not manage to do what needed to be done as having the hardest time. Agreeing with this statement, some added that people who were mature, mentally stable, and with good self-esteem were more

likely to be able to accept that they have HIV and take the steps needed to get medical and other services.

Needs Identified by the Part C Providers

Beacon Center for Infectious Disease

Beacon Center for Infectious Disease has identified 5 needs in their service area.

NEED #1 – Targeting young gay and bi-sexual men for education and testing outreach.

The Boulder County Health Department estimated the level of risk for infection among young gay men in Boulder County, based on demographic trends, sero-prevalence data, and risk behavior surveys. Of young gay men, 453 are at *highest* risk, 1,179 are at *moderate* risk and 819 are at *lower* risk. It is notable that of gay men sero-converting in 2008 in Boulder County, 35 percent were 20 to 29 years of age and 40 percent were 30 to 39 years of age. Again, if these numbers are extrapolated to the entire service area that could mean that there are well over 3000 young gay men who are at some level of risk.

NEED #2 – Focused multi-agency projects that target rural Colorado for outreach and education. Colorado Behavioral Risk Profiles indicate mitigating circumstances that include significant IV drug abuse, treatment of STI/venereal diseases, anal sex without a condom, and the exchange of drugs or money for sex.

It is also widely known that methamphetamine abuse is prevalent in many parts of the United States and rural Colorado is no exception. While, some of the highest usage rates are found in men who have sex with men, along with young white males, multiple race and native Hawaiians.¹² The impact of the abuse of methamphetamine results in more sexually transmitted infections, most notably HIV disease.¹³

Also, the Rural Center for AIDS/STD Prevention reports that methamphetamine contributes to high risk sexual behavior; as it commonly increases sexual arousal and prolonged erection, which may lead to having more unprotected casual encounters, which often include multiple sex partners. It was also noted in the Rural Center for AIDS/STD Prevention report, that six key elements may increase the risk of HIV/STD transmission: the belief that HIV is not in rural areas; prolonged period of unprotected sex while high; deciding to inject methamphetamine; mental confusion from chronic use or bingeing; injecting in a chaotic environment; and rural structural factors such as HIV stigma, marginalization, inadequate treatment services, and limited HIV prevention and testing.

NEED #3 – Accurate representation of HIV infected individuals in treatment in Boulder. Boulder County statistics do not account for migration in- and –out of service area. Actual BCID numbers are reflected below.

¹² American Family Physician, “Methamphetamine Abuse”, October 15, 2007.

¹³ Retrieved June 20, 2011, from Rural Center for AIDS/STD Prevention:
<http://www.indiana.edu/~aids/factsheets.html> “Rural Methamphetamine Use and HIV/STD Risk”, 2006

- While CDPHE reported 40 new HIV infections in the region in 2010, 71 new patients were treated that year for HIV disease at BCID, the region's primary HIV health care provider.
- CDPHE reported 12 new infections in Boulder County in 2010, yet the Boulder County AIDS Project (BCAP) conducted 54 new client intakes with HIV+ individuals in 2010.

NEED #4 – Costly specialty care for routine screenings and co-morbidities.

Since people with HIV/AIDS are living much longer, the cost of care for these individuals is also increasing. For instance, the cost of age-appropriate screening colonoscopies outweighs available Ryan White funding. The Beacon Center vigorously seeks out providers who are willing to provide services at a significant cost reduction. However, even at a 50 percent reduction, a routine colonoscopy will cost the Beacon Center \$1,500-\$2,500 depending on whether there is need to biopsy suspicious polyps.

Also, there are co-morbidities such as cardiovascular disease that is prevalent in persons living with HIV who are on long-term antiretroviral therapy. The Beacon Center covers the cost of specialist consultations, but the diagnostic costs for cardiovascular disease become quite costly. The costs of diagnostic services, such as an echocardiogram can exceed \$1,500, which is greatly reduced due to the generous discounted rates they are able to get for Boulder Community Hospital services. Even with reduced rates, available funding cannot absorb the costs to meet the patients in need of these services.

NEED #5 – Comprehensive outpatient substance abuse/mental health services

It is widely known that people living with HIV are predisposed to substance abuse and mental health issues. The fear of stigma and rejection can create a self-destructive dynamic that is prevalent among a large portion of the Beacon Center's patients. If they are unable to effectively address substance abuse and mental health issues, it impedes our ability to address our patient's medical issues. The Beacon Center has a fairly robust mental health program due to funding by the CDPHE HIV Care and Treatment Program; but the limitation is in our ability to offer intensive outpatient substance abuse treatment, as it is cost prohibitive.

Pueblo Community Health Center

PCHC's proposed service area includes 17 of 24 counties in Southeastern Colorado. Some counties border the rural states of Kansas and New Mexico. The population of the proposed service area is 344,374.¹⁴ Only 1 of the 17 counties in the proposed service area is urban – Pueblo County – according to the definition of living within a city of more than 50,000 and working in primary jobs of service and manufacturing. 40 percent of PCHC's EIS patients are Latino/a. The EIS Program is closely integrated with PCHC's Migrant/Seasonal Farmworker and Homeless Programs. Care providers, together with EIS enrollment and outreach staff, have developed protocols for screening migrant and homeless patients who are already enrolled in PCHC by providing risk assessments and options for HIV testing at visits with physicians and medical staff. PCHC serves people of all ages who are currently living with HIV/AIDS, as well as those who become infected with HIV/AIDS. PCHC is the only provider of EIS services in their service area.

¹⁴ US Census Bureau, American Fact Finder 2005-2009, 2010.

Transportation and access to primary health care are the most significant barriers to care. Prior to PCHC's EIS program award in 2002, patients had to travel at least 120 miles one way to access services in Denver. HRSA funding supports much-needed transportation funds, such as bus tokens and vouchers for patients to travel to, and from, medical appointments.

Racial and ethnic minorities continue to be disproportionately affected by HIV/AIDS. PCHC's Southeastern Colorado service area has a 33 percent Latino/a population compared to Colorado (18.6 percent). Latino/as represent a higher percent of new AIDS cases in Colorado (23 percent). In fact, 40 percent of PCHC's EIS patients are Latino/a.

Consumer involvement is achieved in many ways throughout the organization. The EIS Program conducts and monitors quarterly patient satisfaction surveys and implements feasible suggestions. One hundred seven (107) surveys were distributed during collaborative clinics between April 1, 2007 and August 31, 2008. EIS clients responded with a 98 percent satisfaction rate. Some of the results follow:

Overall, patients are satisfied with the care and services they receive through the PCHC/ EIS Program. Comments received from patients indicated they feel staff members treat patients with respect; information is confidential; medical, dental and mental health needs are met.

The survey results are reported quarterly to executive management and the board of directors as part of PCHC's Quality Improvement program.

Pueblo Community Health Center has identified the following gaps in services; co-pay assistance for medical and dental specialty care; funding to retain patients into care once they have fallen out of care and funding for universal testing programs.

Close coordination of services with the Southern Colorado AIDS Project ensures that the elements of medical case management of clients do not result in the duplication of services.

Western Colorado HIV Specialty Care Clinic

As part of their efforts to determine client needs, the Western Colorado HIV Specialty Care Clinic in Grand Junction conducted a patient satisfaction survey in July 2011. A total of 158 surveys, in both English and Spanish, were sent out to patients seen at least once in 2010-2011. Surveys were anonymous and were included with Western Colorado AIDS Project's annual client survey. There were 59 replies for a response rate of 37 percent. While respondents could reply Poor, Fair, OK, Good or Great, results were clumped into two categories (Poor, Fair, OK or Good, Great) for analysis. Not all denominators are 59 as some patients did not access certain services or failed to respond to certain questions.

The survey results most directly related to client need are included in **Table 3.14** below.

Table 3.14 – Grand Junction Patient Satisfaction Survey Results

Ease of getting into care:	% Saying Poor, Fair, OK	% Saying Good, Great
Ability to get appointment when wanted	(8/57) 14%	(49/57) 86%
Phone messages returned in a timely manner	(10/57) 18%	(47/57) 82%
Location of clinic	(12/57) 21%	(45/57) 79%
Waiting time and staff at the visit:		
Time in waiting room	(4/57) 7%	(53/57) 93%
Waiting time in exam room	(4/57) 7%	(53/57) 93%
How well physician(s) listened to me	(3/57) 5%	(54/57) 95%
Physician(s) explained things in a way I could Understand.	(2/57) 4%	(55/57) 96%
Physician(s) gave me good advice and treatment	(4/58) 7%	(54/58) 93%
Physician(s) were helpful and approachable	(4/58) 7%	(54/58) 93%
Physician(s) treated me with respect	(1/56) 2%	(55/56) 98%
Ratings assigned to other staff present at clinic:		
Ability to get an appointment at Marillac Dental Clinic when I need it	(5/36) 14%	(31/36) 86%
Marillac dentists and staff explain treatments and care in a way I can understand	(5/34) 15%	(29/34) 85%
My interest in a patient support group on each clinic day?	(22/39) 56%	(17/39) 44%

In regard to clients seen in Durango, 27 surveys were sent out to patients seen at least once in 2010-2011. Surveys were anonymous and patients returned surveys without names in pre-stamped, addressed envelopes included with the survey. Surveys were sent out July 2011. There were 7 replies for a response rate of 26 percent. While respondents could reply Poor, Fair, OK, Good or Great, results were clumped into two categories (Poor, Fair, OK **or** Good, Great) for analysis. Not all denominators are seven as some patients did not access certain services or failed to respond to certain questions. Results need to be interpreted with caution due to very small population size.

Table 3.15 – Durango Patient Satisfaction Survey Results

Ease of getting into care:	% Saying Poor, Fair, OK	% Saying Good, Great
Ability to get appointment when wanted	(1/7) 14%	(6/7) 86%
Phone messages returned in a timely manner	(0/7) 0%	(7/7) 100%
Location of clinic	(2/6) 33%	(4/6) 67%
Waiting time and staff at the visit:		
Time in waiting room	(0/6) 0%	(6/6) 100%
Waiting time in exam room	(2/6) 33%	(4/6) 67%
How well physician(s) listened to you	(1/6) 17%	(5/6) 83%
Physician(s) explained things in a way you could understand	(1/6) 17%	(5/6) 83%
Physician(s) gave you good advice and treatment	(1/6) 17%	(5/6) 83%
Physician(s) were helpful and approachable	(1/6) 17%	(5/6) 83%
Physician(s) treated you with respect	(1/6) 17%	(5/6) 83%

Needs identified by the Part D provider

Based on needs assessment of clients who are women, infants, children, or youth, the following are top priorities for Part D Children's Hospital Immunodeficiency Program:

- *HIV-infected patients not detected; lack of a coordinated outreach effort for HIV-infected women:* It is estimated that more than 20 percent of HIV-infected people in Colorado are

unaware of their diagnosis. These individuals, compared to the general population, are more likely to be young, homeless, substance abusers, or have depression or another mental illness. The statewide service system lacks a coordinated program for testing women. CHIP's plan is to develop collaboratively a new outreach program for women. CHIP also intends to provide social work services (medical case management) to women who are not pregnant.

- *Retention in Care for Youth and Women:* CHIP is working proactively to identify and develop retention strategies for those patients who are at-risk of falling out of care or who have missed numerous appointments.
- *Transition of youth:* CHIP has been working collaboratively with adult care providers to successful transition youth at age 25 to adult providers.
- *Adoption:* CHIP continues to have an influx of HIV-positive pediatric children (aged 0-13) who are adopted from foreign countries. Assisting these children and their families medically and psychosocially is a priority for our pediatric team.
- *Substance abuse services:* CHIP's capacity to counsel patients is inadequate for the demand. While substance abuse is not a common source of HIV infection, it is a major factor in limiting adequate therapy to patients. There is a special need for residential care, which is almost totally lacking in Colorado.
- *Expand mental health services:* In spite of increasing capacity in this area, CHIP lacks sufficient resources for timely management for all patients needing this resource. In some cases they cannot intervene when families are destabilized or when medical problems are exacerbated by non-attendance; non-adherence; dysfunctional life style; or inability to start therapy. While CHIP provides mental health care in clinic, the clinic lacks ready access to a psychiatrist who can prescribe psychotropic medications. This need will be met through collaboration with IDGP, which has a psychiatrist readily available for this purpose.
- *Lack of medical payer source:* The majority of HIV-infected young adults aged 18-24yr (57 percent) and many women do not have health insurance and do not qualify Medicaid/Medicare. Consequently, they would have great difficulty accessing health care services without Ryan White funding.

Chapter 4 – Specific Needs of People who are Unaware of their HIV-Positive Serostatus

A. Estimated Number of PLWH/A Unaware of their HIV-Positive Serostatus

The estimated number of living HIV positive individuals in Colorado who were unaware of their status as of June 30, 2011, using the Estimated Back Calculation (EBC) methodology, is calculated as follows:

$$\frac{.21 \text{ national proportion of undiagnosed HIV}}{(1 - .21) = .79} \times \frac{11,198 \text{ people diagnosed with HIV and living in Colorado as of 6/30/2011}}{1} = 2,977 \text{ estimated Coloradans unaware of their HIV positive serostatus}$$

In terms of geography, applying the same EBC methodology, it is estimated that the total breaks down as follows:

Denver Area 2,312
Outside the Denver Area 665

B. Outreach, Counseling and Testing, Referral, and Linkage to Care Needs

The needs of PWH/A who are unaware of their serostatus can be better understood by analyzing data about people who delay HIV testing. Over a third of the 2,154 people (35 percent) diagnosed with HIV in Colorado from 2006 through 2010 received a diagnosis of AIDS within a year of their initial HIV diagnosis, most of whom received their AIDS diagnosis at almost the same time as they found out they had HIV. These cases are referred to as “concurrent HIV/AIDS” and **Table 4.1** shows the percent of each demographic and risk group that received such diagnoses. Of the 1,846 males diagnosed from 2006-2010, 36 percent had concurrent diagnoses as compared to 32 percent of the 308 females diagnosed during that time. Among MSM, 34 percent had concurrent HIV/AIDS diagnoses and among heterosexual men, 49 percent had concurrent diagnoses. Those under the age of 35 were much less likely to have had concurrent diagnoses compared to those 35 and over (23 percent versus 42 percent). Almost half (47 percent) of those over 45 had concurrent diagnoses. Among race/ethnic groups, whites and African Americans had similar percentages of concurrent diagnoses (32 and 34 percent respectively), and 37 percent of U.S. born Latinos had concurrent diagnoses. However the percentage of Latinos born outside the U.S. with concurrent HIV/AIDS diagnoses was much higher at 56 percent.

Table 4.1 - Percent of all Coloradans diagnosed (Dx) between 2006 and 2010 with concurrent HIV/AIDS diagnoses by demographic, risk, and geographic groups

	Concurrent HIV/AIDS Dx		Non-concurrent AIDS Dx		HIV		Total
	N	%	N	%	N	%	N
All	762	35	122	6	1270	59	2,154
Sex at Birth							
Male	662	36	108	6	1076	58	1,846
Female	100	33	14	5	194	63	308
Age Category							
<25	25	17	6	4	118	79	18
25 - 34	162	25	32	5	453	70	647
35 - 44	228	37	45	7	339	55	612
45 - 64	317	46	37	5	332	48	686
65 and over	30	50	2	3	28	47	60
Race/ Ethnicity by Birth Origin							
White-US Born	359	32	70	6	702	62	1,131
Latino-US Born	143	37	25	7	214	56	382
Black-US Born	79	32	12	5	153	63	244
Other US Born	17	33	3	6	31	61	51
Latino - Non-US born	100	57	3	2	74	42	177
Other - Non-US born	64	38	9	5	96	57	169
Documented Transmission Category							
MSM	453	34	75	6	823	61	1,351
IDU	40	40	10	10	49	50	99
MSM & IDU	38	31	13	11	70	58	121
Male Heterosexual	56	49	7	6	51	46	114
Female Heterosexual	63	31	10	5	129	64	202
Other	2	14	-	-	12	86	14
Unknown	110	44	7	3	136	54	253
County Type of Residence							
Denver Metro	568	35	104	6	970	59	1,642
Non-Denver	194	38	18	4	300	59	512

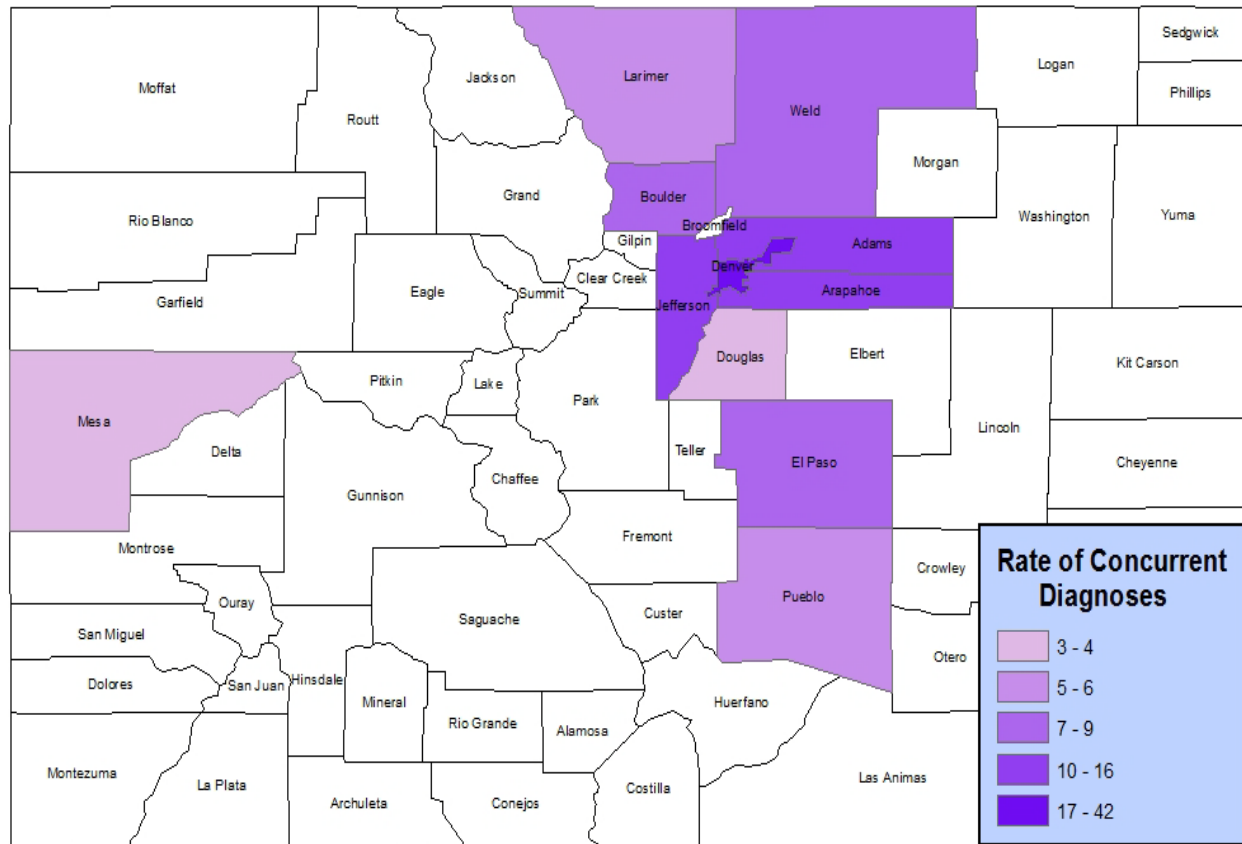
* All percentages have been rounded to the nearest whole percent and may not equal 100%.

In many ways, the rates of concurrent diagnoses mirror the rates of HIV cases in general, with the highest concentrations in the Denver area. Overall, there was only a 3.3 percent difference between the proportions of concurrent diagnoses in the Denver area and other parts of the state. However, a closer look shows that some parts of the state have higher proportions of concurrent diagnoses relative to the total number of incident cases than others. An analysis of the proportion of concurrent cases relative to total incident cases using geocoded data from 2007 to mid 2011 was conducted at both the county and zip code level. This time period was chosen because address data were not systematically entered into HARS prior to 2007. The analysis showed that among counties with at least 25 incident cases during that time period, the proportion of concurrent cases ranged as high as 56 percent of the total HIV incident cases. Among zip codes with over 10 incident cases during that time period, the proportion ranged as high as 69 percent.

Figure 4.1 displays the geographic distribution of the rates of concurrent cases diagnosed between 2007 and mid 2011 by county. **Figure 4.2** shows the proportions of concurrent diagnoses relative to the total number of cases of HIV by county during the same period, excluding counties with less than 25 incident cases. However, it is important to note that among those excluded counties that had at least one incident case during that time period, an average of 41 percent of cases involved concurrent diagnoses. The proportions ranged from zero to 100 percent. This analysis shows Weld County with the highest proportion of concurrent diagnoses at 56 percent, although the incident rate in Weld County is relatively low, accounting for two percent of the total cases in Colorado. Weld is followed by Jefferson with 41 percent concurrent cases and eight percent of the epidemic, Adams with 40 percent concurrent cases and 10 percent of the epidemic, and Boulder with 38 percent of concurrent cases and four percent of the epidemic. Denver County had, by far, the highest number of concurrent diagnoses (N=235), but the proportion of concurrent cases relative to total cases in Denver County was 33 percent, slightly below the state average of 35 percent. Forty percent of all incident cases during that time period were in Denver County.

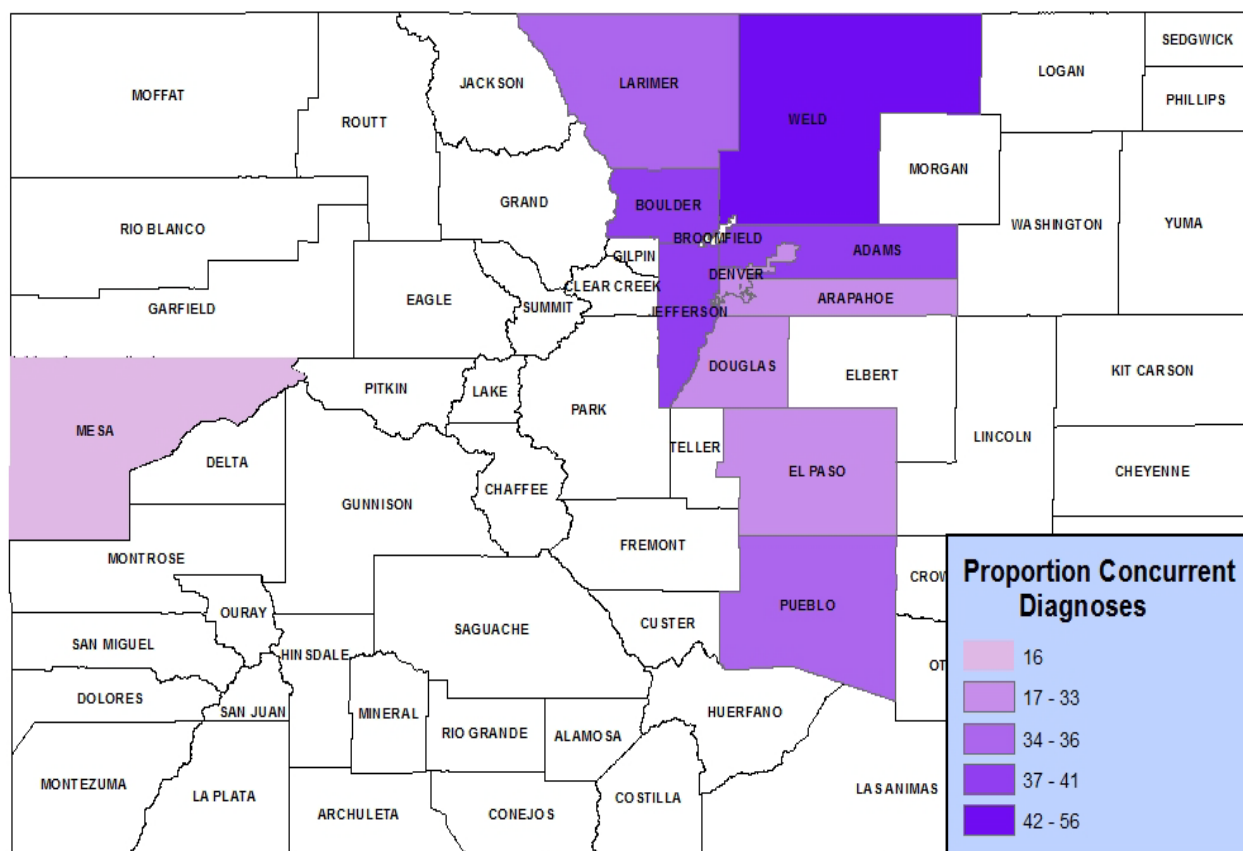
A similar analysis of the distribution of proportions of concurrent cases by zip code focused only on zip codes with 10 or greater incident cases over the four and a half year period. All of the zip codes with the most reported incident cases during this period (>30 incident cases; range = 32 to 88 cases) were located in the Denver area and had proportions of concurrent diagnoses close to or below the state average of 33 percent. Zip codes with the highest proportions of concurrent diagnoses (>40 percent of incident cases) but with incident case numbers less than 30 during the four and a half year period were located in Denver, Jefferson, Adams, El Paso, and Weld counties. A total of 62 zip codes around the state with low HIV incidence had rates of concurrent HIV and AIDS diagnoses of at least 50 percent.

Figure 4.1 - Rates per 100,000 of Colorado incident cases of HIV with concurrent AIDS diagnoses: 2007-2011 by county



Counties in white had fewer than 25 HIV cases diagnosed from 2007 to mid 2011 and were excluded from the analysis.

Figure 4.2: Proportions of Colorado incident cases of HIV with concurrent AIDS diagnoses relative to all incident HIV cases: 2007-2011 by county



Counties in white had fewer than 25 HIV cases diagnosed from 2007 to mid 2011 and were excluded from the analysis. Collectively, the average proportion of concurrent cases relative to all incident cases for those counties was 40 percent and ranged from 0 to 100 percent.

Drawing from the 2011 needs assessment, survey respondents who had reported the same calendar year of diagnosis for their HIV and AIDS were considered as having concurrent diagnoses. Note that this could potentially underestimate the number of respondents who had an AIDS diagnosis within 12 months of HIV if they did not occur in the same calendar year. Overall, the sample of survey respondents had a much lower proportion of those with concurrent HIV/AIDS diagnoses than the Colorado epidemic as a whole. Only 22 percent of all survey respondents self-reported having had a concurrent diagnosis. This lower percentage was prevalent throughout all of the demographic categories, not exceeding 25 percent in any category. Among the survey respondents who were diagnosed with HIV between 2006 and 2010, 27 percent had a concurrent diagnosis. Those categories with the highest proportions of people with concurrent diagnoses in that five-year period, immigrants and those over 44 years of age did not exceed 35 percent. There were 15 (two percent) respondents whose diagnoses were only one year apart, some of which could have been classified as concurrent if the month of diagnosis had been collected.

When asked why they decided to test for HIV at the time they were first diagnosed, survey respondents who had concurrent AIDS diagnoses most commonly responded that they did so due

to illness (see **Table 4.2**). This is especially high given that illness was not one of the choices provided on the survey, and respondents wrote it in under “other”. Responses such as “my doctor suggested it” and “it was offered during a medical visit” were also frequent among this group and could also indicate that many of them were sick at the time. Those who did not have an AIDS diagnosis soon after their initial HIV diagnosis most commonly reported testing because they wanted to know their status, with only 15 percent reporting that it was because their doctor suggested it and 11 percent due to illness. Those without concurrent diagnoses much more commonly responded that they tested because a sexual partner had tested positive than those with concurrent diagnoses (16 percent versus seven percent). This was also the case for those reporting testing because an organization offered it (11 percent versus five percent), suggesting the need for testing to be made available in more venues that people tend to access. There were few differences in the reported reasons for testing between those living in the Denver area and those outside of Denver. Five percent of women who did not have concurrent AIDS diagnoses reported testing due to pregnancy, and only two percent tested because it was offered to them by an organization. This compares to 14 percent of MSM and 13 percent of IDU who were offered testing at an organization, suggesting the need to offer testing to women in more places that they are likely to frequent.

Table 4.2 - Top five reasons for testing of survey respondents diagnosed with AIDS in the same year as HIV compared to those who did not have AIDS

Concurrent HIV/AIDS diagnoses (N=190)		Non-concurrent (different calendar-year) or no AIDS diagnosis (N=655)	
I became sick*	30%	Wanted to know status	29%
My doctor suggested it	28%	Had unprotected sex	18%
Wanted to know status	16%	Sexual partner tested positive	16%
Offered during medical visit	13%	My doctor suggested it	15%
Sexual partner tested positive	7%	I became sick*	11%
Had unprotected sex	7%	Organization offered it	11%

*Written in as “Other” response

Respondents were asked to mark all that apply. Responses do not sum to 100 percent.

Twelve people who had received an AIDS diagnosis soon after being diagnosed with HIV for the first time participated in one-on-one interviews. All but four had been initially diagnosed with HIV within the 12 months prior to participating in the interview. Four of the interview participants reported never having been previously tested for HIV. Three reported that the last time they tested negative for HIV was between two and six years prior to their HIV diagnosis. Five of the participants reported to have tested negative between three and 12 months prior to their HIV diagnosis. All of this information is based on self-report and would need to be investigated further to document the actual dates of previous negative tests before drawing any conclusions related to the time of progression to AIDS among these participants.

When asked about the reason for testing when they were diagnosed with HIV, nine of the 12 participants were tested because they were extremely ill, with all but one of the nine testing while in the hospital. Those who offered information about their initial CD4 counts said that they were already down to double and single digits when their first laboratory tests were done. Among the other three individuals, one found out he was positive after donating plasma at a time when he needed some quick money. Another tested as part of an annual routine physical, and the

third tested after finding out that a partner had tested positive. One of those who tested due to illness said that he had been misdiagnosed for around six months, having received treatment for another condition during that time.

The interview participants were then asked why they had delayed getting tested for HIV. Three of them did not think they were at risk because, as heterosexuals, they thought they did not fit the profile of people who tend to be at risk for HIV. Three gay men who were interviewed spoke of times when they were not routinely tested for HIV because they were in (what they thought) were monogamous relationships. One gay man asked his doctor why he had never tested him and was told that it was because he had children. Two other gay men thought that their doctors had been testing them over the years, but they had not. Three participants said that they had not delayed testing, reporting to have tested negative within the previous several months. When asked what might have encouraged them to test sooner, two people responded that having their doctors talk to them about HIV and offer the tests would have helped. Three others said they would have tested more often if testing were more available and affordable in the areas where they live or if testing were available in more venues with people encouraging them to test. One respondent said that he would have tested sooner if he had more information about HIV and risk behaviors.

In an effort to gain ideas from PLWH/A about how to increase HIV testing and lower the proportion of people who find out about their diagnoses when they already have advanced disease, these interview respondents were asked for their opinions about increasing testing. Most of their responses fell into two general categories: 1) Increase the availability of testing, and 2) Increase awareness and education about HIV. In terms of increasing availability, several respondents talked about how important it is for doctors to be more proactive about HIV, talking to their patients about risks and making testing available during appointments. Others mentioned the importance of outreach, with friends, PLWH/A, and outreach workers encouraging people to test and then making testing available in many venues including health centers, bars, colleges, on the streets, and in a mobile van. Two emphasized the importance of having testing available for free, and three others noted that wherever testing was offered, it needed to be discrete given the stigma surrounding HIV. Those who thought it was important to increase knowledge and raise awareness about HIV in order to increase testing offered several different ideas as to the information that would be important to share. Some thought it important for people to understand their risks better. This included: heterosexuals knowing that they could be at risk, gay men in relationships better understanding their partners' risks as well as their own, and gay men who were insertive partners ("tops") knowing they still had risk. Others thought it was important for people to understand that HIV is not a death sentence, and the sooner people find out they are positive, the earlier they can receive effective treatment and also prevent spreading the disease to their sex partners. Two people recommended that HIV testing be mandatory. Two others pointed out that some people just couldn't be encouraged to get tested no matter what one says to them.

Chapter 5 – Specific Needs of People Aware of HIV-Positive Serostatus but Not Receiving Medical Care

A. Estimated Number of PLWH/A Aware but Not Receiving Medical Care

Findings from epidemiologic data

Between July 1, 2010, and June 30, 2011, there were 11,279 Colorado cases which were considered as “living” cases (no death records had been reported) for at least one day during that time. Of those, 4,989 had a reported AIDS diagnosis and 6,290 had an HIV diagnosis. Surveillance data show that 51 percent of Colorado cases were considered to be “out of care.” It is difficult to estimate the proportion of the people diagnosed with HIV who are actually living in the state but not receiving medical care and other related services. According to HRSA, a person is considered to be “out of care” when there is no evidence that she or he received a doctor visit or a CD4 or viral load test for a period of at least 12 months. The STI/HIV Section’s Surveillance Program at CDPHE consistently tracks these two testing indicators of care as laboratories around the state report them, but they do not track doctor visits. In previous years, according to Colorado Board of Health regulations, only CD4 counts below 500 cells per cubic millimeter of blood or below 29 percent of lymphocytes that are CD4 cells were required to be reported. Non-detectable viral load results did not have to be reported prior to March 2010. Therefore, many of the viral load test results were not sent to CDPHE, especially for people who did not have an AIDS diagnosis. In March 2010, the Board of Health revised its regulations around the reporting of viral load results to include those considered as non-detectable. Due to this change, estimates of the number of Coloradans with HIV who are considered to be in and out of care based on these two indicators is more complete than in years past. However, obtaining a true and more complex assessment of the number of people with HIV in the state who are receiving medical care would need to go well beyond the tallying of the reports of these two laboratory tests.

Table 5.1 provides a demographic breakdown of people living with HIV or AIDS (PLWH/A) in Colorado who are considered to be in and out of care based on the current criteria. As of June 30, 2011, an estimated 1,697 people with an AIDS diagnosis were considered to be out of care. Among those with an HIV diagnosis, 4,045 were considered out of care. Overall, those with an HIV diagnosis were much more likely to be considered out of care at 64 percent compared to those with an AIDS diagnosis at 34 percent. Among age groups, 33 percent of those under 35 were considered as out of care. Among those 35 and older, 53 percent were considered out of care. Whites (53 percent) and African Americans (52 percent) were more likely to be considered out of care than Latinos (43 percent), and men (52 percent) more so than women (40 percent). Those living in rural areas (53 percent) were somewhat more likely to be out of care than those in the Denver area (49 percent) and in other urban areas around the state (48 percent). The documented heterosexual category had 39 percent of persons out of care, the lowest percentage compared to all the other risk groups. Among MSM, 50 percent were out of care, and among MSM/IDU and IDU, 56 percent were out of care. As previously noted, there is less current information available on PLWH/A who were diagnosed in the 1980s and early 1990s, many of which were men, which could distort this overall picture of PLWH/A in Colorado who are in and

out of care. An analysis of cases diagnosed after 1995 shows 35 percent to be out of care compared to 51 percent of the entire sample. When only these more recent cases are considered, the out-of-care percentage decreases most for the following groups: males (from 52 to 31 percent), whites (from 53 to 32 percent), people 45 and older (from 56 to 34 percent), and the MSM and MSM/IDU risk groups (from 51 to 33 percent). The difference among other demographic and risk groups was less striking.

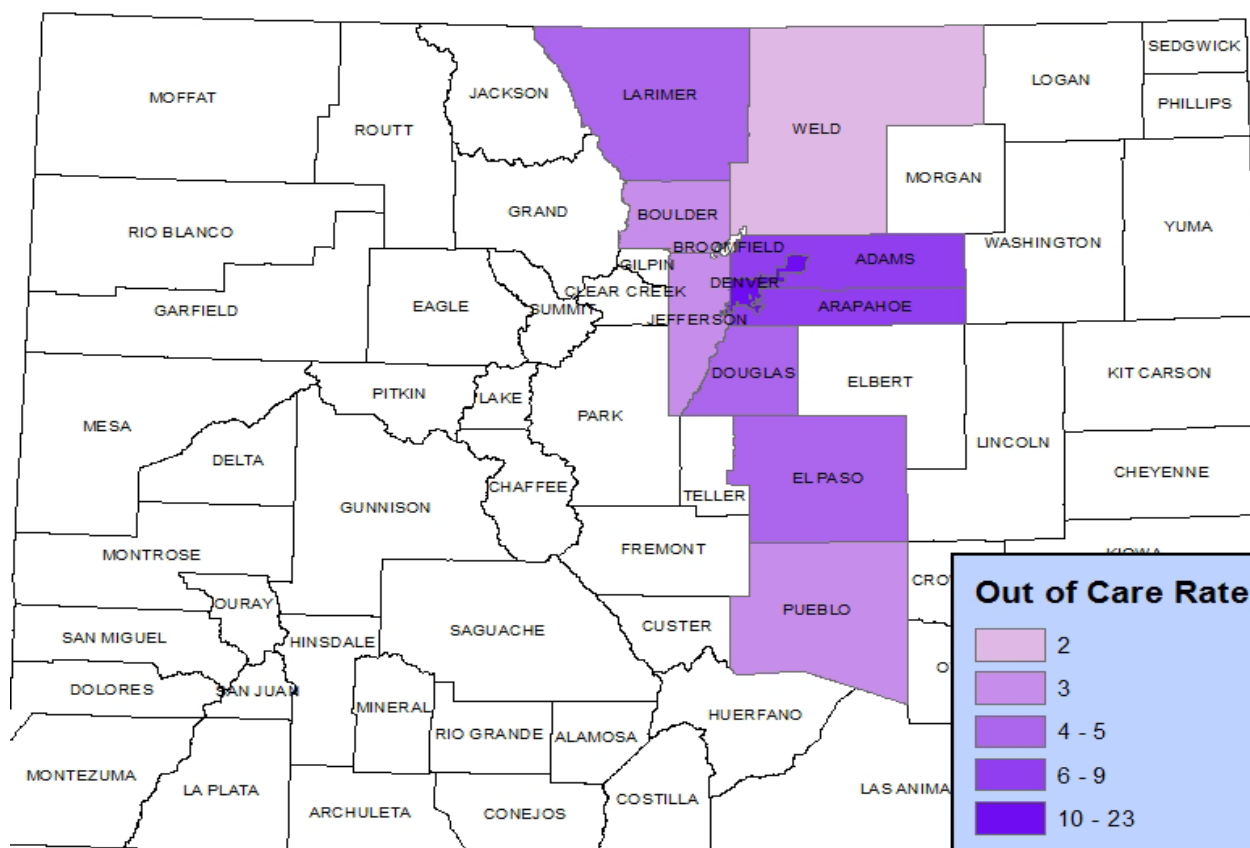
Table 5.1 - PLWH/A in Colorado in and out of care

	In Care		Out of care		Total
		%		%	
Total	5537	49.1	5742	50.9	11279
AIDS	3292	66.0	1697	34.0	4989
HIV	2245	35.7	4045	64.3	6290
Age Group					
24 and under	174	80.6	42	19.4	216
25 - 34	728	64.8	395	35.2	1123
35 - 44	1391	55.8	1103	44.2	2494
45 and older	3244	43.6	4202	56.4	7446
Race/Ethnicity					
White	3431	47.3	3823	52.7	7254
Latino	1196	57.2	895	42.8	2091
African American	773	47.6	852	52.4	1625
Other	135	54.9	111	45.1	246
Sex at birth					
Female	770	60.3	508	39.7	1278
Male	4767	47.7	5234	52.3	10001
County of Residence at HIV Diagnosis					
Other/Unknown	71	13.2	468	86.8	539
Denver Metro	4298	51.0	4124	49.0	8422
Rural/Frontier	263	46.7	300	53.3	563
Urban	905	51.6	850	48.4	1755
Risk					
MSM	3607	49.9	3618	50.1	7225
HET	669	60.9	429	39.1	1098
MSM & IDU	420	43.9	536	56.1	956
IDU	386	44.5	482	55.5	868
Unknown	399	38.6	636	61.4	1035
Perinatal	38	71.7	15	28.3	53
Other	18	40.9	26	59.1	44
Year of HIV Diagnosis					
Unknown	9	34.6	17	65.4	26
Before 1990	580	21.5	2123	78.5	2703
1990 - 1995	1064	41.0	1532	59.0	2596
1996 - 2000	955	53.9	818	46.1	1773
2001 - 2005	1188	61.9	732	38.1	1920
2006 - 2011	1741	77.0	520	23.0	2261

An analysis of people who were diagnosed with HIV from the beginning of 2007 to mid 2011 shows an overall lower percentage of PLWH/A considered out of care compared to the entire sample of Colorado cases due, in part, to increased efforts over the last several years to link more people to care upon their diagnosis. **Figure 5.1** shows out of care rates by county for those diagnosed during that time period, showing the highest rates in Denver County. However, as

shown in **Figure 5.2**, an analysis of the proportions of people out of care by county relative to the total number of incident cases in each county shows Denver County in the middle range at 20 percent, the same as the average of all counties with 25 or more incident cases. Larimer and Douglas counties had proportions above the average at 31 and 29 percent respectively. Eleven other counties had proportions of out of care cases of at least 25 percent and ranging up to 100 percent, however, all were low incidence counties, with 11 or fewer total incident cases during the time period.

Figure 5.1 - Rate per 100,000 of PLWH/A in Colorado diagnosed between 2007 and 2011 considered out of care by county



Out of Care Proportion

15
16 - 19
20 - 22
23 - 26
27 - 39

Findings from CAREWare data

Below are highlights from the CAREWare data about the demographic characteristics of PLWHA most likely to be out of care :

- V06152012 Colorado 2012 Statewide Coordinated Statement of Need

- Individuals with private insurance were less likely to have dropped out of OA than any other insurance categories.
- PLWHA between the ages of 13 and 24 dropped out of OA at higher rates than any other age group.
- PLWHA between the ages of 45 and 64 tended to drop out of OA at lower rates than any other age group.

In addition, PLWHA not accessing OA have a different demographic makeup than the Part A service client population as a whole (see **Table 5.2** below). When compared to all Part A service clients, individuals not accessing OA are less likely to have AIDS or have no insurance. This population is also more likely to be transgendered, be non-permanently housed, and be above 100 percent of the Federal Poverty Level (FPL).

Table 5.2 - Individuals Not Accessing Part A Outpatient Ambulatory Services, Compared to All Part A Service Clients

Compared to All Part A Service Clients, those NOT ACCESSING OA are:	All Part A Service Clients		Not Accessing OA	
	%	N	%	N
Three times as likely to be transgendered	0.6%	22	1.8%	20
Substantially less likely to have AIDS	50.2%	1998	39.2%	432
Substantially more likely to be HIV-positive	48.8%	1942	59.3%	653
More likely to be non-permanently housed	10.8%	428	13.8%	152
Substantially less likely to have no insurance	34.4%	1309	16.9%	176
Substantially more likely to be above 100% FPL	29.7%	1182	37%	408

Because access to quality primary medical care affects outcomes for HIV disease, it is important that PLWH are linked, engaged and retained in care. To understand and define core issues surrounding linkage to and retention in care, survey respondents in the 2011 needs assessment were asked a series of questions pertaining to their initial diagnosis.

B. Outreach, Referral and Linkage to Care Needs

Several questions included on the 2011 Needs Assessment survey asked respondents about any experiences they may have had being out of care since their initial HIV diagnosis. Of the 862 survey respondents from throughout the state, 17 percent reported that they went more than a year without receiving medical care after their HIV diagnosis or that they had never received medical services, 18 percent among Denver area residents and 14 percent of the non-Denver area respondents. When asked if they had ever gone without care for more than 12 months and why, 21 percent indicated that they had at some time been out of care; a reason was provided by 22

percent of Denver area residents and 19 percent of non-Denver area residents. Forty percent of all respondents stated that they had never gone without care for more than 12 months, and another 39 percent did not respond. Groups of survey respondents that were somewhat overrepresented among those having been out of care include: heterosexuals living in the Denver area at 26 percent; women at 24 percent; and people with AIDS at 24 percent. As would be expected, the longer the time period since a person's diagnosis the more likely that he/she would have spent some time out of care. Among this survey sample, 27 percent of those diagnosed with HIV before 2001 had spent more than a year out of care, whereas only 12 percent of those diagnosed since then had been out of care in the past. The majority of the survey respondents are currently receiving HIV care and do not represent all of those living with HIV in Colorado.

Forty percent of all respondents who were ever out of care said it was because they could not afford it. A somewhat higher percentage of respondents from outside of Denver (47 percent) reported this as their reason compared to those living in Denver (36 percent). The next most common response offered by 27 percent of those spending time out of care (29 percent from Denver and 24 percent from out of Denver) was due to insufficient insurance. Table 9 shows the frequency with which each reason was chosen by respondents in Denver and outside of Denver. A higher percentage of respondents from outside of Denver (20 percent versus 11 percent) cited a lack of transportation as a reason for being out of care, and 22 percent of those out of Denver cited poor personal treatment by a provider as their reason compared to only eight percent of the Denver-based respondents (Table 5.3).

Table 5.3 - Survey respondents' reasons for ever spending more than 12 months out of care. Red indicates high frequency response while green indicates low frequency response.

Reason Out of Care	Denver N=129		Non-Denver N=50		Total N=179	
Structural Barriers						
	N	%	N	%	N	%
Could not afford it	47	36	23	47	71	40
Insufficient insurance	37	29	12	24	49	27
Too many requirements/too much paperwork	20	16	5	10	25	14
Lack of transportation	14	11	10	20	24	13
Did not qualify for services	13	10	6	12	19	11
Individual Barriers						
Did not think I needed care because I wasn't sick	27	21	9	18	36	20
Did not want anyone to find out I had HIV	25	19	9	18	34	19
Did not think medical care would do me any good	19	15	5	10	24	13
Did not know where to go for medical care	13	10	6	12	19	11
There was no one to help me figure out how to access care	13	10	10	20	23	13
Poor personal treatment by a provider	10	8	11	22	21	12

Survey options that were chosen by less than ten percent of respondents included: "I did not want services," "Long wait times for appointments," "A doctor or nurse told me I didn't need medical care," and "No one told me that I needed to get medical care for HIV."

Fourteen percent of the entire survey sample reported not receiving medical or related services for at least one of the following reasons: because the provider did not speak their same language; because of the attitude expressed by the provider, or because of a disability. Overall, 11 percent of the entire sample of survey respondents (10 percent of the Denver sample and 16 percent of the non-Denver sample) cited provider attitude and disrespectful treatment as a reason for not receiving services at some time, compared to two percent because of language differences, and three percent due to a disability (**Table 5.4**). A total of 25 people reported being denied some type of related services in the past or receiving highly substandard services from providers because of their HIV status.

Table 5.4 - Survey respondents not receiving care due to language differences, provider attitude, or disability

Reasons for not receiving care	Denver		Non-Denver		All	
	N	%	N	%	N	%
Total	595		267		862	
Ever unable to get services due to one of the following three reasons	70	12	47	18	117	14
Never been unable to get services due to one of the following three reasons	490	82	206	77	696	81
No Response	35	6	14	5	49	6
	N	% of 70	N	% of 47	N	% of 117
Provider not speaking language	9	13	9	19	18	15
No	48	69	31	66	79	68
No Response	13	19	7	15	20	17
Attitude expressed by provider	58	83	40	85	98	84
No	5	7	4	9	9	8
No Response	7	10	3	6	10	9
Because of a disability	19	27	9	19	28	24
No	38	54	28	60	66	56
No Response	13	19	10	21	23	20

Survey respondents who had spent time out of care also offered their perspectives on what might have helped them to access care at the time. Among the out of Denver survey respondents who provided their perspectives on this, the most common response was financial assistance and the second most common response was insurance. Emotional or mental health support, better information as to how and where to access services, and better access to transportation were also reported as important needs for accessing care. Having services be more accessible with fewer enrollment requirements was also reported by several survey respondents.

When asked for their suggestions on how to make it easier for PLWH/A to get and stay in medical and related services, non-Denver survey respondents offered many ideas. **Table 5.5** shows that most commonly, respondents thought that accessing services should be easier. This included: easing the restrictions on who qualifies for services; simplifying the enrollment processes, especially by cutting down on the required paperwork, making the applications easier to understand and complete, offering more enrollment assistance, and having more services

available in more places around the state. Secondly, PLWH/A needed to have good information about what services are available, how to access them, and any changes that may affect their health care. They also mentioned that people needed more information about HIV and about their own personal health. The third most common set of ideas concerned making sure that PLWH/A had access to affordable health care and medications, including affordable health insurance. Several suggested instituting universal health care as a way of ensuring this access. Fourthly, respondents encouraged PLWH/A to be more proactive in ensuring that their needs are met. This included ideas such as: educating oneself as to what services are available; fulfilling the requirements to access those services; being honest and following rules; complying with all doctors' directives, including making all appointments and being compliant with medications; keeping providers informed; taking responsibility for one's own health; and advocating for oneself when necessary. The fifth most common suggestion was for PLWH/A to have access to case management to help them sort out what they need and help them with accessing services. Another common set of suggestions for ensuring access to care concerned providers and staff treating people respectfully. Other suggestions included: ensuring that people had adequate income to meet their needs, providing quality care, providing mental health services; and better access to transportation.

Table 5.5 - Suggestions from Non-Denver survey respondents as to how to make it easier for PLWH/A to get and stay in medical and related services

Suggestions (N=142)	Number	Percent
Ensure easier access to services and increase availability	49	35%
Provide information on HIV and available services	30	21%
Ensure that health care is affordable	21	15%
PLWH/A should comply with medical directives and take charge of their health	19	13%
Ensure PLWH/A have access to case management	18	13%
Providers/staff should treat PLWH/A respectfully	11	8%
Ensure adequate income to meet needs	9	6%
Provide quality care	7	5%

As mentioned, fifteen people who had spent substantial time out of care since their initial HIV diagnosis participated in one-on-one interviews in which they described their experiences and needs concerning care. The length of time out of care for these participants ranged from five months to approximately 20 years, with the median time out of care at seven years. Many of them had been in and out of care several times since their HIV diagnoses. About half of these participants reported not getting into care when they first found out they had HIV. The reasons for this varied. Three of the participants said that they did not know where to go or how to go about getting into medical care. Two said that they were reluctant to go on HIV medications. One person referred to his substance abuse problems, one indicated that s/he was running from the law, and two said they were too depressed and in denial to seek medical care. One person cited the cost of care as a reason for not pursuing it right away, and another said it was due to shock and embarrassment.

When asked about reasons they had been out of care at other times since their diagnosis, poverty related issues topped the list. Homelessness and lack of transportation were the most common reasons, as participants spoke of how the overwhelming life issues associated with homelessness,

including the time it takes just to meet basic needs, having no place to keep one's drugs, and their inability to get to appointments at scheduled times became major deterrents. Others mentioned that they did not have medical insurance and therefore could not afford care. For some of the participants, mental health issues acted as deterrents to accessing care. These included serious depression, low self-worth, shame, denial, and fear. Several mentioned having had suicidal thoughts. Substance abuse problems were also cited by some as reasons for not being in care at various times since their diagnoses. Almost half of these interview participants indicated they spent some time out of care because they did not feel sick, and therefore did not see any urgency to access care. Others made reference to the amount of "red tape" involved in accessing medical services, which could prove especially problematic for those that had no identification. Additional reasons given by participants for being out of care included: legal problems, difficulties with drug side effects, and not knowing where to access services after moving to another area.

Two of the participants in the interviews were out of care at the time of the interview and said that they had no intentions of pursuing care in the future. One refused to seek care because of how he had been treated by providers at a particular clinic. He had a history of substance abuse and was denied pain medications at the clinic, and he felt highly disrespected during the process. For the other person, his reasons were both political and personal. He had suffered a number of health problems, and he saw no point in prolonging what he considered a substandard life with medications he had found toxic in the past. This was especially the case given that the medications would not cure him. He was also adamantly opposed to taking HIV medications or seeing an HIV doctor because of the huge amounts of money he saw drug makers and doctors earning. He thought that the reason there was no cure for HIV was because there was so much profit to be made in HIV care, and he did not want to contribute to that profit.

Interview participants were also asked a general question about the main reasons some PLWH/A are not getting the medical and related services that they need. Most commonly respondents cited the stigma that still surrounds HIV, keeping people from accessing care because they are afraid that others will find out about their status. Others responded that a lack of resources keeps some people out of care due to the costs of care, medications, and transportation. Also cited were mental health problems such as depression, which can cause people to not care about their own wellbeing and just give up. Other reasons included: addiction; denial about the severity of HIV; poor accessibility of services, especially outside of Denver; lack of knowledge about what to do or where to go to get services; legal problems; the large amounts of "red tape" involved in accessing care; and disillusionment with providers.

Interview respondents most often cited both better knowledge and support as the main things that would help people access care. The knowledge needed included information about where and how to access care as well as more knowledge about HIV itself. Some suggested how important it would have been to have someone talk to them when they were first diagnosed to offer them support and to ensure that they knew what to expect from the disease and how to access care and related services. The types of support mentioned included having someone to talk to that would be encouraging and who would let them know that HIV was not the "death sentence" it once was. Several people thought it would be especially important to talk to and get encouragement from others living with HIV. Others mentioned the importance of getting emotional support from

counselors and doctors. Additional responses to the question about what would help PLWH/A to access care included: 1) Improved access to services in terms of both closer locations and easier enrollment processes, 2) More life stability including access to housing and transportation, 3) Stronger will on the part of individuals, 4) Treatments that had fewer side-effects, 5) Better access to health insurance, 6) Having HIV stigma addressed so that people were less ashamed to seek care, 7) Getting sick, and 8) Incentives.

A principal recommendation arising from the needs assessment for assuring that more PLWH/A access HIV care and related services involves people being provided several types of assistance, especially when they are first diagnosed, utilizing a comprehensive approach. These types of assistance include: 1) Providing emotional and social support, including counseling and the opportunity to meet with a peer or peers who are also living with HIV; 2) Providing information about HIV and how it is likely to affect them as well as better information about HIV treatment so that PLWH/A can better understand the importance of treatment for their own health and that of their partners; 3) Conducting an assessment of care and treatment needs and needs for related services such as help accessing basic needs, mental health support, or substance abuse treatment; 4) Providing active linkage to care including access to affordable and quality care, better information as to how and where to access care, and assistance with enrollment processes; 5) Expanding the availability of quality HIV medical care and other services in more parts of the state and more transportation assistance for accessing services that are far away from where clients live; and 6) Providing active linkage to other needed services based on the assessment, including expanded assistance for accessing housing and other basic needs.

To improve strategies to address these needs, Part B convened a summit on early intervention services in November 2010. Key findings of the summit were as follows:

- The currently funded EIS sites have somewhat different target audiences and service offerings. Duplication is minimal.
- CDPHE offers a “safety net” to ensure that people are offered assistance linking to HIV care through the DIS interviews.
- Formal EIS is more available in the urban Denver area and less available in the rural areas.
- There is a need for better coordination among the EIS providers, and between the HIV testing providers and the EIS providers. This is particularly true for the private medical settings.
- There are excellent models of EIS being utilized and developed in Colorado.

At the conclusion of the Summit, the following areas of potential agreement were identified and given preliminary acceptance by the attendees:

1. People have a right to refuse HIV care. The early intervention and linkage to care systems should honor that right.
2. If people do not refuse HIV care, they should have multiple opportunities to receive information and assistance to access care. No one should “fall between the cracks.”

3. Early intervention and linkage to care should be offered as quickly as possible following a positive HIV test result.
4. Early intervention and linkage to care systems should minimize the barriers faced by people in terms of time, trouble, disclosure, cost, and paperwork.
5. Follow up for all early intervention and linkage to care referrals should be verified, preferably directly with the provider to whom the referral was made.
6. If there is good reason to believe people have failed to access care, or have lapsed in care, they should be proactively offered additional assistance.

Chapter 6 – Needs of Special Populations

A. Adolescents

Providing comprehensive psychosocial and medical care to young adults and youth who are living with HIV/AIDS reveals that this population experiences especially challenging circumstances and unique challenges. Often there is a cyclical pattern seen with youth; the issues and behaviors that can contribute to a youth being vulnerable to acquiring HIV, are often the same issues that create barriers to good management of the disease once acquired.

In practice it is documented that youth living with HIV and AIDS often have a history of family fracture or parental rejection. This rejection can occur due to clashing generational or cultural norms and expectations, a youth's LGBTQI identification, or the youth's HIV status itself.

Family fracture and parental rejection can result in youth's vulnerability to homelessness, which can then, in turn, contribute to a youth's risk for exposure to violence and exploitation, HIV, and substance use or abuse. This phenomenon is due to youth being forced to engage in survival sex and other risky behaviors, in order to ensure that basic needs like housing and food are met.

Homelessness and unemployment are also common barriers to medical adherence for youth living with HIV/AIDS. If a youth is living a transient lifestyle or struggles with limited resources, it is difficult for youth to attend regular medical appointments and adhere to a daily medicine regime. Obviously, a lapse in adherence to HIV medicines renders youth vulnerable to resistance to medicines and which ultimately reduces the medicines that are available to that particular patient.

Another major challenge facing youth living with HIV/AIDS is substance use and abuse. This phenomenon is often linked to chaotic childhood and a personal history of trauma. Not only is substance use and abuse detrimental to good mental and physical health, particular to individuals living with HIV/AIDS, but it also interferes with patients' ability to adhere to medicines.

Normal developmental characteristics also can present a challenge to youth living with HIV/AIDS. Adolescents' less developed capacity to attach future consequences to present actions, and the characteristic feeling of invincibility renders youth vulnerable to acquiring HIV and can also lead to youth being resistant to take HIV medicines unless or until they "feel sick".

Additionally, normal social development of adolescents presents unique challenges for those living with HIV and AIDS, as youth begin to develop an interest in dating and sexual activity. Issues of sexual identity, gender identity, shame, stigma, disclosure, and critical responsible choices arise at this time. Mental health challenges also can arise at this time, as young adults are differentiating from family and/or are often dealing with premature, sometimes forced, independence.

A focus group conducted by CDPHE on adolescent HIV issues included adolescents living with HIV. Several of the HIV positive youth talked about how afraid they were when they first learned that they were infected, describing how they thought their lives would soon end. This was more the case for those who knew little about the disease. Though some still admitted to occasional feelings of depression and regret, all of the HIV positive respondents currently thought of HIV as manageable. Due to receiving good medical and other care and expanded education about the virus, some described it as being very similar to other chronic diseases for which people must take medicine and maintain healthy behaviors. Two mentioned that there were worse diseases one could have. Three stressed that they did not think about HIV very much.

“I’m still on the fence about it because some days, I look in the mirror, and I just start crying.... I’m mad at myself. I get mad at myself for not protecting myself. But then, I stop and I think about it. I’m like, you know it could be worse.... You’re at the stage where you can still keep it under control.”

“Of course, there are a lot worse things that could happen to you.”

“I’m thinking of what I’m going to do on Friday. HIV is not on my list of things to think about. I mean, I’m affected by it every single day of my life, (but) I don’t think about it until it’s time to take my medicine, or until it’s mentioned.”

The participants who were living with HIV did emphasize the impact that HIV-related stigma has had on them. Although some were very open about their HIV status, outside of intimate relationships, most had only disclosed to a limited number of people. One had disclosed to no one outside of her family for fear of being judged. They mentioned the ignorance about HIV that was prevalent among the general public which influenced discrimination and often led to hurtful situations with people to whom they were close. These included incidences such as friends not wanting to drink from the same glass or a partner not wanting to kiss because of a cut in the mouth. Disclosing to potential sex partners could also lead to rejection, rumors being spread, and being treated like a pariah.

In the focus groups, a common theme was the desire of youth living with HIV or AIDS to have opportunities to meet other youth PLWH/A, to share stories and dispel stigma. Other themes from the participants are equally applicable to youth at risk as well as those living with HIV:

1. Address issues of mental health and substance abuse
2. Heed the call to provide young people with access to support (someone to talk to)
3. Assure that free condoms are readily available in many locations where young people congregate
4. Improve the quality and quantity of the HIV-related education they receive.

B. Injection Drug Users

On the 2011 Colorado needs assessment, IDU expressed a need for a wide variety of services. The average number of unmet needs among all survey respondents was 1.75 and their average total needs were 7.47. In comparison, IDU respondents expressed both more unmet needs (2.1) and more total needs (8.51). Specifically, IDU were slightly more likely than other survey respondents to report unmet need for dental care and case management, as shown in **Table 6.1**.

Table 6.1 – Ratio of met to unmet needs from IDU respondents

Need Description	Ratio of met to unmet need N=51
Visits to doctors, nurses, and other medical providers	(21.5 : 1) 45
Laboratory tests (CD4, viral load, etc.)	(21.5 : 1) 45
Help buying the prescriptions you need	(8 : 1) 36
Dental care	(1 : 1) 38
Case management	(2.1 : 1) 28
Help getting or paying for health insurance	(4.5 : 1) 33
Emergency financial assistance (utilities, etc.)	(2.6 : 1) 25
Individual or group counseling for mental health	(10.5 : 1) 23
Groceries or prepared meals	(2.6 : 1) 18
Help getting or staying in housing	(2.5 : 1) 21
Transportation to and from medical or other services	(2.6 : 1) 18
Help buying over-the-counter medications	(1 : 1) 18
Substance abuse treatment/counseling (out patient)	(all) 18

Research indicates that IDUs benefit significantly from antiretroviral treatment but that mortality remains higher in HIV-positive ART-treated IDUs as compared with non-drug user HAART-treated HIV-positive patients. Several factors contribute to the overall lower impact of HAART on mortality in HIV-positive IDUs, including delayed initiation to treatment, poor adherence to treatment regimen, interruptions in medical care and continuing drug use.

Pharmacokinetic interactions between opioid substitution drugs and antiretroviral drugs have been suspected of leading to possible complications in the treatment of opioid-maintained patients. Studies of interactions between methadone and ARV have shown both withdrawal and excess opioid syndromes, depending upon the ARV medication. Despite the increasing use of buprenorphine in drug dependence treatment, studies on its interactions with ARV remain limited. Available data, from in vitro and pharmacological studies and from case reports, require that HIV specialists manage carefully patients with both treatments. However to date, specific guidelines for HAART in opioid-maintained HIV-infected patients have not been considered necessary.¹⁵

¹⁵ Lert, F. and Kazatchkine, M. Antiretroviral HIV treatment and care for injecting drug users: an evidence-based overview Int J Drug Policy. 2007 August; 18(4): 255–261.

Co-infection with Hepatitis C is more common among IDU than among other populations of PLWH/A. Due to HAART, people coinfecting with HIV and HCV are living longer, giving complications more time to develop. These complications (cirrhosis, liver cancer, end-stage liver disease) generally develop over 20-30 years. Liver disease from HCV is now the leading non-AIDS cause of death in the U.S. in coinfecting individuals with HIV. Treatment for each disease is complicated, expensive, and has side effects. Studies have shown that HIV infection in a person who is also infected with HCV results in higher levels of HCV in the blood, more rapid progression to HCV-related liver disease, and increased risk for cirrhosis and liver cancer. As a result, HCV is now regarded as an opportunistic infection in people with HIV infection, although it is not considered an AIDS-defining illness. Studies indicate that HIV positive people with chronic hepatitis C tend to experience more aggressive liver disease, on average, than HIV negative people with HCV alone, especially if they have advanced immune deficiency. The picture is less clear for acute hepatitis C.¹⁶

C. Homeless People

The 2011 Colorado needs assessment showed that housing is a major concern for PLWH/A. Among all the issues on which survey respondents indicated a need upon diagnosis, “housing/rent assistance” was mentioned by 17 percent of the respondents, higher than emergency financial assistance and transportation issues. Overall, for every 2.2 Denver residents expressing a need for housing, 1 did not receive it; among non Denver residents, the ratio of met to unmet need was even worse (3.1:1). Needs assessment interviews provided further details. Interviewees considered having stability in their lives and being able to meet basic needs as two of the most important issues for PLWH/A, especially the need for stable housing. One spoke of how easy it is to give up on everything if a person does not have a place to live. Another talked about how important it is to have a place to go, think, and sort out how things are going and what needs to be done. A third said that if people are worried about where they are going to stay, they will not prioritize taking care of their health and how not having a place to clean up can be demoralizing. One spoke of needing a stable place to store medications properly and not risk having them stolen. Another person summarized the importance of housing stressing that once a person gets housing, other things tend to fall into place.

On the 2011 Colorado needs assessment, respondents reporting a history of homelessness since their HIV diagnosis expressed a need for a wide variety of needs. The average number of unmet needs among all survey respondents was 1.75 and their average total needs were 7.47. In comparison, people with a history of homelessness expressed both more unmet needs (3.3) and more total needs (9.55). Specifically, people who reported that they had been homeless in the last two years had the lowest ratio of received to not received for visits to medical providers and laboratory tests, as shown in **Table 6.2**. Approximately 55 percent of those who had been homeless in the last two years reported needing transportation assistance, compared to less than 30 percent of all survey respondents.

¹⁶ <http://www.hivandhepatitis.com/hcv-disease-progression/acute-hepatitis-c/3441-european-study-does-not-see-rapid-long-term-liver-fibrosis-in-hivhcv-coinfecting-people>

Table 6.2 – Ratio of met to unmet needs from respondents with a history of homelessness

Need Description	(Ratio of met to unmet need) N=88
Visits to doctors, nurses, and other medical providers	(10.9 : 1) 83
Laboratory tests (CD4, viral load, etc.)	(12.3 : 1) 80
Help buying the prescriptions you need	(4.2 : 1) 62
Dental care	(1.1 : 1) 60
Case management	(3.9 : 1) 59
Help getting or paying for health insurance	(1.3 : 1) 54
Emergency financial assistance (utilities, etc.)	(1.1 : 1) 44
Groceries or prepared meals	(1.8 : 1) 51
Help getting or staying in housing	(1.1 : 1) 47
Transportation to and from medical or other services	(1.2 : 1) 48

In some cases, living with HIV or AIDS is the major contributing cause for the homelessness. Employment may be put at risk due to periodic absences due to illness, health care appointments, and hospitalizations. Substance use and mental illness are more common among PLWH/A, and these are also risk factors for homelessness. An HIV diagnosis may also destabilize domestic or family relationships, which may result in homelessness. Gay, bisexual, and transgender youth are at greater risk of homelessness due to family rejection, and they are also at greater risk of HIV infection due to survival sex.

HIV may be only one of multiple health conditions confronting a homeless person. People who are homeless have higher rates of illness and chronic diseases than the general population. The conditions of homelessness including nutritional deficiencies, exposure to the elements and extreme weather, and other lifestyle factors, can exacerbate or cause chronic health problems. According to a study by HUD, more than two-thirds of those who were homeless suffered from a chronic illness and nearly a quarter indicated they needed to see a doctor in the last year but were unable to do so.

For homeless individuals living with HIV/AIDS the conditions of homelessness are even more dire. The impact of HIV/AIDS on a person's immune system makes homelessness a serious health risk. Homeless shelters, while they provide respite from the elements are often a significant threat to people with HIV/AIDS. Shelter conditions can expose people with HIV/AIDS to dangerous and even life threatening infections such as hepatitis A, pneumonia, tuberculosis, and skin infections. One study shows that homeless people with HIV who sleep in a shelter are twice as likely to have tuberculosis as the general shelter population.

Homelessness not only puts individuals with HIV/AIDS at a high risk of contracting other infections, it also makes obtaining and using common HIV/AIDS medications more difficult. Antiretroviral medications used to treat HIV come with demanding and rigorous regimens. Without stable housing, access to clean water, bathrooms, refrigeration, and food the likelihood

of taking the medication on a regular schedule, which is vital for proper treatment, is severely impaired.¹⁷

CDPHE staff conducted a focus group with homeless PLWH/A as part of the needs assessment process. Major findings were:

- The overall system of shelters and other services for homeless people is not prepared to deal with many of the issues facing homeless PLWH/A. Misinformation can lead to safety concerns and lack of access to needed services.
- Homeless PLWH/A with substance use problems face additional barriers, since many housing and homeless programs require sobriety as a condition for enrollment.
- Homeless PLWH/A with criminal records face additional barriers, since many housing programs are not open to people with recent felony convictions.
- Homelessness is a recurring issue in the lives of PLWH/A. It is important to have services that can “check in” with people even after they have transitioned to permanent housing.
- Services for PLWH/A in Colorado, on average, are welcoming of homeless people. The need to have official identification can be a problem, particularly when people are newly homeless or when documentation has been lost or stolen.
- Having a safe, secure place to store HIV medications is a major concern.
- Receiving mail concerning available services or need to recertify can be a problem. Most shelters will receive mail for homeless people, but will discard it if it is not retrieved promptly (e.g., within two weeks of delivery).
- Experiences accessing health care are mixed. In some cases, clinics make the process as simple and easy as possible. In other cases, clinics make unwarranted assumptions or otherwise make their facilities feel unwelcoming to homeless people. Clinics outside Denver are more difficult to access, in general.
- Getting dental care, especially complicated dental care, is difficult. It is not uncommon for providers of complicated dental care (requiring anesthesia, for example) to have long waiting lists and to require cash payment prior to providing services. Dental programs designed for PLWH/A are much less of a problem; it is when the dental needs necessitate “outside specialty services” that the problems occur.
- Transportation is a major concern. It is not uncommon for homeless people to walk five or more miles to obtain services, especially since RTD in the Denver area tightened eligibility for their discount program to include only people with SSA disability determination.

¹⁷ <http://www.endhomelessness.org/content/article/detail/1073>

- It can be frustrating and time consuming for homeless PLWH/A to put their names on waiting lists for multiple housing providers. A more centralized system would be better. Waiting lists are very long, particularly for Section 8 housing.

D. Transgender People

Because transgender health needs are complex and may intimidate health care providers, and due to the general lack of culturally competent medical settings, transgender people may struggle to find appropriate medical care. Lack of stable employment and other financial barriers may also hinder access to health insurance and medical care. Other barriers to care include fear of exposure or disclosure, geographic isolation, social isolation, and a dearth of transgender-specific clinical research and medical literature. Lack of gender-variance variables on medical history forms may also present an obstacle to care. In addition, health insurance policies may not cover expensive treatments and surgeries sought by many transgender people; most insurance companies, employee health plans, and health maintenance organizations (HMOs) specifically exempt coverage for sex reassignment surgery, hormones, and electrolysis, deeming them elective or cosmetic.¹⁸

Given these overall barriers to health care, it is not surprising that many HIV-infected transgender patients avoid health care providers because they fear insensitive treatment or have perceptions of being judged. Some of these patients also may have had poor interactions with previous providers. Providing a spectrum of care may help patients overcome resistance to treatment if these services are provided in a nonjudgmental manner. These services include:

- HIV-related medical care that includes HIV prevention and harm reduction counseling
- Mental health and substance use screening and services
- Transgender-specific care, such as hormone therapy and case management services¹⁹

Health care for transgender people living with HIV or AIDS should include services uniquely tailored to their needs, including:

- Potential complications of hormone therapy and need to monitor hormone therapy closely
- Breast cancer screening for female-to-male clients with remaining breast tissue and male-to-female clients who have received hormone therapy for at least 5 years
- Cervical Pap tests should be performed in any HIV-positive female-to-male client with cervical tissue.
- Enhanced screening for the cardiovascular effects of hormone therapy
- Routine, annual screening for substance use and mental health issues, with referrals as needed to providers with knowledge and experience in transgender treatment.

¹⁸ http://www.sfaf.org/hiv-info/hot-topics/beta/beta_2009_sumfall_transgender2.pdf

¹⁹ <http://www.hivguidelines.org/clinical-guidelines/transgender/care-of-the-hiv-infected-transgender-patient/>

E. Foreign born people living with HIV or AIDS

An estimated 9.8 percent of Colorado's population is foreign-born. A higher percentage of foreign-born persons in Colorado moved here in the last ten years as compared to many other states. Colorado also has a lower proportion of naturalized citizens and a higher prevalence of undocumented immigrants than many other states. The percentages of foreign-born persons living in suburbs and smaller metro areas is increasing nationally and in Colorado.

Overall there seems to be a paradox regarding the health of foreign born people: they exhibit better health outcomes despite their relatively lower socioeconomic status. For example, foreign born persons have:

- Lower overall mortality rates than natives
- Higher life expectancies, most pronounced for Black and Hispanic people who are foreign born.
- Longer life expectancies than those in their sending countries as well
- Better perinatal outcomes, especially for Hispanic documented immigrants
- Lower incidence of mental illness (increases with time in US)
- Lower body mass index, no difference after 10 years in US
- Less hypertension and cardiovascular disease (opposite for Asians)

There are some exceptions to this, however. Diabetes more common among migrants, they are more likely to have tuberculosis, and they have higher rates of job-related injuries, although they also have lower rates of unintentional injuries.²⁰

In terms of HIV, the number and percentage of foreign born people among the newly diagnosed appears to be increasing, as shown in **Table 6.3**.

Table 6.3 – Annual HIV diagnoses of foreign-born people at Denver Health, 2005 - 2009

Year	Total new HIV diagnoses	Total FB	Percent FB
2005	139	23	16.5%
2006	128	21	16.4%
2007	104	18	17.3%
2008	132	34	25.8%
2009	113	28	24.7%

A cross-sectional analysis of foreign-born patients at University of Colorado Hospital and a satellite clinic sheds light on the situation in Colorado. The study involved 150 foreign born patients from 46 countries as well as 59 randomly selected US born patients. The foreign born patients were more likely female (39 percent vs. 17 percent), younger (40 vs. 45 years), and were more likely to identify as heterosexual (69 percent vs. 23 percent) compared to US born patients. The foreign born patients were less likely to use drugs (6 percent vs. 38 percent) and tobacco (16 percent vs. 44 percent) compared to US born patients. There were no significant differences

²⁰ Cunningham, Rube, Narayan. Health of Foreign-born people in the US: A Review. Health and Place. 2007

between foreign born and US born patients in mean CD4 cell count (502 vs. 569), percentage taking ART (92 percent vs. 90 percent), or alcohol use (29 percent vs. 37 percent).²¹

Among the foreign born patients, 20 percent were refugees from their country of origin and 21 percent had HIV testing for immigration purposes only. 21 percent were tested for HIV because of immigration, ranging from 6 percent among Latin American patients to 37 percent for African patients. Illness was the most likely reason for HIV test, and foreign born patients had more than one co-morbid condition at half the rate of US born patients (45 percent vs. 83 percent).

As part of this study, a retrospective chart review was undertaken of all individuals newly diagnosed with HIV at Denver Health or University of Colorado Hospital from 2005 through 2009. Data extraction included demographics, social security number (Y or N), payment source, testing location, follow up location, country of birth, preferred language for health care visits, risk factor for HIV, outpatient HIV visits, CD4 lymphocyte levels, HIV viral RNA levels, initial genotype, opportunistic infections, co morbid illnesses, STDs at time of HIV diagnosis, and deaths. CDPHE supplied date of HIV diagnosis, CD4 lymphocyte levels, HIV viral RNA levels drawn in Colorado, country of birth, opportunistic infections, new AIDS, and death data. A total of 616 individuals were selected, which included 124 foreign-born people, roughly equaling 20 percent of the sample.

Places of origin, in rank order, for the 124 foreign born persons were: Latin America (95), Africa (15), Asia (8), Europe (5), and Australia/Oceania (1). In terms of preferred language, the order was Spanish (75), English (41), and Other (9).

As shown in **Table 6.4**, foreign born people in the study were more likely to report heterosexual transmission and less likely to report MSM.

Table 6.4 – HIV risk reported by foreign born people

Risk	Total, n=616 Frequency/Percent	US-Born	Foreign-born
Hetero	91, 15%	53, 11%	38, 30%
IDU	22, 4%	21, 4%	1, 1%
IDU/MSM	30, 5%	29, 6%	1, 1%
MSM	450, 73%	374, 76%	76, 61%
NIRF	7, 1%	4, 1%	3, 2%
Unknown	11, 2%	5, 1%	6, 5%
Other	5, 1%	5, 1%	0, 0%

Figure 6.1 shows that foreign born people in the study had relatively lower CD4 counts at initiation of care, as compared to US born people.

²¹ M. Carten, et al. Characteristics of foreign-born HIV- infected individuals and differences by region of origin and gender. : Vienna - AIDS 2010

Figure 6.1 – Initial CD4 lymphocyte counts for foreign born participants as compared to US born participants

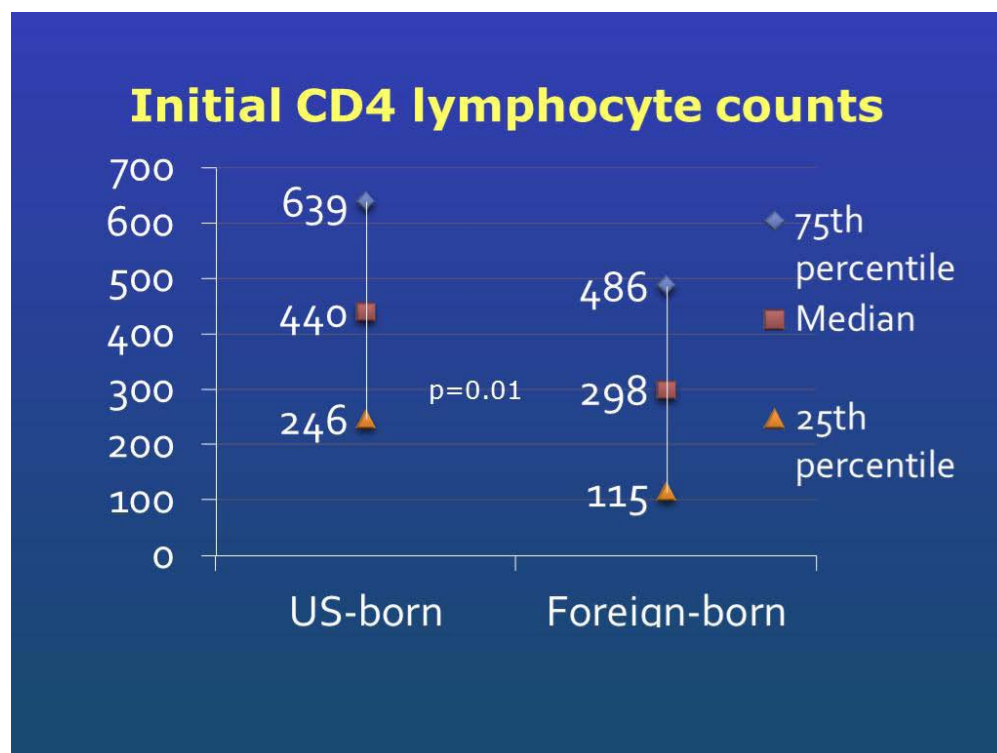


Table 6.5 shows that concurrent diagnosis more common among foreign-born ($p=0.004$) in the study.

Table 6.5 – Concurrent diagnosis with HIV and AIDS among foreign born people

	No AIDS	Concurrent Dx	New AIDS
Total	65%	22%	13%
US Born	68%	19%	13%
Foreign Born	56%	33%	15%

Table 6.6 shows that median time to linkage to care did not differ significantly between US-born and foreign-born individuals (25 versus 31 days), but foreign born persons appear to be slightly more likely to be retained in care and to achieve viral suppression within 18 months after HIV diagnosis.

Table 6.6 – Linkage to care data for foreign born people as compared to US born people

	Total n=616	Foreign-born individuals n=124 (20%)	US-born Individuals n=492(80%)	p-value (FB vs US)
Median initial CD4 lymphocyte level (cells/ul)*	401	297	436	<0.001
Individuals diagnosed with concurrent HIV/AIDS*	137 (23%)	42 (35%)	95 (20%)	<0.001

	Total n=616	Foreign-born individuals n=124 (20%)	US-born Individuals n=492(80%)	p-value (FB vs US)
Median days to linkage to outpatient care	29 (17-71)	25 (14-43)	31 (17-77)	0.005
Individuals linked to care within 180 days	474(77%)	109(88%)	365(74%)	0.001
Individuals with full retention-in-care (no 12 month gaps)	269(44%)	59(48%)	210(43%)	0.33
Individuals with HIV-RNA <400 copies/ml 18 months after HIV diagnosis	216(35%)	52(42%)	164(33%)	0.07

There were several important limitations to this study. Foreign-born individuals not diagnosed at UCH or Denver Health were not included in the study. This was a retrospective study which relies on the accuracy of available records. Reporting of CD4 levels above 500 cells/ul and non-detectable viral loads was not mandated until 2011. Using these laboratory values as a surrogate for HIV visits may lead to an underestimation of engagement in care in individuals who access care outside of the three institutions with full record review.

The authors of the study came to three conclusions. Late diagnosis is the greatest HIV-related disparity that adversely affects foreign-born individuals and communities of foreign born individuals. Foreign-born individuals have higher rates of linkage to outpatient care and equivalent rates of engagement in care. Half of the foreign-born group, 10 percent of total newly-diagnosed were undocumented. This group had more pronounced disparity in initial CD4 levels, with equal engagement in care. The authors cited several additional implications. Earlier diagnosis of HIV may be the most effective means to decrease morbidity and mortality from HIV among foreign born persons with HIV. Prevention and testing efforts should consider this growing segment of the population. Outreach should extend to the growing communities of foreign-born persons. Many people with HIV speak Spanish primarily and outreach efforts should include messages in Spanish. Finally, better understanding of reasons for late testing among foreign born persons is needed.

The study authors cited factors associated with late diagnosis:

- Health care access
- HIV knowledge and perception of risk
- Role of stigma in causing delayed testing
- Missed opportunities for testing -traditional and nontraditional testing sites
- Other cultural factors
- English language proficiency.
- Immigration issues
- Fear of disclosure.

The authors cited some issues that continue to have an unknown impact on foreign born PLWH/A in Colorado. When the US State Department lifted the travel/immigration ban, HIV was no longer prohibitive for immigration/travel to the United States. This had unclear impact on testing and on the influx of HIV-infected individuals. In addition, immigration health issues have been largely omitted from health care reform efforts.

F. Aging people living with HIV or AIDS²²

There has been a steady “graying” of HIV in Colorado. As of the third quarter of 2011, 15 percent of new HIV diagnoses in Colorado were estimated to be in persons over age 50, and 44 percent of people living with HIV in Colorado were thought to be over age 50.

In the 2011 Colorado needs assessment, respondents over age 45 expressed a variety of needs, with ratios of met to unmet needs as shown in **Table 6.6**.

Table 6.6 – Ratio of met to unmet needs from respondents over age 45

Need Description	Ratio of met to unmet need N=456
Visits to doctors, nurses, and other medical providers	(18.1 : 1) 420
Laboratory tests (CD4, viral load, etc.)	(18.2 : 1) 422
Help buying the prescriptions you need	(11.8 : 1) 346
Dental care	(2.5 : 1) 305
Case management	(5.5 : 1) 239
Help getting or paying for health insurance	(3 : 1) 235
Emergency financial assistance (utilities, etc.)	(1.6 : 1) 141
Individual or group counseling for mental health	(3.8 : 1) 134
Groceries or prepared meals	(2.8 : 1) 137
Help getting or staying in housing	(2.3 : 1) 122

As in other states, care givers in Colorado have noted premature or accelerated issues among older PLWH/A, including:

- Cardiovascular diseases
- Diabetes/metabolic syndrome
- Hypertension
- Kidney disease
- Emphysema
- Osteoporosis
- Non-HIV related cancers
- Liver disease
- Dementia

Persons with HIV have higher rates of cardiovascular disease and related risks. The vessels appear approximately 15 years “older” compared to HIV-uninfected. CVD is one of the most common causes of death and one of the most common non-AIDS events and there appears to be much higher risk among HIV-infected persons great than age 65 compared to 50 64 year olds (HR 5.89; 95 percent CI 2.2-16.0).²³ Compared to HIV-uninfected persons, those with HIV had

²² The findings and data in this section come from a presentation by Kristine Erlandson, MD of the University of Colorado Division of Infectious Diseases and Geriatric Medicine

²³ Guaraldi, et al. Clin Infect Dis 2009; 49: 1756-62.

Hasse, et al. Clin Infect Dis 2011; 53: 1130-9.

more hypertension (21.2 vs 15.9 percent), diabetes (11.5 vs 6.6 percent), and lipid abnormalities (23.3 percent vs 17.6 percent). They had 1.75 times greater risk of a heart attack after adjusting for risk factors.²⁴

Table 6.7 shows cardiovascular disease and related risk data among the patients at one of the state's largest infectious disease clinics (University of Colorado Hospital).

Table 6.7 – Cardiovascular and related risk data among PLWH/A at University of Colorado Hospital

Characteristic	N= 359 (%)
Current smoker	123 (34%)
Hypertension	148 (41%)
Diabetes	37 (10%)
Cardiovascular disease	27 (8%)
Stroke	12 (3%)

As they age, persons with HIV have higher rates of kidney disease. Etiology includes HIV itself (improvement with ART), Hepatitis B and C, and ART (atazanavir, indinavir, tenofovir). Data from University of Colorado Hospital indicates advanced kidney disease in 30 percent and subclinical pathology in another 50 percent of ART-experienced persons with HIV/AIDS. Kidney disease appears to be associated with age and female gender. Among UCH clients age 45 to 65 years old on ART, 5 were on hemodialysis (0 transplant), 81/174 (47 percent) had at least trace protein in urine, and 43/354 (12 percent) were diagnosed with stage 3 kidney disease.

As they age, persons with HIV also have higher rates of chronic obstructive pulmonary disease (COPD), independent of smoking, drug abuse, or prior opportunistic infections. COPD among PLWH/A presents at younger ages. In one study, a sample of 167 HIV-infected persons (median age of 46, CD4 count 479) underwent pulmonary function testing. Approximately 65 percent had abnormal test results.²⁵ In a study at University of Colorado Hospital, 8 of PLWH/A were diagnosed with asthma, 5 percent with COPD, and 2 percent were on home oxygen.

Higher rates of osteoporosis and fractures also appear to be higher among aging PLWH/A. Osteoporosis was found to be three times more likely, with fracture risk 30-70 percent higher in HIV-infected persons.²⁶ At University of Colorado Hospital, among those 45-65 years old on ART, 11 percent had a fracture following minimal trauma, 5 percent were diagnosed with osteopenia/osteoporosis, 2.5 percent were on bisphosphonate. In a subset of 80 subjects, 45 exhibited signs or symptoms of osteopenia or osteoporosis.

A growing consensus of HIV caregivers is calling for a broadening of focus to a geriatric model of care. Quoting the American Geriatrics Society, "Health care for older adults focuses on function, which covers the physical, cognitive/mental, psychological, and social aspects of a

ART Cohort. Clin Infect Disease 2010; 50: 1387-96

²⁴ Triant, et al. J Clin Endocrinol Metab 2007; 92: 2506-12

²⁵ Crothers, et al. Chest 2006; 130: 1326-33. Crothers, et al. Am J Resp Crit Care Med 2011; 183: 388-95. Gingo, et al. Am J Resp Crit Care Med 2010; 182: 790-6.

²⁶ McComsey, et al. Clin Infect Dis 2011; 51: 937-46. Womack, et al. PLoS One 2011; 6: 17217. Young, et al. Clin Infect Dis 2011; 52: 1061-8.

person's life". Functional capacity is defined as, "Capability of performing tasks and activities that people find necessary or desirable in their lives." This is dependent on the person and the environment, incorporating such factors as multi-morbidity, polypharmacy, disability/frailty, falls, activities of daily living (cooking, finances, medication administration, etc), cognitive function/depression, incontinence, driving safety, and advance directives.

Multi-morbidity and polypharmacy are common among middle-aged persons aging with HIV. Among those with medical problems at University of Colorado Hospital, the number of morbidities averaged 2.9. Number of medications averaged 4.7 in addition to ART. Less than 1 percent of the University of Colorado cohort were found to be taking only ART. This is particularly significant in that potential for drug-drug interactions and side effects increase with age.

Aging PLWH/A appear to be more susceptible to falls, possibly due to the impact of multi-morbidity and polypharmacy. Falls are costly and associated with increased emergency room visits, placement in skilled nursing facilities, and loss of independence. In the University of Colorado study, 30 percent of their cohort reported more than one fall during prior year (average age 52 years). This is consistent with rates in uninfected persons over 65 years of age.

Best predictors of low functional capacity among aging PLWH/A are:

- Lack of physical activity
- Unemployment
- Recent hospitalizations
- Higher number of comorbidities and medications
- Psychiatric disease
- Chronic pain
- Arthritis
- Poor quality of life

In summary, persons aging with HIV infection may experience an increased rate/early occurrence of many comorbidities. These comorbidities in addition to social factors, lack of physical activity, and other lifestyle factors may lead to earlier than anticipated functional decline and emergence of geriatric syndromes. Care for persons aging with HIV should be multi-faceted, including appropriate management of comorbidities, prevention of functional decline and maintenance of independence (exercise and nutrition), identification of those at risk of functional decline (through questionnaire or provider evaluation), strategies to reduce falls or the risk of falls, enhancement and coordination of community resources, strengthening social networks, and anticipating future need that can preserve independent living as long as possible (e.g., home health, assisted living, and skilled care).

In March 2012, the U.S. Department of Health and Human Services amended *the Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents* to include the following "Key Considerations When Caring for Older HIV-Infected Patients":

- Antiretroviral therapy (ART) is recommended in patients >50 years of age, regardless of CD4 cell count, because the risk of non-AIDS related complications may increase and the immunologic response to ART may be reduced in older HIV-infected patients.

- ART-associated adverse events may occur more frequently in older HIV-infected adults than in younger HIV-infected individuals. Therefore, the bone, kidney, metabolic, cardiovascular, and liver health of older HIV-infected adults should be monitored closely.
- The increased risk of drug-drug interactions between antiretroviral (ARV) drugs and other medications commonly used in older HIV-infected patients should be assessed regularly, especially when starting or switching ART and concomitant medications.
- HIV experts and primary care providers should work together to optimize the medical care of older HIV-infected patients with complex co morbidities.
- Counseling to prevent secondary transmission of HIV remains an important aspect of the care of the older HIV-infected patient.²⁷

G. PLWH/A with a history of incarceration

PLWH/A with a history of incarceration includes both the currently incarcerated as well as those who transitioned out of incarceration. The Colorado needs assessment included 143 of the latter group, and they expressed a variety of needs. The average number of unmet needs among all survey respondents was 1.75 and their average total needs were 7.47. In comparison, respondents with a history of incarceration expressed both more unmet needs (2.7) and more total needs (9.55). Specific needs, and ratios of met to unmet needs, are shown in **Table 6.8**. More than half of those who reported being incarcerated since HIV diagnosis reported needing transportation assistance, compared to less than 30 percent of all survey respondents.

Table 6.8 – Ratio of met to unmet needs from respondents with a history of incarceration

Description of Need	Ratio of met to unmet need N=143
Visits to doctors, nurses, and other medical providers	(15.5 : 1) 132
Laboratory tests (CD4, viral load, etc.)	(18.1 : 1) 134
Help buying the prescriptions you need	(7.8 : 1) 114
Dental care	(1.5 : 1) 107
Case management	(3.9 : 1) 89
Help getting or paying for health insurance	(2.1 : 1) 88
Emergency financial assistance (utilities, etc.)	(1.5 : 1) 77
Individual or group counseling for mental health	(4.5 : 1) 71
Groceries or prepared meals	(2.4 : 1) 68
Help getting or staying in housing	(2.1 : 1) 68
Transportation to and from medical or other services	(2 : 1) 73

In Colorado, all people are tested for HIV upon admission to state prison, and the costs of HIV care are born by the state Department of Corrections while they are incarcerated. The situation is more problematic for inmates of city and county jails. Under state law, these jails are required to

²⁷ <http://aidsinfo.nih.gov/guidelines/html/1/adult-and-adolescent-treatment-guidelines/277/hiv-and-the-older-patient>

provide HIV care, but they are not required to cover the costs of HIV care. They are permitted to bill inmates for the costs of care and to collect such costs after release. It is unknown how many jail inmates choose to forego care due to financial concerns.

Smedley, Stith, and Nelson provided a conceptual framework for understanding the health care experiences of people recently released from jail who are living with HIV/ AIDS.²⁸ According to their conceptualization, the issue of access to health care reflects an interaction of patient-level characteristics and institutional-level characteristics of the health care system. The research literature suggests significant variations in how different groups of patients experience and report illness, as well as in their help-seeking behavior. 14–15 Patients’ beliefs, values, and previous experiences with health care services, as well as demographic factors, influence the level and type of care they seek and receive. Castro discusses the central role played by individual level characteristics such as the age, race, and gender of the patient, as well as the patient’s kinship patterns, social support networks, and cultural patterns in responding to health care problems and disease.¹⁵ These variables, in turn, interact with how the delivery system is organized, and the ease with which services are accessed and utilized. Reimbursement policies and procedures, coordination of sectors of the service delivery system, attitudes among providers towards patients, and referral and access patterns to specialized care, all affect receipt of health care by patients. The research literature indicates that the level of involvement in medical decisions, type of treatment, and level of satisfaction with the care received varies with the minority status, economic status, and gender of patients. Similarly, those with stigmatized attributes (such as ex-offender status, substance abuser status, or HIV-positive status) differ from their non-stigmatized counterparts in their experiences with providers in the health care system, as well as in their treatment.²⁹

The community reentry process presents a singular opportunity for advancing the health of recently incarcerated people who are HIV-positive. The moment of release from jail and the hours and days that follow are pivotal in facilitating the released inmates’ access to primary health care for HIV/AIDS and adherence to an appropriate medication regimen. One study found that a pattern of limited interaction and coordination between the correctional system and community-based providers of health care leaves inmates to confront parallel and unconnected systems of care, and as a consequence, feeling overwhelmed by the myriad of agencies in the local community.³⁰ This discontinuity between the correctional facility and the local service systems functions can be an impediment to establishing a relationship between the former inmate and HIV/AIDS-related health care providers. Following their release from jail, many participating former inmates experienced a time lapse or, in many cases, a cessation of visits to a doctor and adherence to HIV/AIDS medication regimens. Community based assistance in the process of transitioning from the correctional facility to the community is critical and must be comprehensive.

²⁸ Smedley BD, Stith AY, Nelson AR, et al., eds. Institute of Medicine, Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care. Unequal treatment: confronting racial and ethnic disparities in healthcare. Washington, DC: The National Academies Press, 2003.

²⁹ Fontana, L. and Beckerman, A. Recently Released with HIV/AIDS: Primary Care Treatment Needs and Experiences. *Journal of Health Care for the Poor and Underserved* 18 (2007): 699–714

³⁰ Ibid.

The anomie and confusion experienced by the men and women at the time of their reentry to the community is often exacerbated by a number of correctional policies and practices.³¹ It was not uncommon for inmates to be released at times (such as the middle of the night) when community services are closed. In addition, inmates may be released without information about HIV-related resources in the community. If people are discharged with a minimal supply of medication, there is increased risk of lapses in their ability to transition to long term access, such as through the AIDS Drug Assistance Program. The process of obtaining health care and prescription insurance coverage can be further aggravated by the practice of releasing men and women from jail without documentation of their identity, their HIV status, and their HIV/AIDS medication needs, which are often required when former inmates seek services from health care providers and applied for other forms of assistance.

In addition to addressing these system and provider issues, any effort to intervene and promote HIV/AIDS-related health care among former inmates must consider individual-level characteristics that bear on access, retention, and adherence to care. The label of *ex-offender* and the narrow educational backgrounds of former inmates limit post-release economic prospects. In addition, the Fontana study found that many of the former inmates returned to the community with co-occurring problems related to housing and substance abuse. Almost one third of those interviewed reported that they had needed some form of substance abuse treatment following their release from jail. One fifth of those interviewed were homeless at the time of the interview, and another 46 percent were in transitional housing. Most study participants also reported needing assistance with obtaining housing, food or clothing following their release.³²

H. African Americans

As mentioned in the first chapter of this SCSN, among race/ethnic groups, African Americans are the most disproportionately overrepresented group at 17 percent of HIV infections diagnosed between 2006 and 2010 (over four times their proportion of the population), and African American females accounted for 44 percent of all female cases (11 times their proportion of the population). Among race/ethnic groups, whites and African Americans had similar percentages of concurrent diagnoses with HIV and AIDS (32 and 34 percent respectively) and African Americans were somewhat more likely to be considered out of care as compared to other racial and ethnic groups.

The 2011 Colorado needs assessment included 70 responses from African Americans. The average number of unmet needs among all survey respondents was 1.75 and their average total needs were 7.47. In comparison, African American respondents expressed more unmet needs (2.22) and more total needs (7.96). Specific needs, and ratios of met to unmet needs, are shown in **Table 6.9**.

Table 6.9 – Ratio of met to unmet needs from African American respondents

	Ratio of met to unmet need
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³¹ Op. cit

³² Fontana, L. and Beckerman, A. Recently Released with HIV/AIDS: Primary Care Treatment Needs and Experiences. *Journal of Health Care for the Poor and Underserved* 18 (2007): 699–714

	N=70
Visits to doctors, nurses, and other medical providers	(13.8 : 1) 59
Laboratory tests (CD4, viral load, etc.)	(11 : 1) 60
Help buying the prescriptions you need	(7.2 : 1) 49
Dental care	(1.9 : 1) 40
Case management	(4 : 1) 35
Help getting or paying for health insurance	(3.9 : 1) 39
Emergency financial assistance (utilities, etc.)	(1.3 : 1) 25
Groceries or prepared meals	(2.5 : 1) 28
Help getting or staying in housing	(2 : 1) 30
Transportation to and from medical or other services	(1.9 : 1) 35

In describing the factors that cause less successful outcomes for African Americans with HIV, researcher Robert Fullilove noted five key factors:³³

- 1) Diagnosis at advanced disease stages
- 2) Social and environmental factors that diminish treatment success (such as poverty, unstable living conditions, substance use, and mental health issues)
- 3) Competing financial needs
- 4) Distrust of the medical establishment
- 5) Inadequate services for injection drug users
- 6) A “patchwork” approach to health care services coupled with less likelihood of having health insurance

³³ Fullilove, R. (2005). African Americans, Health Disparities and HIV/AIDS: Recommendations for Confronting the Epidemic in Black America. Washington, DC: National Minority AIDS Council.

Chapter 7 – Shortfalls in the Healthcare Workforce

Health care reform is projected to place new demands on Colorado's health care system. The capacity of the state's health care system to respond to these new demands is very much in doubt, and the impact will disproportionately affect PLWH/A.

The Health Care System in Colorado

Colorado has multiple sources of primary care workforce provider and consumer data that inform different programs, designations, and paint the picture of access and coverage across the state. The Colorado Department of Labor and Employment (CDLE) employs extensive data collection techniques to document how many providers are licensed in the state and who they serve. Their data is sortable by: County, Metropolitan Area, State, Workforce Region, Occupation, Industry, and Educational Program

Not all of the geographically-based sorting mechanisms yield results and some parts of Colorado appear to have more consistently gathered data than others. The occupation/industry search tools return information about salary, current workforce in 2009, projected workforce in 2019, education requirements, tasks typical of the specific professions and standard workplace conditions. It is of note that the projections for workforce in 2019 are basic projections based on the continuation of the status quo and do not take into account factors critical to primary care workforce discussions, such as aging population, aging workforce, primary care/specialty selection trends and projects, and potential shortage designation changes. CDLE projects that a broad majority of professions identified as being primary care deficient will experience extreme shortages over the next ten years (**Table 7.1**).

Table 7.1 – 2009 employment and projected future employment for health professionals, from the Colorado Department of Labor and Employment

Profession	Employed in 2009	Projected Employed in 2019	Average Annual Change in Employment	Total % Change from 2009-2019	Increased Demand from 2006-2016	% of Projected Shortage
Physician Assistants	1,459	1,893	2.6%	29.7%	33.7%	7.7%
OB/GYN	643	772	1.8%	20.1%	23.6%	5.6%
Family Physicians	2,276	2,536	1.1%	11.4%	15.3%	4.3%
General Pediatricians	214	351	1.1%	11.8%	14.5%	3.5%
General Internists	240	268	1.1%	11.7%	14.4%	3.4%
Nurse Practitioners	719	839	1.1%		unavailable	unknown
All other Physicians and Surgeons	3,565	4,231	1.7%	18.7%	22.0%	5.0%
Registered Nurses	43,361	55,416	2.5%	27.8%	36.2%	11.2%
Certified Nurse Midwives	414	473	1.3%	unavailable		unknown
Dental Hygienists	3,397	4,316	2.4%	27.1%	31.0%	7.0%
Dentists, General	2,643	2,821	0.7%	6.7%	9.8%	2.8%
Mental Health and Substance Abuse Social Workers	2,850	3,647	2.5%	28.0%	40.5%	15.5%

Profession	Employed in 2009	Projected Employed in 2019	Average Annual Change in Employment	Total % Change from 2009-2019	Increased Demand from 2006-2016	% of Projected Shortage
Substance Abuse and Behavioral Disorder Counselors	1,160	1,535	2.8%	32.3%	39.4%	11.4%
Mental Health Counselors	3,179	3,994	2.3%	25.6%	35.9%	12.9%
Medical and Public Health Social Workers	2,727	3,297	1.9%	20.9%	35.3%	16.3%
Child/Family/School Social Workers	5,358	6,113	1.3%	14.1%	28.0%	15.0%
Rehabilitation Counselors	1,615	1,818	1.2%	12.6%	25.2%	13.2%
Psychiatrists	324	380	1.6%	17.3%	23.4%	7.4%
Clinical/Counseling/School Psychologists	3,705	4,173	1.2%	12.6%	23.0%	11.0%
All Other Psychologists	244	271	1.1%	11.1%	18.0%	7.0%
All Other Social Workers	1,308	1,534	1.6%	17.3%	32.4%	16.4%
Home Health Aides	unknown				56.0%	unknown
Respiratory Therapists	1,706	2,185	2.5%	28.1%	37.2%	12.2%
Pharmacists	4,364	5,524	2.4%	26.6%	33.5%	9.5%
Physical Therapists	3,677	4,684	2.5%	27.4%	33.4%	8.4%

Source: Colorado State Health Workforce Development Strategy, CDPHE Primary Care Office

Of particular concern are the shortages projected for Colorado's primary care and professional nursing workforce. Based on current practice models, assumption, and the best data available, the Colorado Health Institute has analyzed supply and demand for primary healthcare professionals and projects that, by 2025, Colorado will need an additional 2,200 primary care providers beyond the anticipated supply. This shortage of primary care providers includes more than 1,000 physicians, 480 physician assistants, and 660 advance practice nurses practicing in primary care. This could have a negative effect on thousands of Coloradans' ability to access primary care services, resulting in longer waits, less provider choice, and a number of other access restrictions.

Colorado's current registered nurse shortage of 11 percent is predicted to triple by 2020. While the number of professional nurses declines, job opportunities are expected to increase by 46 percent through 2018. Projections from the Colorado Center for Nursing Excellence suggest that, by 2018, Colorado will need an additional 6,300 registered nurses.

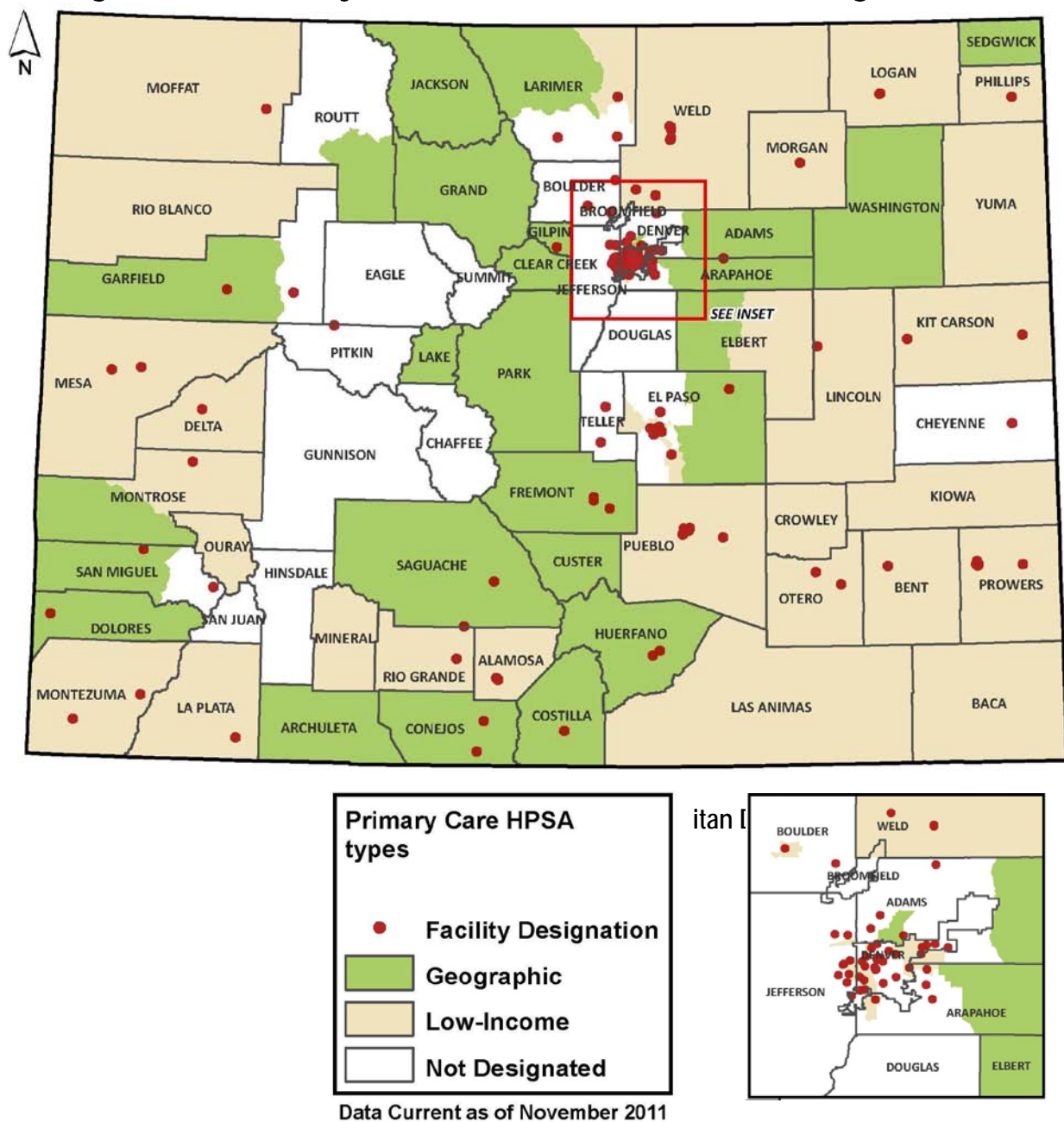
While the number of dental providers in the western region of the United States is expected to continue to grow, the composition and distribution of dental providers will continue to pose challenges for Colorado. Currently, 9 of the state's 64 counties have no dentist, and an estimated 12 counties have no dental hygienists.

Colorado also faces a serious gap in the supply of behavioral health providers. According to 2010 data, there were 582 psychiatrists, 1,633 psychologists, and 3,488 licensed clinical social workers in Colorado, which is equal to approximately 12 psychiatrists, 33 psychologists, and 70

social workers per 100,000 people. While these data generally reveal behavioral workforce shortages in Colorado, the disparity is even more pronounced outside the Front Range.³⁴

According to the Primary Care Office at Colorado Department of Public Health and Environment, most of the state meets federal criteria to be designated a primary care health professional shortage area, as shown in **Figure 7.1**.

Figure 7.1 - Primary Care Health Professional Shortage Areas³⁵



³⁴ Colorado Health Professions Workforce Policy Collaborative. (2011). Addressing Colorado's Primary Care Provider Shortage.

³⁵ Colorado Department of Public Health and Environment, Primary Care Office

General Readiness of Colorado for Health Care Reform

The Colorado Health Institute (CHI) estimates that 510,000 Coloradans will become insured between 2014 and 2016 as the result of federal health care reform. Approximately 130,000 of the newly insured will be covered by Medicaid, with the remaining 380,000 obtaining private health insurance with through their employer, a pooled insurance exchange, or the individual market. CHI further estimates that these 510,000 people will make an estimated 256,010 to 432,420 additional annual visits to primary care providers, above and beyond any yearly visits they made when they were uninsured. Based on that expected change in medical usage, Colorado will need between 83 and 141 additional primary care providers by 2016. This breaks down to a need for 71 to 117 physicians and 12 to 24 nurse practitioners and physician assistants. Although 25 percent of the newly insured will be covered by Medicaid, they will account for 36 percent of the anticipated need for additional medical care.

Readiness of PLWH/A in Colorado for Health Care Reform

Clearly, Colorado overall faces many challenges meeting demand for health services in the future, particularly after health care reform has been implemented. The issues for PLWH/A are compounded, because the need for health care is more continuous, including both primary care and specialty care.

To assess the readiness of PWH/A themselves to face the choices posed by health care reform, the needs assessment included survey questions about the steps respondents would likely take in the face of future changes to the health care system in Colorado. One question asked if respondents would sign up for Medicaid if rules changed and they were eligible. Another asked if they would sign up for private health insurance if they became eligible. Two follow-up questions asked how much they would be willing to pay for monthly premiums and annual out-of-pocket expenses for office visits, copayments, etc. Denver survey respondents were more likely to say they would be willing to sign up for Medicaid or for private health insurance than non-Denver respondents. A higher proportion of non-Denver respondents said that these questions were not applicable. This is not unexpected based on the higher proportion of non-Denver survey respondents who reported already accessing these services (**Table 7.1**). The median amount that respondents from both Denver and out of Denver said they would pay for insurance premiums was \$50 a month, and the median out-of-pocket expense they were willing to pay was \$200 a year.

Table 7.2 - Survey respondent willingness to sign up for Medicaid or private health insurance if the requirements were to change

	Denver		Non Denver		All	
	N	%	N	%	N	%
Would you sign up for Medicaid?						
Yes	339	57	127	48	466	54
No	80	13	47	18	127	15
Not Applicable	107	18	60	22	167	19
No Response	69	12	33	12	102	12

Would you sign up for private insurance?						
Yes	272	46	100	37	372	43
No	197	33	58	22	255	30
Not Applicable	67	11	76	28	143	17
No Response	59	10	33	12	92	11
What amount would you be willing to pay for a monthly premium?						
	N=224		N=83		N=307	
Median	\$50		\$50		\$50	
Mean	\$92		\$108		\$97	
What amount would you be willing to pay for annual out-of-pocket?						
	N=181		N=63		N=244	
Median	\$200		\$200		\$200	
Mean	\$541		\$706		\$583	

A total of 188 respondents offered explanations for their “yes” or “no” responses to the question about Medicaid. Forty-five percent of those answering that they would sign up for Medicaid said they would do so because they needed the help or to help with the costs of care. Twenty percent said it was so they could access care and treatment, and another 25 percent said they would sign up in order to access better care. Of those responding “no” to the Medicaid question, 31 percent said they did not think they would qualify, including four percent who reported being undocumented. Seventeen percent were receiving Medicare and another twelve percent had private insurance and therefore did not think they would need Medicaid. Ten percent said they did not need it, and six percent said that applying for Medicaid was too complicated. Almost half (48 percent) of the 121 people saying that they would sign up for private insurance, said they would do so only if it was affordable. Another 27 percent said they would do so because they needed the coverage, and 14 percent said they would in order to get better coverage. Of 155 people reporting that they would not sign up for private insurance, 78 percent said that they could not afford it. Another 15 percent said that they already had Medicare, Medicaid, or some other type of coverage and would not need it.

Table 28 shows that there were some significant differences in the demographics of people who said they would sign up for Medicaid and private insurance. Survey respondents with income less than \$8,000 (including those with no reported income) were more likely to say that they would sign up for Medicaid and private insurance than those reporting income above \$8,000. Survey respondents who were foreign born were more likely to say that they would sign up for Medicaid, but less likely to sign up for private insurance than those born in the U.S.

Table 7.2 - Demographic groups more or less willing to sign up for Medicaid or private health insurance

MEDICAID	Yes	%	No	%	Not Applicable	%	No Response	%	Total
Income \$8,000 or less	164	35	17	14	54	33	31	31	266
More than \$8,000	298	65	108	86	110	67	68	69	584
Total	462		125		164		99		850

MEDICAID	Yes	%	No	%	Not Applicable	%	No Response	%	Total
Foreign Born-Yes	67	15	15	12	7	4	15	15	104
Foreign Born- No	395	85	111	88	154	96	85	85	745
Total	462		126		161		100		849
Diagnosis of AIDS	210	46	62	49	96	60	43	48	411
No AIDS Diagnosis	249	54	64	51	65	40	47	52	425
Total	459		126		161		90		836
PRIVATE INSURANCE	Yes	%	No	%	Not Applicable	%	No Response	%	Total
Income \$8,000 or less	135	37	73	29	26	18	32	37	266
More than \$8,000	234	63	178	71	117	82	55	63	584
Total	369		251		143		87		850
Foreign Born-Yes	39	11	43	17	12	9	10	11	104
Foreign Born- No	328	89	209	83	128	91	80	89	745
Total	367		252		140		90		849
Diagnosis of AIDS	166	46	142	57	62	44	41	50	411
No AIDS Diagnosis	197	54	109	43	78	56	41	50	425
Total	363		251		140		82		836

An open-ended question on the survey asked respondents what they would likely need to make sure they got the most benefit from changes in health care in Colorado had 659 responses (**Table 7.3**). Over half of the respondents (52 percent) stressed that they needed an assurance of continued, uninterrupted access to HIV care and treatment including doctor visits, medications, and laboratory testing. For many this meant access to affordable insurance coverage and affordable care and treatment. Many commented on how they were pleased with the coverage, care, and treatment that they currently received, and they wanted to continue receiving them. This included: being able to see the same doctor; continuing to receive ADAP and Bridging the Gap Colorado benefits, continuing to receive Medicaid or Medicare benefits, and no cutbacks in service. Others mentioned that they would need free care and treatment or assistance in paying for insurance premiums, deductibles, and co pays. Still others said that they would need a system that was easy to navigate, with streamlined paperwork required for enrollment, and few restrictions on qualifying for services.

Another 10 percent reported needing improved access to care and treatment. For some this meant full coverage health insurance that would include: care and treatment for HIV and non-HIV related health conditions including dental care and mental health care and treatment, coverage for family members, coverage when traveling outside of one's county or state, and no restrictions for pre-existing conditions. Others mentioned that they needed more doctor and clinic choices, better quality doctors, and more frequent and easier access to medical appointments. This was especially the case for those living outside of Denver who also noted the need for more local clinics that could deal with HIV patients. Other suggestions for improvements to care and treatment included: simplified enrollment procedures; fewer income restrictions on benefits

allowing people to work; quality care that was not based on income; universal health care; ability to access medications in greater than thirty day supplies; and more ASO locations.

Twenty-two percent of those responding to the question about needs in the face of changes to health care stressed that they would need good information. Most often they reported needing information about the nature of the changes, what the changes imply for their health care, and what they need to do in the face of such changes to ensure their access to care and treatment. Some said they needed to understand what programs and benefits were available to them, have their options explained, and understand which would be most appropriate for their situations so that they could make informed choices. People also wanted information on what they needed to do to gain and maintain access to those programs and benefits. This would include understanding enrollment processes and program requirements. Respondents stressed needing information that was understandable, detailed, and up to date and suggested that it could be delivered through providers, interpreters, the mail, the Internet, and television. Some mentioned needing contact information, and others said they needed to understand both their rights and responsibilities in accessing health care. Another four percent of the respondents stressed that they would need help understanding the health care system and any changes to it as well as assistance in enrolling in programs. Case managers or some other type of informed provider or counselor could provide such assistance.

An additional ten percent of the respondents said that they would not only need access to HIV care and treatment, but access to basic needs as well. These included: income in the form of well-paying jobs, disability benefits, or financial assistance; stable housing and utilities; food stamps or access to food banks; and transportation in the form of bus passes or gas vouchers. Six percent said that they did not know what they would need in the face of changes to the health care system with many saying they would first need to know what those changes would entail.

Table 7.3 - Survey respondents expressed needs in the face of potential future changes to health care in Colorado

Need	Number (N=659)	Percent
Continued access to HIV care and treatment	344	52%
Information	142	22%
Access to basic needs	64	10%
Improved care and treatment	64	10%
Don't know	41	6%
Case management/guidance	26	4%

Chapter 8 – Cross Cutting Issues and Goals

The following are identified as cross cutting issues and goals. They are not presented in priority order.

- Identify people who living with HIV and link them into care.
- Bring into care those who know their status but are not receiving primary care or treatment.
- Increase the proportion of people living with HIV or AIDS that become eligible for Medicare, Medicaid, or private health insurance.
- Improve retention in medical care and adherence to medication regimens.
- Screen more clients for mental health and substance use issues and provide or actively link clients to appropriate, client-centered behavioral health services.
- Improve access to support services for people living with HIV or AIDS.
- Assist and support people living with HIV or AIDS to enhance quality of life.
- Address HIV stigma through enhanced peer-based services and outreach.
- Promote quality improvement.
- Promote cultural competence among service providers.
- Address disparities in HIV care (including access to medications) through outreach and education.
- Increase access to affordable oral health care and integrate it with HIV primary care.
- Rethink housing resources for PLWH/A, including transition to self-sufficiency
- Prepare for the impact of health care reform and ease the transition of clients to alternative sources of third-party payment as they become available

Chapter 9 – The SCSN Development Process

The Colorado SCSN was developed with input from: 1) representatives of all Ryan White HIV/AIDS Programs funded in the state, including staff of the AIDS Education and Training Centers, the Dental Reimbursement Program and Special Projects of National Significance Demonstration Grants. It also benefitted from involvement of people living with HIV/AIDS as well as the agencies that provide services for them, funded by both Part A and Part B. The process also included active participation of representatives of federally qualified health centers and the state's largest managed care organizations. A complete list of participants is included in **Table 9.1**.

Table 9.1 – SCSN Participants

Name	Affiliation/Representation
Ana Hopperstad	Boulder County AIDS Project (Part B subgrantee)
Anne Marlow-Geter	CDPHE (Planning Unit Supervisor)
Bob Bongiovanni	CDPHE (Care and Treatment Manager)
Celeste LeBlanc	Boulder County AIDS Project (Part B subgrantee)
Don Pults	Community Activist and Part A Planning Council Member
Ernest Duff	Howard Dental Center (Part A subgrantee)
Guy Lively	Beacon Clinic (Part C representative and Part B subgrantee)
Jeff Basinger	Colorado Health Network, North Office (Part B subgrantee)
Jennifer Chase	Colorado Health Network, North Office (Part B subgrantee)
Jessica Forsyth	Children's Hospital (Part C representative, Part B subgrantee, and Part A Planning Council Member)
John Reid	Metro Community Provider Network (FQHC)
Joshua Blum	Denver Primary Care Clinic (Part C representative)
Julie Drake	Pueblo Community Health Center (Part C representative and Part B subgrantee)
Julie Lebaron	St. Mary's Medical Center (Part C representative and Part B subgrantee)
Karen Reed-Gallegos	CDPHE (Care and Treatment Program)
Lisa Lawrence	AIDS Education and Training Center
Maria Jackson	CDPHE (Care and Treatment Program)
Maria Lopez	Denver TGA Planning Council Manager
Martha Monroe	Colorado Health Network, West Office (Part B subgrantee)
Mary Beth Luedtke	Colorado Health Network, West Office (Part B subgrantee)
Matt Bennett	Denver TGA Planning Council contractor
MeriLou Johnson	AIDS Education and Training Center and Dental Partnership
Peter Ralin	Community Activist
Ralph Wilmoth	CDPHE (STI/HIV Section Chief)
Richard Blair	Colorado Health Network, South Office (Part B subgrantee)
Richard Weinert	CDPHE (Planning Unit)
Robin Valdez	Denver Part A grantee representative
Ruth Pederson	Colorado Health Network, Central Office (Part A and Part B

Name	Affiliation/Representation
	subgrantee)
Sandra Dunlap	Colorado Health Network, South Office (Part B subgrantee)
Susan Luerssen	CDPHE (Research and Evaluation Unit)
Teresa Martinez	CDPHE (Care and Treatment Program)

The development process began with a formal request sent to each of the Ryan White grantees in Colorado, explaining the SCSN development process and including text from the prior SCSN document that required updating. The next step was a statewide open meeting, widely publicized by email and flyers, held on March 29, 2012. At this meeting, the SCSN development process was explained, along with a draft of the updated SCSN, consistent with federal guidelines. The meeting also included a presentation of the 2011 Needs Assessment Report and a discussion of the findings.

Following the March 29 meeting, CDPHE staff continued compiling data and developing drafts of the SCSN. The other grantees (Parts A, C, D, and F) continued contributing updated text. A new draft was emailed in April to all those who participated on March 29 and additional people who requested involvement. A second open meeting took place on May 2. At this meeting, the latest SCSN draft was reviewed in detail. By the end of the meeting, participants voiced overall support for the document. A proposed final draft was emailed on June 1, with a request for email approval from each of the funded Ryan White grantees.