

EL PASO COUNTY DEPARTMENT OF HEALTH AND ENVIRONMENT  
301 South Union Boulevard.  
Colorado Springs, Colorado 80910

ANNUAL REPORT  
Sexually Transmitted Diseases/HIV Programs  
January 1, 1996 - December 31, 1996

*This Report is dedicated to John Muth (Medical Director, 1980-1997) whose unflagging support for the application of time-honored public health measures in the control and prevention of sexually and blood-borne transmissible infections nurtured the successes herein recorded.*

"Great spirits have always encountered  
violent opposition from mediocre minds."

Einstein

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## INTRODUCTION

This Report is a compendium of boring sequences of numbers and percentages; these will induce sleep in even the most motivated reader (FDA approval for its use as a safe and effective soporific is forthcoming). It is intended as a comprehensive repository of program data and trends spanning more than two decades, not simply as a summary of 1996 accomplishments (and, alas, shortcomings). It should be used as a rear view mirror: to know where you're going, you need to know where you've been. (We are well aware, however, of how dull history can be.)

Demand for these data spring from interested citizens (occasionally), community agencies (sporadically), researchers (see Appendix A), and the media (often; Appendix B). This Report should be especially useful for our new medical director: twenty minutes spent scanning its contents and focusing on items of especial interest will provide a comprehensive historical overview to assist in decision-making. To this end, we have attached two appendices: the first consists of a bibliography of articles published in the medical and social sciences literature stemming from our work in STD/HIV epidemiology and control, while the second consists of a list of articles about our Program that have appeared in the press, locally and nationally (at least those of the latter that someone informed us of!).

Although our gifted and dedicated staff is responsible for our long list of successes (and failures, since we've made two - or was it three? - mistakes in our time) much credit goes to John Muth who facilitated our challenging tasks by creating and maintaining the environment for success. He is the giant upon whose shoulders we have stood (that's why he is stoop-shouldered. Now you know). There are a bunch of tall oaks in public health, but damn few sequoias like John.

We love you and wish you the goodest, John. THANK YOU AND GODSPEED.

PART I

Chlamydia control

Nineteen-Ninety-Six was a turning point in the control of chlamydia for two reasons: 1) implementation of a clearly superior diagnostic test and 2) intensification of contact tracing to reduce incidence. Both events started mid-year.

A Brief History

Formal chlamydia control began in the mid-1980s, with the availability of affordable antigen tests; these tests were used on a pilot basis starting in mid-1987. During 1988, we inaugurated formal contact tracing efforts - an initiative that permitted publication, in the American Journal of Public Health, of the first epidemiologic paper contrasting chlamydia with its fraternal twin, gonorrhea. (This was an amazing public health accomplishment because it was done while we were unbelievably busy dealing with the coeval AIDS "hysteria" AND starting the time-consuming social networks study, CDC Project 90.)

Although contact tracing efforts continued for the eight years following 1 Jan 1988, these were unsatisfying because of insufficient staff; insensitive tests (they were, in fact, lousy); and undefined periods of infectiousness. By the mid-1990s, we were able to increase contact tracing staff (mid-1995) AND a new generation of tests, based on polymerase chain reaction (PCR) technology, became available and, above all, affordable.

Starting 1 July 1996, we implemented PCR testing in all health department clinics testing for chlamydia, offered the test to military installations (to test partners of diagnosed cases only), and to interested providers, such as Community Health Center. As a consequence of improved diagnostic accuracy and enhanced contact tracing, our chlamydia morbidity, which declined during 1995 for the first time since instituting control efforts in 1988, remained stable during 1996. Had we not implemented the described changes, we estimate that 1996 morbidity would have "declined" by about 10%. The Table below supports this idea: the medical venues registering increases (or failing to show declines) are precisely those where PCR testing was implemented in mid-1996. The venues registering declines - private providers and Planned Parenthood - are not only places where use of the PCR is erratic, but are also the sites that tend to detect prevalent (as opposed to incident) cases. Based on these data, we feel that prevalence is declining and therefore also incidence, but that this latter is being masked by the artifact of superior tests in venues where incident cases tend to present: public, quasi-public, and military clinics (If correct in our interpretation, 1997 should record discernible incidence declines in these clinics).

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1996 Laboratory reported chlamydia cases (vs 1995 & 1994)  
(All Report Sources)

	<u>Men</u>	<u>Women</u>	<u>1996</u> <u>Total (%)</u>	<u>1995</u> <u>Total (%)</u>	<u>1994</u> <u>Total (%)</u>
Private providers	41	197	238 (19.8)	332 (27.1)	369 (21.9)
STD Clinic	223	162	385 (32.0)	313 (25.6)	487 (28.9)
FPC/PNC/CHC*		219	219 (18.2)	177 (14.5)	201 (11.9)
Planned Parenthood		40	40 ( 3.3)	52 ( 4.3)	82 ( 4.9)
Ft. Carson	120	156	276 (22.9)	284 (23.2)	481 (28.5)
Air Force	8	38	46 ( 3.8)	60 ( 4.9)	67 ( 4.0)
<hr/>					
Total	392	812	1204 (100)	1223 (100)	1687 (100)

\*Family Planning, Prenatal, Community Health Center, clinics

Because the public and military clinics test (and screen) for chlamydia consistently, observation of secular trends from these sectors probably provides reliable sentinel information. (Obligatory reporting of chlamydia infection in Colorado began in the late Fall of 1991 and thus the first full year of reporting is 1992.) The important sentinel indicator in the Table below is the column on the right: reported cases during 1996 are at about half the levels observed five years earlier.

Chlamydia cases by selected report source and gender  
1988-1996  
(Excludes private sector cases)

	<u>H.D. Clinics</u>		<u>Fort Carson</u>		<u>Air Force</u>		<u>Total</u>
	<u>Men</u>	<u>Women</u>	<u>Men</u>	<u>Women</u>	<u>Men</u>	<u>Women</u>	
1988	243	268	250	197	84	150	1192
1989	144	217	289	263	Unknown		N/A8
1990	195	443	213	222	151(both)		1224
1991	253	436	288	256	118(both)		1351
1992	185	327	277	289	45	63	1186
1993	264	299	212	239	32	38	1084
1994	264	332	226	255	20	47	1144
1995	163	150	114	170	13	47	657
1996	223	162	120	156	8	38	707

The one deep disappointment of 1996 is the positivity rate observed in Prenatal Clinic: we've returned, temporarily we trust,

to the barbaric levels of the late 1980s (rates that were measured with lousy tests! We suspect that had PCR technology been available then, the rates would have approached twenty percent). Our feeling is that, in 1996, chlamydia moved in rapid, epidemic form in the sexual networks of clients like those we serve in our Prenatal setting: very young unmarried women of low socio-economic attainment. (These are networks where their male partners are likelier "to fool around" while their lady is pregnant, since they are not formally attached to the women and since the ladies may be less interested in sex while inconvenienced by pregnancy. Is there any way to say these things more delicately?) We know that use of PCR testing is not responsible for the greatly increased morbidity among Prenatal Clinic women, since the positivity rate was similar for each 6 months period in 1996: during the first six months, using old technology, the positivity rate was 11% while during the second six months (PCR testing), the rate was 9%. Allowing for enhanced sensitivity expected during the second half of 1996, we see that most of the problem occurred during the first half, when the true positivity was probably closer to 20% and the positivity rate during the second half, had we continued using the old tests, would have been about 6%.

#### Chlamydia screening in Women's Clinics

1988-1996

<u>Year</u>	<u>Family Planning</u>		<u>Prenatal/CNM</u>	
	Tests	Pos.(%)	Tests	Pos.(%)
1988	772	61 ( 7.9)	573	75 (13.1)
1989*	259*	30 (11.6)	410	30 ( 7.3)
1990	1379	121 ( 8.8)	471	50 (10.6)
1991	1559	114 ( 7.3)	537	39 ( 7.3)
1992	1701	65 ( 3.8)	586	45 ( 7.8)
1993	1812	70 ( 3.9)	531	31 ( 5.8)
1994	2058	66 ( 3.2)	512	41 ( 8.0)
1995	1789	44 ( 2.5)	420	12 ( 2.9)
1996	1946	68 ( 3.5)	508	51 (10.0) !!!!

\* Only high-risk clients were tested in 1989

#### Chlamydia cases in VD Clinic

Based on data obtained from Fort Carson, where duplicate testing (PCR and old technology) was done during the last six months of 1996 (on men and women who were partners of diagnosed cases), the PCR improved case detection by one third on women contacts (from 18% to 24% positive) and by a factor of 1.7 on men contacts (from 10.3% to 27.6%). In different words, test sensitivity improved from 60% to 80% on samples from women and from 35% to 94% from men (Caveat: all samples were urine samples, not genital swabs).

The following Table records the impact of both superior testing technology and enhanced contact tracing efforts during 1996 compared to 1995.

Chlamydia cases in VD Clinic  
(1988-1996)

	<u>1988</u>		<u>1989</u>		<u>1990</u>	
	<u>Tests</u>	<u>Pos (%)</u>	<u>Tests</u>	<u>Pos (%)</u>	<u>Tests</u>	<u>Pos (%)</u>
Men	921	230 (25)	1309	125 (9.5)	1574	163 (10.4)
Women	812	175 (21.6)	1393	151 (10.8)	1707	195 (11.4)
Total	1733	405 (23.4)	2702	276 (10.2)	3281	358 (10.9)

CONTINUED...

	<u>1991</u>		<u>1992</u>		<u>1993</u>	
	<u>Tests</u>	<u>Pos (%)</u>	<u>Tests</u>	<u>Pos (%)</u>	<u>Tests</u>	<u>Pos (%)</u>
Men	1852	259 (14)	1924	185 (9.6)	1730	248 (14.3)
Women	2155	275 (12.8)	2210	216 (9.8)	2044	203 (9.9%)
Total	4007	534 (13.3)	4134	401 (9.7)	3774	451 (12%)

CONTINUED...

	<u>1994</u>		<u>1995</u>		<u>1996</u>	
	<u>Tests</u>	<u>Pos (%)</u>	<u>Tests</u>	<u>Pos (%)</u>	<u>Tests</u>	<u>Pos (%)</u>
Men	1917	226 (11.8)	1650	147 (8.9)	1700	215 (12.6)
Women	2224	207 ( 9.3)	1880	136 (7.2)	1998	171 ( 8.6)
Total	4141	433 (10.5)	3530	283 (8.0)	3698	386 (10.4)

Chlamydia: Reason for presentation

Patients find out they have chlamydia because they are sexual partners of infected persons or because they are concerned (symptoms, other VD, etc); the former are classified as contacts, while the latter as volunteers or screening detections. The data below reflect STD, Family Planning, and Prenatal, Clinic patients (where the data are reliable).

Notice the improvement in the proportion of cases in men identified as a consequence of contact tracing; this proportion is generally between a quarter and a third and it is currently one half. This reflects the effects of both superior tests and enhanced contact tracing. This is not the same for women, for two reasons: 1) since diagnosed cases in women outnumber those in men by a factor of two, there are more opportunities to identify men as contacts than there are opportunities to identify women cases as contacts; and 2) women are likelier to be screened for chlamydia than men, in all medical settings except dedicated STD Clinics.

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Chlamydia Cases: reason for presentation  
(All H.D. Clinics, 1988-1996)

MEN

<u>Reason</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
Volunteer	138 (56.8%)	93 (64.6%)	123 (63%)	140 (55.3%)
Screen	24 (9.9%)	9 (6.2%)	9 (4.6%)	32 (12.7%)
Contact	81 (33.3%)	42 (29.2%)	63 (32.3%)	81 (32%)
	-----	-----	-----	-----
	243 (100%)	144 (100%)	195 (100%)	253 (100%)

MEN: CONTINUED...

	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>
Volunteer	111 (57.2%)	140 (56.2%)	124 (49.2%)	85 (55.2%)
Screen	27 (13.9%)	47 (18.9%)	41 (16.3%)	13 ( 8.4%)
Contact	56 (28.9%)	62 (24.9%)	87 (34.5%)	56 (36.4%)
	-----	-----	-----	-----
	194 (100%)	249 (100%)	252 (100%)	154 (100%)

MEN: CONTINUED...

	<u>1996</u>
Volunteer	89 (40.3%)
Screen	18 ( 8.1%)
Contact	114 (51.6%)
	-----
	221 (100%)

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WOMEN

	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
Volunteer/				
Screen	205 (76.5%)	112 (51.6%)	313 (70.7%)	291 (66.7%)
Contact	63 (23.5%)	105 (48.4%)	130 (29.3%)	145 (33.3%)
	-----	-----	-----	-----
	268 (100%)	217 (100%)	443 (100%)	436 (100%)

WOMEN: CONTINUED...

	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>
Volunteer/				
Screen	260 (75%)	226 (70.8%)	229 (73%)	156 (73%)
Contact	87 (25%)	93 (29.2%)	85 (27%)	57 (27%)
	-----	-----	-----	-----
	347 (100%)	319 (1060%)	314 (100%)	213 (100%)



WOMEN: CONTINUED...

	<u>1996</u>
Volunteer/	209 (75.2%)
Screen	
Contact	69 (24.8%)
	-----
	278 (100%)

STD Clinic women with chlamydia: reason for presentation

To develop a sense for the trend in reason for presentation (passive vs. active detection of cases) it is best to look at women with chlamydia in STD Clinic alone, since the STD Clinic is the site where women present as contacts and as volunteers or as screenees. Roughly half (789/1731) of STD Clinic women with chlamydia had their disease detected as a consequence of contact tracing between 1988 and 1996.

	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
Volunteer/	100(63%)	60(39%)	95(46%)	151(52.6%)
Screen				
Contact	59(37%)	95(61%)	113(54%)	136(47.4%)
	-----	-----	-----	-----
	159(100%)	155(100%)	208(100%)	287 (100%)

...CONTINUED...

	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>
Volunteer/	135(60.8%)	117(57.1%)	117(58%)	76 (57.1%)
Screen				
Contact	87(39.2%)	88(42.9%)	85(42%)	57 (42.9%)
	-----	-----	-----	-----
	222(100%)	205(100%)	202(100%)	133 (100%)

...CONTINUED...

	<u>1996</u>
Volunteer/	91 (56.9%)
Screen	
Contact	69 (43.1%)
	-----
	160 (100%)

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Chlamydia contact interviews

We have interviewed 4652 civilian cases of chlamydia in the last nine years, and obtained 7885 contacts, with a consistent contact index of about 1.7 for both men and women. During 1996, we were able to interview virtually double the number of cases interviewed the previous year (and to double the number of contacts elicited) thanks to the assignment of additional case-interviewing resources, obtained in mid-1995.

	1988		1989		1990	
	No.	Contacts	No.	Contacts	No.	Contacts
Men	190	321 (1.7)	114	171 (1.5)	159	262 (1.65)
Women	229	379 (1.7)	176	309 (1.8)	364	659 (1.8)
Total	419	700 (1.7)	290	480 (1.7)	523	921 (1.76)

CONTINUED...

	1991		1992		1993	
	No.	Contacts	No.	Contacts	No.	Contacts
Men	269	453 (1.68)	220	352 (1.6)	186	267 (1.4)
Women	434	753 (1.74)	351	646 (1.84)	331	515 (1.56)
Total	703	1206 (1.72)	571	998 (1.73)	517	782 (1.51)

CONTINUED...

	1994		1995		1996	
	No.	Contacts	No.	Contacts	No.	Contacts
Men	144	223 (1.55)	117	177 (1.51)	209	372 (1.78)
Women	287	499 (1.74)	314	501 (1.6)	558	1026 (1.84)
Total	431	722 (1.68)	431	678 (1.57)	767	1398 (1.82)

Fort Carson's Preventive Medicine folks have been doing an increasingly better job of interviewing their chlamydia cases starting (as we did) in 1988.

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Proportion of chlamydia cases interviewed  
(Fort Carson)

	1988	1989	1990	1991	1992	1993	1994	1995	1996
Reported Cases	447	552	435	544	566	541	481	284	276
Interviewed	65%	63%	90%	77%	85%	88%	93%	91%	95%

Thus, they have also reported about 4126 cases and have interviewed four-fifths (3313/4126); we don't know of any other organization that interviews that high a proportion of its chlamydia cases. They should be very proud of themselves, especially of their stellar performance during 1996.

Chlamydia contact tracing

Intensified contact tracing during 1996 produced an increase of one-third in the number of named contacts sought locally. (The increase in partners not examined is artifactual: starting 1 July 1996, as part of an effort to define the "interview" (infectious) periods for various categories of chlamydia patients, distant (historical) sexual partners are being sought to more firmly establish the upper bounds of such interview periods ("How far back in time one needs to search to still find infected, untreated partners" idea). As a consequence, many such historical partners are difficult to find, the young being as peripatetic as they are.

Local contacts to chlamydia: Outcomes

	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
Infected (New cases)	97 (18.5)	87 (19.8)	118 (15.2)	229 (23)
Not Infected	279 (53.3)	268 (60.1)	553 (71.2)	613 (61.6)
Not Examined	147 (28.1)	85 (19.3)	106 (13.6)	153 (15.4)
Total:	523 (100)	440 (100)	777 (100)	995 (100)

...CONTINUED...

	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>
Infected (New cases)	184 (21.1)	160 (21)	115 (15.4)	80 (12.5)
Not infected	564 (64.6)	367 (48.2)	384 (51.5)	345 (53.7)
Not examined	125 (14.3)	235 (30.8)	247 (33.1)	217 (33.8)
	873 (100)	762 (100)	746 (100)	642 (100)

...CONTINUED...

1996

Infected (New cases)	125 (14.7)
Not infected	377 (44.4)
Not examined	348 (40.9)
	-----
	850 (100)

Thus, 6608 contacts have been sought locally in nine years, of whom 1195 (18%) were newly identified cases; 3756 others were treated preventively but had negative tests. We bet that about 950 of these 3756 (about a quarter) were really positive, but the relatively insensitive tests in use until mid-1996 did not show positive results.

Proportion of Chlamydia Cases in Teens

The first full year of mandatory chlamydia reporting was 1992. Thus the data are reasonably reliable since then; they demonstrate that although the trend in overall proportion is remarkably stable, absolute numbers of cases in teens are declining:

<u>Year</u>	<u>Total Cases</u>	<u>Cases (Percentage) in Teens</u>
1992	1592	567 (35.6)
1993	1575	585 (37.1)
1994	1687	658 (39.0)
1995	1223	478 (39.1)
1996	1203	444 (36.9)

## Part II

## HUMAN IMMUNODEFICIENCY VIRUS INFECTION

Nineteen-Ninety-Six was a turning point in our 15 year struggle to stem HIV mortality: we happily recorded a 50 percent drop in reported deaths, from one a week to one every other week. This reduction was most pronounced during the latter half of 1996. (We surmise at least two major reasons: a survivor effect and the effect of powerful new anti-retrovirals, particularly protease inhibitors. In brief, "survivor effect" refers to a phenomenon common in epidemics: those whose immune defenses are superior tend to survive longer, while those with inferior defenses tend to die earlier. Thus, slowing of the death rate was a predictable event - even in the absence of efficacious medications. We suspect - and this is only a guess - that most of the reduction in the death rate can be attributed to better medications and much to a survivor effect.) Since protease inhibitors became available (and accessible) during 1995, we show data since then:

AIDS Deaths (by semester)

First 6 months 1995: 26  
 Second 6 months 1995: 19  
 First 6 months 1996: 16  
 Second 6 months 1996: 8

This phenomenon is reflected in CD-4 count gains during the 1990s. (The data are soft in that not all HIV carriers are tested for CD-4 count levels and for those tested locally, obligatory reporting did not start until mid-1983.) The table below shows the mean CD-4 count as of the end of the reporting year for folks "alive" (i.e., not known to be dead) as of the end of that year, by major risk category: men who have sex with men and injecting drug users. For convenience (small numbers) gay men who inject are lumped with IDU; for those of you who are curious, gay IDU have CD-4 counts that are almost intermediate between gay men and IDU.

Mean CD-4 Counts For Adults With HIV Or AIDS Not  
 Known To Be Dead As Of The End Of Reporting Year  
 (By major risk factor, 1992-1996)

<u>Year</u>	<u>Gay Men</u>	<u>Injectors</u>
1992	216	276
1993	243	300
1994	265	308
1995	285	329
1996	286	360

The fact that injectors have uniformly higher counts probably reflects a period effect: IDU were probably infected later than gay men.

Nearly half (47.3%) of the 368 persons not known to be dead as of the end of 1996 have CD-4 counts below 200; about two-fifths (41.3%) have counts between 200 and 500; and the remaining tenth (11.4%) have values between 500 and 1500. (Note: These 368 are the 72% (368/511) of those KNOWN to have had a CD-4 count that was reported to us.)

This is a significant improvement over previous years. If we look only at the proportion of folks not known to be dead at the end of each year who have counts approaching the dangerous level (200 or less), we see a dramatic change (below 50%, in 1996, for the first time on record):

<u>Year</u>	<u>Percent ("Alive") with Fewer than 200 Cells</u>
1992	67
1993	64
1994	60
1995	55
1996	47

Whatever the real reasons for improved morbidity and mortality data observed during the 1990s (especially in 1996), we note them with a sense

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of optimism - and faith in scientific medicine! The rest of the dull data  
presented in this Section also support our sense that we are beating this  
epidemic and that optimism is warranted.

### AIDS proper: a brief profile

About 600 adults with full-blown AIDS have lived in El Paso County since the first reported case in August 1982. Nearly three-fifths (57%) are known to be dead. Three hundred forty (57%) were counted locally, while more than two-fifths (261 cases) were diagnosed and counted elsewhere.

Note: all data in this Report refer to *adult* HIV/AIDS cases. Pediatric cases (N= 14) are discussed in the last section.

### AIDS cases having resided locally

Yr.	<u>Counted locally</u>			<u>Counted elsewhere</u>			<u>Total</u>		
	No.	Dead	(%)	No.	Dead	(%)	No.	Dead	(%)
1982	1	1	(100)				1	1	(100)
1983	2	2	(100)	3	3	(100)	5	5	(100)
1984	1	1	(100)	1	1	(100)	2	2	(100)
1985	7	7	(100)				7	7	(100)
1986	12	11	( 92)	10	5	( 50)	22	16	( 73)
1987	9	9	(100)	11	11	(100)	20	20	(100)
1988	25	23	( 92)	14	11	( 79)	39	34	( 87)
1989	31	29	( 94)	23	21	( 91)	54	50	( 93)
1990	32	28	( 87)	21	12	( 57)	53	40	( 76)
1991	33	29	( 88)	30	15	( 50)	63	44	( 70)
1992	27	16	( 59)	39	26	( 67)	66	42	( 64)
1993	47	20	( 43)	38	19	( 50)	85	39	( 46)
1994	49	19	( 39)	34	5	( 15)	83	24	( 29)
1995	42	9	( 21)	21	2	( 10)	63	11	( 17)
1996	22	4	( 18)	16	3	( 19)	38	7	( 18)
Ttl:	340	208	( 61)	261	134	( 51)	601	342	( 57)

The above table (Based on REPORT 1 in computer) shows year of diagnosis and whether the person diagnosed that year is known to be dead (i.e., the person may not have died in that year. For death by year in which it occurred, look 2 Tables below).

We feel that the difference in the proportion of those known to be dead locally (61%) versus 51% for cases diagnosed elsewhere is an artifact of capture-recapture (we more easily lose track of folks who come and go, as opposed to more permanent residents). If we assume that the proportion known to be dead should be similar, then we can deduce that the "true" number of deaths for cases counted elsewhere should be about 159 rather than 134; thus, at least 25 deaths remain

unrecorded.

More than half of all (N=1141) adult HIV cases have progressed to AIDS (601/1141= 53%). This rate, though increasing rapidly during the 1990s, has begun to slow, as shown below:

Proportion of all Adult HIV Cases Having Progressed to AIDS

1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
14%	11%	18%	20%	21%	26%	29%	38%	42%	51%	53%

Note: The change in the AIDS definition (in 1993) has served to increase our AIDS rates. Overall, during 1993-6, 145 AIDS (25% of all) cases were reported that would NOT have met the pre-1993 definition. (One case was added to 1989's total, 2 to 1990's, 6 to 1991's, 11 to 1992's, 34 to 1993's, 33 to 1994's, 35 to 1995's and 23 to 1996's.)

HIV/AIDS cases by age at report and clinical status  
(1982-1996)

It is instructive to examine the data by age at report and by age at clinical diagnosis. (The numbers in parentheses in the Table below represent the AIDS subset. Thus, for example, 51 (35) means that 51 persons with HIV were identified, of whom 35 are known to have AIDS.) Age at Report refers to age at report to our health department. Death refers to the year that the person died.

Because some HIV positive people move to El Paso County from other areas where they may have initially been diagnosed, it is possible for someone to be older at time of report than at time of initial diagnosis. The difference is illustrated in the following two tables. The first table records mean age at report to us; the second, mean age at initial diagnosis. (Based on YEARSTAT Report in computer.)

<u>Year Reported</u>	<u>Age at report</u>		<u>Totals</u>	
	<u>Mean</u>	<u>S.D.</u>	<u>HIV(AIDS)</u>	<u>Deaths</u>
1982-85	30.5	7.4	51 (35)	8
1986	30.1	8.5	128 (67)	9
1987	29.7	7.8	94 (50)	11
1988	32.7	10.7	101 (53)	31
1989	32.0	9.8	96 (51)	18
1990	32.4	9.8	99 (55)	36
1991	32.6	8.8	85 (46)	44
1992	33.2	9.3	97 (55)	48
1993	32.6	7.1	97 (53)	42
1994	33.6	7.0	111 (49)	44
1995	36.5	9.6	80 (36)	52
1996	36.8	9.6	102 (51)	25
-----				
Total			1141 (601)	368*

\* Of the 368 deaths, 334 occurred in AIDS patients and 34 in

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AIDS-free HIV persons (with death due to causes other than HIV).  
Thus at least one-third of all adults with HIV are known to be dead  
(368/1141) as of 12/31/96.

Note the steadily increasing age, which argues for a prevalent cohort (historically infected people progressing to disease and death, rather than newly infected folks). Note that about 100 persons with HIV are reported each year, which argues against the idea of rapid virus propagation.

HIV/AIDS cases by age at first diagnosis and clinical status  
(1982-1996)

<u>Year Diagnosed</u>	<u>Mean age</u>	<u>S.D.</u>	<u>All HIV/AIDS Cases</u>
1982-85	30.7	8.3	93
1986	29.7	8.1	158
1987	29.2	7.3	125
1988	32.3	10.3	119
1989	31.5	9.8	124
1990	31.5	8.7	111
1991	31.9	8.9	93
1992	31.8	8.5	79
1993	30.3	6.7	60
1994	33.9	7.4	68
1995	36.7	10.9	56
1996	36.2	10.5	49

Table has 6 missing observations (dates of first diagnosis unavailable)

In comparing the two tables we note that there are declining numbers of persons *newly being diagnosed* as having HIV each year (especially during the 1990s; column at right) and that people are increasingly older at time of first diagnosis. These data do not support the idea of lots of very young people newly becoming infected.

Miscellaneous age chronology data

In El Paso County, the mean age at acquisition of HIV is probably 28.7 years (based on data from 140 seroconverters); the mean age of those not known to have proceeded to AIDS or to have died is 36.0 (N= 511); the average age at AIDS is 35.7 (N= 601) and at death, 37.9 years (N= 368). The fact that, for the first time since we analyzed such data (1988), the mean age of people living with HIV is now OLDER than mean age at first AIDS diagnosis implies that people with HIV are now living disease-free for longer periods.

If we examine our HIV/AIDS reports by ethnicity, we see that (Non-Hispanic) whites comprise a declining proportion of reports - a proportion made up for by persons reporting Hispanic ethnicity. (Proportions among African-Americans are stable.)



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HIV/AIDS Cases (N= 1141) By Ethnicity Over Time

	<u>1982-1985</u>	<u>1986-1990</u>	<u>1991-1995</u>	<u>1996</u>
Caucasian	76.5%	70.2%	67.8	68%
Black	17.6%	17.5%	16.4%	18%
Hispanic	5.9%	10.9%	13.2%	14%
Other	None	1.4%	2.6%	None

Risk factor classification of AIDS and AIDS-Free Cases  
(1982-1996)

Comparing AIDS to HIV cases, you can get a feel for the changing face of the epidemic. AIDS cases represent the earlier face of the epidemic. The main changes are: 1) for men---a higher proportion of *heterosexual* injecting drug users (IDU); 2) for women---a slight increase in their proportional representation (see Legend at base of Table); 3) for women--- increased representation of sexual activity (as opposed to IDU) as presumed mode of acquisition. and 4) for both genders---the predictable decrease in transfusion as a risk factor, as the blood supply has gotten safer.

In a word, the HIV "epidemic" is not showing signs of getting out of the socio-drug-sexual networks of injecting drug users and of men who have sex with men.

Although not shown here, there is little difference between "known" and "suspected" risk factors. About 10% of HIV/AIDS cases don't admit to classic risk factors; the public health interviewer then makes a determination of risk ("suspected"). When you compare the distribution of "known" vs. "suspected" risk factors, they are a virtual mirror image. For the Table below, we make no distinction between "known" and "suspected", since they are, for operational purposes, identical; thus the Table represents the best view (10% educated guess) of risk classification.

(These data are based on REPORT 4 in the computer.)

	<u>AIDS (Full-Blown)</u>		<u>HIV (AIDS-Free)</u>	
	Men (N=545)*	Women (N=56)*	Men (N=466)*	Women (N=74)*
Gay/bi-sexual	72%	N/A	72%	N/A
Gay/ I.D. user	16%	N/A	9%	N/A
I.D. user (Hetero)	10%	54%	15%	55%
Sex with IDU/Hetero	<1%	35%	2%	41%
Transfusion	2%	9%	2%	4%
Other/Undeterminable		2%		
-----				
Total		100%		100%

\*There are 88, or 7.7% of the total 1141 cases, for which no risk factor information is available. Thus the true denominator for these four columns is 1053. (We are using the full N in paren-

theses to show the complete case distribution by gender. Notice that the male-to-female ratio for AIDS cases is 9.7:1, but 6.3:1 for those not known to have AIDS. Thus the proportion of women is increasing (from 9.3% to 13.7%); note that the *numbers* of infected women are relatively small.

#### HIV/AIDS Control Program

This program consists of two parts: the Counseling/Testing site and the Control Program proper (e.g., outreach efforts). What follows is a potpourri of data and observations that help paint an impressionistic picture of what is happening locally with HIV infection.

#### HIV infection by source of report and gender (1982-1996)

(Based on REPORT 9 in computer.)

The following represents the distribution of adults with HIV (including full-blown AIDS cases) reported, and where they were first identified. Note that three-quarters are detected outside of health department clinics. In recent years, the relative relative contribution of Donor Centers and the Military has been declining. Note also how few of our Drug Clinic clients are infected.

	<u>Ttl Cases/(%)</u>	<u>Men</u>	<u>Women</u>
1. Counseling/Testing Site (Health Dept.)	197 (17.4)	185	12
2. S.T.D. Clinic	52 (4.6)	38	14
3. Prostitution arrest	9 (0.8)	1	8
4. Drug Clinic	4 (0.4)	2	2
5. Donor centers	141 (12.5)	128	13
6. Military*	132 (11.7)	122	10
7. Doctors/hospitals/other	594 (52.6)	523	71
-----			
Total:	1129 (100)	999(88.4)	130(11.5)

There are 12 missing observations (all men)

\* Actually, military doctors have reported 192 cases, of whom 132 are/were on active duty at time of report and 60 are/were retired or dependents...the latter are lumped in category #7 above.

#### HIV infection by reason for presentation (Based on REPORT 10 in computer.)

A person's infection status is ordinarily detected via screening, or spontaneous presentation with symptoms (or curiosity), or contact tracing. Monitoring changes in presentation trends is important to assess the usefulness of screening or contact tracing efforts. The question we ask is:

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how did the HIV-infected person *initially* find out about his infection status ("Reason for presentation")? These data are based on the 1003 (88% of cases) with known information.

...viewed annually (percentages):

Reason	Thru 1986	1987	1988	1989	1990	1991	1992	1993	1994
Volunteer	23.1	20.6	13.2	16.0	21.9	11.4	16.4	19.2	15.0
Screen	63.8	74.8	78.3	76.4	62.5	78.4	76.1	67.3	68.3
Contact	13.0	4.7	8.5	7.6	15.6	10.2	7.5	13.5	16.7

-----  
100 percent

...CONTINUED...

	1995	1996
Volunteer	18.6	27.5
Screen	69.8	62.5
Contact	11.6	10.0

Note that, overall (1982-1996), every 10th case is detected as a consequence of contact tracing, 68.4% as screenees, and 18.2% as volunteers.

## HIV contact interviews

(1985-1996)

(Based on REPORT 11 in computer.)

Many health jurisdictions in the United States do not interview HIV patients for sexual and needle-sharing partner information; they consider the procedure ineffectual or politically delicate. We have successfully conducted such "partner notification" (contact tracing) interviews on positive clients since the late fall of 1985.

Declining numbers of persons experiencing a first diagnosis of HIV also means that fewer persons receive formal contact interviews.

<u>Year</u>	<u>No. Interviews</u>	<u>No. Contacts</u>	<u>Contact Index</u>
1985*	30	57	1.9
1986	96	184	1.9
1987	46	78	1.7
1988	62	126	2.0
1989	66	141	2.1
1990	60	128	2.1
1991	43	81	1.9
1992	58	86	1.5
1993	43	62	1.4
1994	55	96	1.7
1995	35	58	1.7
1996	23	50	2.2
Ttl:	617	1147	1.9

\* Last quarter of 1985 only (when we officially began)

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There are many reasons for our not having conducted contact-interviewing on 524 cases (1141 adult cases ever reported; 617 formally interviewed by us). The vast majority not interviewed were not successfully located (N=203 cases) or were not eligible for contact interview (because counseled or interviewed in the jurisdiction of original diagnosis --of which 124 are civilian and 129 military) or we botched the opportunity (N= 32) or the client refused (N=10). Lastly, some cases are still in process (N=26); this high number reflects the fact that many of 1996's new diagnoses were reported to us during the last quarter.

Thus our Program has so far interviewed seventy percent of all eligible HIV/AIDS cases (617/888) or *ninety percent (617/685) of those that can be successfully located* (the most flattering way to look at the data!

Between 20% and 25% of cases name no identifiable partners and one-third name only one; about 40% name two or more partners (range 2-18).

## HIV seroconverters

(Report 13 in computer)

Persons who initially test negative for HIV antibody and who are subsequently (weeks to months later) positive are classified as seroconverters - true public health failures, because it is easy, with modest effort, to avoid getting infected. Under most circumstances, HIV is very difficult to acquire. Just as AIDS cases represent the old faces of the epidemic, so seroconverters represent the new faces - hence their importance as sentinel cases.

## Seroconverters by year of conversion

Year	Civilians	Military	Total
1981	1	0	1
...			
1986	9	1	10
1987	7	2	9
1988	9	3	12
1989	11	3	14
1990	10	8	18
1991	13	5	18
1992	9	5	14
1993	10	7	17
1994	9	5	14
1995	7	3	10
1996	1	2	3
-----			
Ttl:	84 (68.6%)	44 (31.4%)	140 (100%)

Not all seroconversions are observed; these data are mainly useful as a trend indicator. [Caveat on recent data: it usually takes a year or two to "observe" recent seroconversions; hence recent (i.e., last two years or so) data are artifactually low.

Much of the reason for the disproportionate representation of military cases (they're about one-tenth of our adult population) is artifactual: their population is frequently tested and those who newly positive are repatriated.

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from overseas; when repatriated locally, they are immediately reported to us.

Seroconverters are not very young, contrary to the propaganda in media reports; the average (mean) age at seroconversion is 28.7 years (Range 17 to 57 yrs). Only four of the 140 seroconverters are teens: 17 years old (one) and 19 (three). Half convert in the 20-27 age interval and another third convert at ages 31-37. Thus, the distribution is bi-modal, with excessive risk in the first half of both the twenties and thirties. (Average age at seroconversion has not changed during the last decade.) (Based on AGESTAT Report in computer)

Through the 1980s, seroconverters tended to be men; only two (4.3%) of 46 seroconverters were women. During the 1990s, women have been catching up: 10 of 94 (10.6%) recent converters are women. Half (5/10) of these 10 women are injecting drug users, while almost all of the men (98%) are men who have sex with other men and 2% are IDU. Whatever new transmission has been occurring locally seems to be predominantly homosexual, rather than via needles. (Report 4a in computer.)

## Health Department HIV antibody testing (1985-1996)

HIV testing began in the summer of 1985 in the Counseling/Testing Site (CTS) and to be offered in other clinics, principally the STD clinic, in 1988. (Drug clinic clients were tested via the generic testing site since the fall of 1985.) The data below are aggregated to reflect total H.D. activity, irrespective of clinic.

We have collected 23,737 specimens for testing since 1 June 1985; 2373 were done in 1996, about the same as 1994 and 1995. Demand for testing has thus stabilized to a predictable level. (Two-thirds of tested folks in 1996 returned to obtain test results; positives persons who do not return for results are conscientiously sought to assure their knowing their results.)

To develop a sense for trend in positivity, it is best to simply look at tests done in the CTS alone, since this is where the high-risk people are likeliest to seek testing.

## HIV testing in the CTS: 1985-1996

	1985-86	1987	1988	1989	1990	1991	1992	1993	1994
Tests	878	764	784	658	835	1814	2777	2226	1817
No. positive	68	18	19	14	17	12	12	13	12
% positive	7.7	2.4	2.4	2.1	2.0	0.7	0.4	0.6	0.7

...CONTINUED...

	1995	1996
Tests	1904	1823
No. positive	11	13
% positive	0.6	0.7

Thus, 16,280 tests in CTS yielded 209 positives (1.3%) in the 11.5 years since the test became available; the CTS alone has served to identify only about one positive per month for the last 10 years.

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## HIV (Ab) testing in STD Clinic

	1985-86	1987	1988	1989	1990	1991	1992	1993
No. of Tests	12	73	231	320	418	644	893	614
No. Positive	8	3	3	5	9	4	5	0
Percent Positive	75	4.1	1.3	1.6	2.2	0.6	0.6	0
CONTINUED...	1994	1995	1996					
No. of Tests	673	649	550					
No. Positive	3	3	1					
Percent Pos.	0.4	0.5	0.2					

We see that while the number of persons tested rose appreciably since 1987, the positivity rate has steadily declined. (All positive persons revealed recognized risk factors.) Overall, 4527 tests were done in STD Clinic, with 43 positives identified (1%).

### AIDS-virus infection in children:

Fourteen children have been reported to us as being AIDS-virus infected since the beginning of the epidemic; half are known to be alive, virtually all of whom are recently diagnosed (since 1993).

"Age" means age at diagnosis, not current age. (Their ATS # are, in sequence: 1163, 2369, 4505, 6044, 7278, 10027, 10423, 10746, 11338, 13682, 14909, 17103, 17292 and 17438.)

<u>Gender</u>	<u>Age</u>	<u>Status</u>	<u>Route of infection</u>	<u>Year reported</u>
Male	10 yrs	Dead	Transfusion (Hemophiliac)	1985
Male	Newborn	Dead	Inf. mother (transfusion); birth	1985
Male	3 yrs	Dead	Inf. mother (transfusion); birth	1985
Male	3 yrs	Alive*	Infected mother (IDU); birth	1988
Female	Newborn	Dead	Inf. mother (Ct. to IDU); birth	1990
Male	13 yrs	Dead	Transfusion (Hemophiliac)	1990
Male	Newborn	Dead	Inf. mother (Sex with HIV+); birth	1991
Female	6 mos.	Dead	Inf. mother (Sex with HIV+); birth	1992
Male	10 yrs	Alive	Transfusion (Hemophilia)	1993
Female	Newborn	Alive	Inf. mother (Sex with IDU)	1993
Male	20 mos.	Alive	Inf. mother (Risk unknown:Arizona)	1994
Female	3 mos.	Alive	Inf. mother (Risk unknown:Germany)	1994
Female	9 yrs	Alive	Inf. mother (Risk unknown as of now)	1995
Female	9 years	Alive	Child sexual abuse (Infected dad?)	1996

\* Attending school locally (age 11 as of 1996)

In addition, there have been 10 newborns whose mothers had HIV during pregnancy. Of the ten, 2 are (temporarily) lost to follow-up (ATS # 8129 and 10789), while the other eight are not infected (ATS # 8044, 11675, 13278, 13468, 15150, 15240, 17418, and 17424); 2 were born in 1991, 3 in 1992, 1 in 1993, 3 in 1994, and 1 in 1995.

Part III  
Gonorrhea control

We report 342 cases of gonorrhea for calendar 1996, a nearly 30% decline over 1995 - part of the continuing decline in incidence since the mid-1980s (1500-cases per year levels). We now have the lowest number of cases (see Tables, rear of document) and attack rate on record (below).

The decline probably reflects society-wide conservatism vis-a-vis sexual adventurism. More and more people are seemingly using self-defense in the sexual arena (being selective about sexual partners and/or using barrier methods, such as condoms) to minimize risk. Some empiric evidence supports this view: the average number of sex partners per interview has been declining for at least four years (see below).

Contact interviewing activity  
(1977-1996)

	<u>'77-'79</u>	<u>'80-'82</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>
	(Averages)									
Interviewed	70%	93%	97%	94%	89%	90%	91%	90%	90%	93%
Contacts per Case	1.35	1.87	1.8	1.8	1.7	1.8	1.7	1.5	1.6	1.65

...CONTINUED...	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>
Interviewed	95.2%	92.1%	89.2%	73.6%	88.6%	88.3%
Contacts per case	1.73	1.81	1.55	1.52	1.54	1.61

Gonorrhea case distribution  
(1987-1996)

Cases	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>
Civilian	592 (59.1%)	477 (51.5%)	449 (52.1%)	425 (50.6%)
Fort Carson	385 (38.4%)	428 (46.2%)	394 (45.8%)	397 (47.3%)
USAF	25 (2.5%)	22 (2.4%)	18 (2.1%)	18 (2.1%)
Total:	1002	927	861	840
...CONTINUED...	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>
Civilian	440 (56.7%)	368 (58%)	303 (58.6%)	531 (68.9%)
Fort Carson	324 (41.8%)	255 (40.1%)	205 (39.7%)	236 (30.5%)
USAF	12 (1.5%)	12 (1.9%)	9 (1.7%)	6 (0.8%)
Total:	776	635	517	773

...CONTINUED...

	<u>1995</u>	<u>1996</u>
Civilian	326 (67.4%)	236 (69.0%)
Fort Carson	152 (31.4%)	102 (29.8%)
USAF	6 ( 1.2%)	4 ( 1.2%)
	-----	-----
Total:	484	342

Gonorrhea morbidity is increasingly a civilian phenomenon. For the last quarter century, the military gonorrhea burden tended to dominate the local scene, with 40-45% of cases being reported from the military sector. During the last three years, a notable decline has occurred; the military now accounts for only thirty percent of cases.

The proportion and number of gonorrhea cases accounted for by teens continues to decline; teens seemed to be the last age-category of clients in Colorado Springs who were paying much attention to Safer-Sex messages. The trend is encouraging. Only 92 teens were diagnosed with gonorrhea in 1996, the lowest number on record.

Gonorrhea in Teens  
(Since AIDS)

<u>Year</u>	<u>Total Gonorrhea</u>	<u>Total (%) in teens</u>
1981	1537	336 (21.9)
1982	1263	281 (22.2)
1983	1280	246 (19.2)
1984	1525	350 ( 23)
1985	1530	341 (22.3)
1986	1265	304 ( 24)
1987	1002	229 (22.9)
1988	927	214 (23.1)
1989	861	248 (28.8)
1990	840	247 (29.4)
1991	776	237 (30.5)
1992	635	207 (32.6)
1993	517	150 (29.1)
1994	773	246 (31.8)
1995	484	135 (27.9)
1996	342	92 (26.9)

Gonorrhea contact tracing  
(1980-1996)

Only 48 gonorrhea cases were newly identified as a consequence of contact tracing during 1996. Our concern is the high percentage (and number) of contacts not examined (41.7%). Ordinarily, the proportion of contacts examined (New cases + Not Infected) hovers around 75%. Part of this difference (75% vs the observed 60%-65% during the last three years) can be attributed to the nature of partner selection in socio-sexual circles of people currently acquiring GC; these may be folks the fabric of whose lives is so shredded as to make contact



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tracing more difficult. The other part may well reflect poorer-quality contact tracing efforts on the part of the Colorado Department of Health assignee whose responsibility is the management of civilian GC cases and their partners locally, with two factors contributing to this sub-par performance during the last three years: poor supervision from his superiors and low morale of the assignee himself. Remedial steps are being taken by supervisory staff both locally and, most importantly, at the Colorado Department of Health in Denver.

Local contacts to gonorrhea: Outcomes

	<u>1980-1982</u> <u>(Average)</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Infected (New cases)	380 (29.6%)	357 (25.9%)	475 (29.8%)	375 (23.5%)
Not infected	500 (38.9%)	567 (41.1%)	637 (40%)	593 (37.2%)
Not examined	405 (31.5%)	456 (33%)	481 (30.2%)	627 (39.3%)
Total sought	1285 (100%)	1380 (100%)	1593 (100%)	1595 (100%)

...CONTINUED... 1986                      1987                      1988                      1989

Infected (New cases)	276 (22.4%)	226 (25.6%)	197 (30.1%)	150(23.7%)
Not infected	490 (39.7%)	427 (48.3%)	269 (41.1%)	312(49.3%)
Not examined	468 (37.9%)	231 (26.1%)	188 (28.8%)	171(27.0%)
Total sought	1234 (100%)	884 (100%)	654 (100%)	633(100%)

...CONTINUED... 1990                      1991                      1992                      1993

Infected (New cases)	239 (30%)	214 (29.7%)	222 (31.1%)	136(35%)
Not infected	389 (49%)	361 (50.1%)	347 (48.5%)	150(38.5%)
Not examined	166 (21%)	145 (20.1)	146 (20.4%)	103(26.5%)
Total sought	894 (100%)	720 (100%)	715 (100%)	389 (100%)

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...CONTINUED...	<u>1994</u>	<u>1995</u>	<u>1996</u>
Infected			
(New cases)	157 (33.1%)	78 (22.5%)	48 (18.5%)
Not infected	152 (32.1%)	143 (41.2%)	103 (39.8%)
Not examined	165 (34.8%)	126 (36.3%)	108 (41.7%)
Total sought	474 (100%)	347 (100%)	259 (100%)

Gonorrhea: Reason for Presentation (Epidemiologic category)  
(C:\MYSAS\DISEASE\MF-94.SAS.)

The following data reinforce the observation that GC case-finding efforts during 1994-1996 have not been optimal: volunteers are currently about 62% of cases (i.e., patients are detected when symptomatic rather than being intercepted by contact tracing earlier in the disease process).

	<u>1984</u>	<u>1985</u>	<u>1986</u>
Volunteer	838 (55%)	870 (56.9%)	680 (53.8%)
"Screenee"	170 (11.1%)	210 (13.7%)	192 (15.2%)
Contact	517 (33.9%)	450 (29.4%)	393 (31%)
Total cases	1525 (100%)	1530 (100%)	1265 (100%)
...CONTINUED...	<u>1987</u>	<u>1988</u>	<u>1989</u>
Volunteer	537 (53.6%)	502 (54.2%)	485 (56.3%)
"Screenee"	159 (15.9%)	140 (15.1%)	133 (15.5%)
Contact	306 (30.5%)	285 (30.7%)	243 (28.2%)
Total cases	1002 (100%)	927 (100%)	861 (100%)
...CONTINUED...	<u>1991</u>	<u>1992</u>	<u>1993</u>
Volunteer	426 (54.9%)	344 (54.2%)	269 (52%)
"Screenee"	122 (15.7%)	107 (16.8%)	125 (24.2%)
Contact	228 (29.4%)	184 (29%)	123 (23.8%)
Total cases	776 (100%)	635 (100%)	517 (100%)
...CONTINUED...	<u>1995</u>	<u>1996</u>	
Volunteer	292 (60.3%)	212 (61.9%)	
"Screenee"	72 (14.9%)	43 (12.5%)	
Contact	120 (24.8%)	87 (25.6%)	
Total cases	484 (100%)	342 (100%)	

And, historically (percentages only):

	1976	1977	1978	1979	1980	1981	1982	1983
Volunteer	63.1	62.2	61	62.8	57.3	51.7	58	55.6
"Screenee"	11.4	10.7	11.7	10.1	9.9	8.3	8	11.9
Contact	25.5	27.1	27.3	27.1	32.8	40	34	32.5

...CONTINUED...

	1984	1985	1986	1987	1988	1989	1990
Volunteer	55	56.9	53.8	53.6	54.2	56.3	59.3
"Screenee"	11.1	13.7	15.2	15.9	15.1	15.5	14
Contact	33.9	29.4	31	30.5	30.7	28.2	26.7

...CONTINUED...

	1991	1992	1993	1994	1995	1996
Volunteer	54.9	54.2	52.0	52.9	60.3	61.9
"Screenee"	15.7	16.8	24.2	19.1	14.9	12.5
Contact	29.4	29	23.8	28	24.8	25.6

#### Gonococcal pelvic inflammatory disease

	1976	1977	1978	1979	1980	1981	1982	1983
Cases	130	111	85	84	84	76	79	108
Percent	18.3	15.5	15.4	16	14	12	17	21

CONTINUED...	1984	1985	1986	1987	1988	1989	1990	1991
Cases	75	123	98	73	73	73	87	74
Percent	12.7	19.7	17.7	16.3	18.6	20.2	25.4	23.6

CONTINUED...	1992	1993	1994	1995	1996
Cases	71	44	73	67	37
Percent	25	21.3	20.2	29.8	23.9

The notable datum is the percentage recorded for the last eight years: somewhere between 20-30% of all women with gonorrhea have PID signs or symptoms. We suspect this has to do with the kind of woman who is currently getting gonorrhea: living a rough life.

Urethrally asymptomatic men

Men with inapparent infection have traditionally been vigorously pursued in El Paso County: the consistency in the trend is best viewed from the column at the far right.

<u>Year</u>	<u>Asymptomatic</u>	<u>All men</u>	<u>Pct. Asymptomatic</u>
1981	143	927	15.4
1982	116	814	14.3
1983	131	777	16.9
1984	139	936	14.9
1985	126	907	13.9
1986	106	712	14.9
1987	101	554	18.2
1988	92	534	17.2
1989	82	500	16.4
1990	78	513	15.2
1991	57	451	12.6
1992	61	354	17.2
1993	38	310	12.3
1994	70	412	17
1995	34	262	13
1996	24	187	12.8

Gonorrhea repeat cases

The contribution to the gonorrhea burden made by repeaters is the very lowest it has ever been (we love good news):

<u>Year</u>	<u>Repeat cases</u>	<u>Percent of all cases</u>
1973	159	9.9
1974	180	11.0
1975	129	7.7
1976	170	8.6
1977	229	11.5
1978	138	9.1
1979	156	10.2
1980	129	8.5
1981	136	8.8
1982	86	6.8
1983	89	6.9
1984	132	8.6
1985	92	6.0
1986	73	5.8
1987	48	4.8
1988	61	6.6
1989	47	5.6
1990	51	6.1
1991	50	6.4
1992	29	4.6
1993	28	5.4
1994	67	8.7
1995	25	5.1
1996	16	4.7

In terms of bodies, only 14 persons (8 women!) were repeaters in 1996; 12 had 2 episodes and 2 had 3. These 14 persons generated only

30 cases in all.

#### Gonorrhea cases in African-Americans

Three-fifths of all GC cases affect African-Americans, a proportion that has remained stable during the last five years; the very good news, however, is that the *number* of cases has been halved (from 381 to 194).

	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
Number	743	637	519	542	532	576	546
Percent	(48.6)	(50.4)	(52)	(58.5)	(61.8)	(68.6)	(70.3)

...CONTINUED...

	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>
Number	381	326	484	288	194
Percent	(60)	(63)	(66)	(61)	(60)

#### Gonorrhea in homosexual men

(Since AIDS)

The trend continues to support our view that most gay men are being careful in their sexual relationships.

#### Percent of male gonorrhea cases in gay men

Before AIDS (1-6/`81)	16.2%
AIDS reported (7/`81-12/`81)	9.4%
1982	6.9%
1983	7.2%
1984	6.5%
1985	5.4%
1986	2.0%
1987	0.2%
1988	1.7%
1989	1.2%
1990	0.04%
1991	1.3%
1992	2.0%
1993	1.0%
1994	Not available
1995	1.5%
1996	2.2%

#### Gonorrhea case rates

(Assumes a 1996 population of about 474,000): The current rate is the lowest on record AND the first time ever that the rate per 100,000 has fallen into the two-digits. The rate is an incredible 90% lower than during the peak years of the epidemic (mid-1970s).

Gonorrhea rates (cases/100,000)

<u>1970</u> 667	<u>1973</u> 700	<u>1977</u> 735	<u>1980</u> 468	<u>1981</u> 471	<u>1982</u> 383	<u>1983</u> 385	<u>1984</u> 438
CONTINUED...		<u>1985</u> 420	<u>1986</u> 333	<u>1987</u> 255	<u>1988</u> 232	<u>1989</u> 213	<u>1990</u> 208
CONTINUED...		<u>1991</u> 192	<u>1992</u> 155	<u>1993</u> 125	<u>1994</u> 186	<u>1995</u> 106	<u>1996</u> 70 !!!

PPNG (penicillinase-producing N. gonorrhoeae) cases:

During 1996 we recorded 25 cases of PPNG - a probable statistical blip - as opposed to what happened in 1990-1991 (outbreak in local gangs). Whereas we were able to demonstrate pronounced endogenous transmission of PPNG during 1990-1991, cases observed during 1996 did not appear to be connected or to suggest local origin.

Nevertheless, the trend is mildly disturbing in that the *proportion* of all GC cases being diagnosed as PPNG has increased considerably during the 1990s, being highest during 1996 (7.3%). Although overall, since PPNG was first discovered in 1976, only 233 of 24,093 GC cases diagnosed locally have been PPNG (a hair under 1%), distribution by ten year interval shows that the *proportion* has increased ten-fold:

PPNG By (Roughly) 10-Year Period

	<u>PPNG Cases</u>	<u>Total Gonorrhea</u>	<u>Percentage of all GC</u>
1976-1985:	43	15,674	0.27%
1986-1996:	190	8,419	2.25% !!

PPNG cases By Year (since their discovery)

<u>1976</u> 0	<u>1977</u> 1	<u>1978</u> 0	<u>1979</u> 3	<u>1980</u> 0	<u>1981</u> 7	<u>1982</u> 21	<u>1983</u> 5	<u>1984</u> 2
<u>1985</u> 4	<u>1986</u> 20	<u>1987</u> 15	<u>1988</u> 16	<u>1989</u> 13	<u>1990</u> 44	<u>1991</u> 32	<u>1992</u> 15	<u>1993</u> 2
	(1.6)	(1.5)	(1.7)	(1.5)	(5.2)	(4.1)	(2.4)	(0.4)
<u>1994</u> 14	<u>1995</u> 4	<u>1996</u> 25						
(1.8)	(0.8)	(7.3)						

Male-to-female ratio: Gonorrhea

This ratio is hovering at all-time low levels (very near parity). This has to do not only with the absence of gay men in GC morbidity but, importantly, in the declining share of cases accounted for by Fort Carson (heavily male).

<u>Year</u>	<u>Men</u>	<u>Women</u>	<u>Ratio</u>
1973	984	613	1.6:1
1974	1015	615	1.65:1
1975	1033	643	1.61:1
1976	1266	712	1.78:1
1977	1284	714	1.8:1
1978	964	551	1.75:1
1979	1002	523	1.91:1
1980	918	602	1.52:1
1981	928	609	1.52:1
1982	807	456	1.77:1
1983	775	505	1.53:1
1984	936	589	1.59:1
1985	907	623	1.46:1
1986	712	553	1.29:1
1987	554	448	1.23:1
1988	534	393	1.36:1
1989	500	361	1.38:1
1990	513	327	1.57:1
1991	451	325	1.39:1
1992	361	274	1.32:1
1993	310	207	1.5: 1
1994	412	361	1.14:1
1995	262	222	1.18:1
1996	187	155	1.21:1

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Part IV

Other STD Program data/miscellaneous

STD contact interviews: 1973-1996

We've conducted more than 30,000 contact interviews since 1973; during 1996, we interviewed about ten percent more cases than in 1995, an increase entirely due to our intensified chlamydia contact interviewing efforts (see page 1 of this Report).

<u>Yr</u>	<u>Civilian</u> <u>Gonorrhea</u>	<u>Ft.Carson</u> <u>Gonorrhea</u>	<u>Syphilis</u> <u>(All)</u>	<u>Civilian</u> <u>Chlamydia</u>	<u>Ft.Carson</u> <u>Chlamydia</u>	<u>HIV/</u> <u>AIDS</u>	<u>Ttl</u>
'73	339	420 (Est.)	48				807
'74	316	400 (Est.)	41				757
'75	334	404 (Est.)	35				773
'76	309	554 (Est.)	26				889
'77	424	520 (Est.)	14				958
'78	382	570	22				974
'79	693	645	18				1356
'80	759	574	18				1351
'81	843	632	19				1494
'82	617	620	17				1254
'83	693	552	15				1260
'84	780	644	27				1451
'85	749	619	29			30	1427
'86	671	467	30			96	1264
'87	556	355	13			46	970
'88	442	395	9	419	234	62	1561
'89	418	358	17	290	355	66	1504
'90	424	357	21	523	336	60	1721
'91	445	294	27	703	421	43	1933
'92	339	246	13	571	481	58	1708
'93	267	194	28	517	475	43	1524
'94	336	233	12	431	449	55	1519
'95	285	144	15	431	310	35	1220
'96	203	99	9	767	262	23	1363 (+10%)
<hr/>							
Ttl:	11857	10296	523	4652	3323	617	31268



## 1996 STD/HIV Annual Report

Outreach: field investigations

More than 50,000 client tracing investigations have been completed since 1973. During 1996, about one-fifth more were done compared to the previous year. The increase was entirely due to intensified contact tracing and follow-up of both chlamydia and HIV cases (afforded by increased staff since mid-1995).

Note: The categories "Gonorrhea, Syphilis, and Chlamydia" include only contacts (sexual partners) to these diseases.

<u>Year</u>	<u>Gonorrhea</u>	<u>Syphilis</u>	<u>Chlamydia</u>	<u>Other*</u>	<u>HIV**</u>	<u>Total</u>
1973	892	114	N/A	405	N/A	1411
1974	805	114		441		1360
1975	719	124		633		1476
1976	979	78		718		1775
1977	1199	53		530		1782
1978	870	92		580		1542
1979	1032	33		583		1648
1980	1256	46		572		1874
1981	2205	41		483		2729
1982	1307	29		446		1782
1983	1754	41		449		2244
1984	2078	45		472		2595
1985	2038	49		532	25	2644
1986	1519	59		538	307	2423
1987	1042	24	7	456	96	1625
1988	757	32	570	577	246	2182
1989	792	36	498	446	320	2092
1990	1051	37	946	716	331	3081
1991	916	66	1148	921	419	3470
1992	854	68	979	900	249	3050
1993	445	59	836	603	239	2182
1994	611	25	777	841	242	2496
1995	400	18	720	614	185	1937
1996	328	28	1034	626	304	2320 (+20%)
-----						
Total:	25849	1311	7515	14082	2963	51720

\* Follow-up for positive syphilis serologies, positive GC and chlamydia tests, and test-of-cure follow-ups.

\*\* Contacts to HIV and positive ELISA test follow-ups

Newly identified STD cases

(1973-1996)

STD patient interviewing and the tracing of named partners occasioned the identification of 8610 new cases (called "broughts", short for brought-to-treatment in jargon) since 1973, or about one per day.

<u>Year</u>	<u>Broughts</u>	<u>Year</u>	<u>Broughts</u>
1973	301	1987	240
1974	284	1988	299
1975	318	1989	244
1976	338	1990	366
1977	409	1991	447
1978	427	1992	418
1979	404	1993	296
1980	501	1994	276
1981	667	1995	155
1982	519	1996	179
1983	360		
1984	481		
1985	393		
1986	288		

STD Clinic Attendance

VD Clinic attendance has been pretty stable for years, with between 4,000 and 5,000 annual visits (Mean= about 4,400).

<u>Year</u>	<u>New visits</u>	<u>Return visits</u>	<u>Total</u>
1973	2449	2039	4488
1974	2938	2224	5162
1975	3508	2267	5775
1976	2988	2368	5356
1977	2546	2497	5043
1978	2316	2114	4430
1979	2201	2166	4367
1980	2209	1959	4168
1981	2471	2076	4547
1982	2135	1721	3856
1983	2218	1691	3909
1984	2234	1650	3884
1985	2301	1565	3866
1986	2250	1562	3812
1987	2042	1350	3392
1988	2323	1675	3998
1989	2319	1733	4052
1990	2223	2211	4434
1991	2387	2629	5016
1992	2664	2304	4968
1993	2646	1853	4499
1994	2769	2289	5058
1995	2273	1822	4095
1996	2360	1829	4189

-----  
 24-year total: 106,364  
 (Mean = 4432 per year)

Non-reportable STDs in V.D. Clinic

Data for non-reportable STDs were first recorded in a systematic way during calendar 1982. These data are not catholic, because only STD Clinic information is included. In addition, they are very soft, because neither diagnostic nor surveillance criteria are rigorous. They are presented mainly as rough trend indicators. Please note the strong decline in male urethritis ("NGU/Chlamydia") after years of strong increases (the 1990s, which were due to our chlamydia screening efforts, starting in the late 1980s). Another encouraging datum arguing for people being more careful in sexual matters is the tremendous decline in venereal warts diagnoses. No data are given for Herpes for 1991-96 because they were not rigorously kept, but we know that case levels are low. For women, note the spectacular decline in all classic sexually transmissible disease diagnoses. The only stable ones are those that are not rigorously sexually transmitted (like yeast and gardnerella); the increase in chlamydia is artifactual (new tests and intensified contact tracing during 1996).

<u>Infection</u>	<u>MEN</u>								
	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>
NGU/Chlamydia	569	552	512	447	419	416	489	383	477
Herpes (1st Episode)	70	83	34	32	59	49	42	28	3
Venereal warts	131	185	127	132	172	119	244	252	310
Scabies	17	21	15	10	19	21	15	25	10
Phithirus pubis	56	59	44	50	41	54	40	43	38
Totals:	843	900	732	671	710	659	830	731	838

...CONTINUED...

	<u>MEN</u>					
	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>
NGU/Chlamydia	667	696	675	766	436	484
Herpes	N/A	N/A	N/A	N/A	N/A	N/A
V. Warts	228	292	256	303	157	102
Scabies	20	29	23	25	35	25
P. Pubis	43	43	40	24	19	22
Totals:	958	1060	994	1118	647	633

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InfectionWOMEN

	1982	1983	1984	1985	1986	1987	1988	1989	1990
Chlamydia		Not Available	here				175	151	195
Trichomoniasis	461	492	390	275	112	115	103	99	79
Monilia	456	463	391	318	110	188	231	284	279
NSV	250	279	257	233	297	240	337	435	474
Herpes (1st Episode)	51	59	25	18	38	33	35	25	13
Venereal warts	55	62	49	76	72	61	117	88	112
Scabies	4	4	3	4	9	4	10	11	6
Phithirus pubis	29	31	22	17	29	24	22	36	31
Totals:	1306	1390	1137	941	667	665	1030	1129	1189

...CONTINUED...

WOMEN

	1991	1992	1993	1994	1995	1996
Chlamydia	275	216	203	206	136	171
Trichomoniasis	101	97	103	116	89	103
Monilia	315	320	271	242	235	243
NSV	633	685	548	551	408	487
Herpes	N/A	N/A	N/A	N/A	N/A	N/A
V. Warts	115	181	195	207	84	73
Scabies	13	11	8	11	17	11
P. Pubis	30	31	29	31	20	17
Totals:	1482	1541	1357	1364	989	1105

Syphilis

In the early 1970s, the rate was about 22 cases/100,000; the current (infectious syphilis) rate is eleven times lower (2 cases per 100,000).

Year	<u>Infectious syphilis</u>	<u>Late syphilis</u>	<u>Total</u>
1973	50	47	97
1974	52	17	69
1975	48	20	68
1976	39	17	56
1977	20	12	32
1978	26	19	45
1979	19	8	27
1980	23	4	27
1981	16	3	19
1982	18	7	25
1983	15	9	24
1984	26	4	30
1985	27	12	39
1986	31	10	41
1987	13	6	19
1988	11	8	19
1989	11	5	16

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1990	14	3	17
1991	29	11	40
1992	13	15	28
1993	18	9	27
1994	9	16	25
1995	7	8	15
1996	9	15	24

STD/HIV and Prostitute Women  
(1970-1996)

Conscientious control measures to control STD among local prostitute women began in June, 1970 with the introduction of mandatory GC and syphilis testing for arrested prostitutes (the so-called "Health Hold Order") and the application of contact tracing and street ethnography. The Health Hold Order was relinquished after a quarter of a century of use, effective 1/1/95 (because positivity rates and other epidemiologic information no longer supported the idea that much transmission of STD or bloodborne infections could be attributed to these women). The 70 percent decline in clinic attendance is attributable in largest measure to abandonment of the Health Hold Order system and in some measure to the declining population of prostitutes locally (by one-third during the 1990s).

As the Table shows, the proportion of positive tests for gonorrhea was typically about 24% during the 1970s, 13% during the 1980s, and 4% (or lower) thereafter. As for chlamydia, the initial yearly prevalence of 6% reached a temporary high of 12% the following year and has stabilized at about 5% since.

The 1996 data indicate that we need to keep a watchful eye on trends, even though the absolute number of cases is not particularly worrisome. We are periodically reviewing police prostitution arrest records (for both prostitutes and their "Johns") to compare these lists with our disease databases.

Note: Chlamydia testing was inaugurated 1 July 1987; in addition, there are fewer chlamydia tests than visits because specimens could not be collected on menstruating patients.

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<u>Year</u>	<u>Original Visits</u> <u>(Number)</u>	<u>Gonorrhea Cases</u> <u># (% Positive)</u>	<u>Chlamydia Cases</u> <u># (% Positive)</u>
1970	105	42 (40.0)	
1971	164	52 (31.7)	
1972	226	53 (23.5)	
1973	154	42 (27.3)	
1974	142	34 (23.9)	
1975	171	51 (29.8)	
1976	341	119 (34.9)	
1977	311	57 (18.3)	
1978	348	32 ( 9.2)	
1979	204	36 (17.6)	
1980	228	21 ( 9.2)	
1981	186	35 (18.8)	
1982	197	27 (13.6)	
1983	214	31 (14.5)	
1984	258	23 ( 8.9)	
1985	254	27 (10.6)	
1986	174	33 (19.0)	
1987	169	19 (11.2)	4 of 66 ( 6.0)
1988	195	21 (10.8)	17 of 138 (12.3)
1989	192	24 (12.5)	15 of 150 (10.0)
1990	157	4 ( 2.5)	9 of 144 ( 6.3)
1991	148	7 ( 4.7)	11 of 148 ( 7.4)
1992	150	4 ( 2.7)	7 of 148 ( 4.7)
1993	114	6 ( 5.2)	3 of 112 ( 2.7)
1994	130	8 ( 6.2)	6 of 127 ( 4.7)
-----			
(Totals for the 25 years of Health Hold Order System):			
	4932	808 (16.4)	72 of 1003 (7.0)
1995	40	0 ( 0.0)	1 of 40 ( 2.5)
1996	48	3 ( 6.3%)	6 of 46 (13.0)
-----			
(Totals since end of Health Hold System: 2 years):			
	88	3 ( 3.4)	7 of 86 ( 8.1)

As for HIV infection (data not shown), 653 women with histories of prostitution (here or elsewhere, currently or formerly) have been tested for HIV at our facilities since the summer of 1985 (when the test became available) and 25 (3.8%) have been positive. The last positive HIV test on such women was 3 years ago (early March 1994). The positivity rate for women who ever practiced prostitution locally (3.2%, or 18 of 564 women) is lower by a factor of two compared to women who practiced elsewhere (7.9%, or 7 of 89). As for risk factors, 21 of the 25 infected women admitted to a history of injecting drug use and 4 didn't (we feel that at least two lied).

Male prostitutes

Until the mid-1980s, male prostitutes were rarely observed in Colorado Springs. Between 1985 and 1994 (a decade) Colorado Springs police arrested 21 male prostitutes (all cross-dressers) on 28 occasions. (We served Health Hold Orders on all.) 3 of the 21 were positive for HIV, one for pharyngeal gonorrhea, and one for infectious syphilis.

Presentations

About 58 formal presentations were recorded, with a total audience of 1761 (excluding radio/television audiences). Thus about one presentation a week, each with an average audience of 30, was done in 1996 -- about half of the previous year's level. Demand for such presentations was highest during the late 1980s and early 1990s, when concern about HIV ("AIDS Hysteria", particularly on the part of heterosexuals and health care workers), was at its peak.

	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>
Total presentations	110	132	127	113
Total audience	3683	6847	5462	5165
Students	45%	38%	56%	39%
Health care workers	23%	23%	20%	25%
Employers	10%	5%	2%	4%
Trainers	10%	16%	7%	3%
General audience	11%	17%	8%	22%
High risk persons	3%	1%	6%	7%
...CONTINUED...	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>
Total presentations	117	128	95	69
Total audience	5065	5358	4778	2334
Students	41.6%	52.8%	46.1%	14%
Health Care Workers	30%	21.1%	37.9%	50.6%
Employers	0.8%	1.7%	0.7%	0
Trainers	3.6%	5.5%	6.2%	5.7%
General audience	14.1%	14.8%	7.7%	25.8%
High risk persons	11%	4.1%	1.4%	3.8%
...CONTINUED...	<u>1995</u>	<u>1996</u>		
Total presentations	101	58		
Total audience	3558	1761		
Students	41%	38.8%		
Health care workers	19.3%	53.1%		
Employers	22.4%	none		
Trainers	1%	4.4%		
General audience	5.7%	3.1%		
High risk persons	11.5%	0.6%		

Summary of medications used  
(1994-1996)

The decline in STD incidence (particularly urethritis in men) is reflected in the amounts of medications, especially doxycycline) dispensed.

<u>STD Clinic</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>
Bicillin (1.2 m.u.)	85 syringes	48	88
Spectinomycin (2g)	22 vials	2	0
Amoxicillin (500mg)	921 capsules	0	0
Benadryl (50mg)	300 capsules	400	0
Erythromycin(250mg)	13476 tablets	10772	7502
Rocephin (250mg)	9 vials	10	8
Doxycycline	32712 capsules	25948	21618 *****
E-Mycin (333)	4610 tablets	0	0
Suprax (440mg)	964 tablets	666	785
Metronidazole(500mg)	4400 tablets	3640	4260
Ofloxacin	182 tablets	274	410
Zithromax	None	None	65

Condom Distribution Program

An active program of condom distribution in high risk settings was initiated in late 1987 (See: *MMWR* of 14 February 1992, pp 94-95, 101). Especially targetted were prostitutes (both genders) on "the stroll" (streets), along with their customers ("Johns"); men patronizing gay bars; and In-(Drug Clinic) and Out-(street outreach)Of-Treatment injecting drug users; and folks affiliated with street (particularly crack-cocaine) gangs. Good records (as opposed to anecdotal guesses or estimates) have been maintained since 1993, when we moved into the new facilities on South Union.

Condoms Distributed: 1993-1996

1993:	50,000
1994:	103,500
1995:	215,000
1996:	247,000

Distribution doubled every year through 1995 and increased modestly during 1996, to about a quarter million condoms (roughly \$ 18,000 wholesale). There is a powerful temporal association between our assertive condom distribution efforts in targetted community settings and the pronounced, sustained declines in all STD/HIV in El Paso County during the 1990s.



PART V

The traditional tables

"You can observe a lot by watching"

Yogi Berra

Reported Gonorrhea Cases, By Month, 1973-1996

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Monthly Average	Annual Total
1973	175	150	102	93	122	122	134	149	188	124	146	93	133	1598
1974	110	79	108	133	138	143	203	198	127	155	101	134	135	1629
1975	133	138	122	145	116	126	191	186	171	124	82	146	140	1680
1976	140	119	154	138	158	155	185	174	246	131	213	165	165	1978
1977	193	117	133	182	161	215	134	193	149	145	212	164	167	1998
1978	134	124	107	128	112	134	119	136	129	137	137	118	126	1515
1979	161	106	97	106	105	117	130	175	166	117	136	109	127	1525
1980	164	149	73	118	109	122	156	170	98	118	126	117	127	1520
1981	117	120	126	118	140	174	137	148	99	144	128	86	128	1537
1982	95	96	98	83	94	127	115	149	118	97	94	97	105	1263
1983	113	97	108	97	87	98	118	110	128	148	90	86	107	1280
1984	96	115	161	127	105	113	153	142	113	133	131	136	127	1525
1985	98	96	98	138	132	127	179	155	127	157	97	126	128	1530
1986	97	96	96	98	94	99	99	148	119	124	97	98	105	1265
1987	79	80	98	93	98	98	99	92	73	67	58	66	83	1001
1988	92	75	72	58	79	79	59	86	86	88	94	58	77	926
1989	56	40	59	75	66	79	77	93	85	81	80	70	72	861
1990	69	35	39	67	76	62	68	97	71	87	85	84	70	840

[illegible]

MONTHLY V.D. CLINIC AND LABORATORY REPORT: EL PASO COUNTY HEALTH DEPARTMENT, 1996

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	CY	POS.	PCT+
TESTING:															
HIV(Ab)	209	196	215	288	211	184	197	160	181	199	171	176	2387	14	0.6
HIV(CUMULATIVE)												23751			
RPR	297	237	347	275	297	245	329	278	282	269	253	227	3336	27	0.8
FTA	2	1	3	4	1	1	1	0	3	1	1	4	22	15	68.2
GC SMEAR	137	108	148	107	121	77	127	144	147	134	153	96	1497	64	4.3
GC CULTURE:															
VDC MEN:	152	119	168	147	150	124	156	137	172	153	141	137	1756	74	4.2
VDC WOMEN:	193	153	175	168	166	143	132	180	183	205	152	142	1992	53	2.7
PNC WOMEN:	38	47	47	48	46	44	34	46	34	43	15	29	471	4	0.9
FPC WOMEN:	50	38	52	41	34	24	35	38	56	162	172	130	832	0	0
CHLAMYDIA: MEN	151	118	157	138	145	128	165	125	173	132	141	127	1700	215	12.6
CHLAMYDIA: WOMEN	189	145	171	168	160	154	195	180	163	185	159	129	1998	171	8.6
CHLAMYDIA TX/EPI	91	60	78	78	64	61	105	90	95	91	96	67	976	N/A	
GC TREAT	10	8	16	6	6	10	18	13	5	11	7	17	127	N/A	
GC PRO-TREAT	17	18	22	20	9	13	18	15	17	17	12	12	190	N/A	
LUES TREAT	2	6	6	6	6	8	0	0	1	4	4	0	43	N/A	
LUES PRO-TREAT	0	0	0	0	1	0	0	0	2	0	2	1	6	N/A	
NON V.D. TREAT	117	106	120	127	136	131	153	107	120	110	102	103	1432	N/A	
CLINIC: NO.	14	12	13	13	14	12	14	13	13	13	12	12	155	N/A	

MONTHLY G.C. INVESTIGATIONS REPORT: EL PASO COUNTY HEALTH DEPARTMENT, 1996

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC CY89 PCT/TL

*Together*
*Together*

CONTACTS TO GONORRHEA: OUTCOME

NOT INFECTED	1	2	0	0	0	0	0		0		0	0	3	0.9
BROUGHT - TX	7	0	2	8	2	3	1		7		9	9	48	14.6
PREVIOUS TX	13	5	8	7	8	2	1		10		4	10	68	20.7
NOT FOUND	6	5	2	1	4	3	0		4		11	7	43	13.1
REFUSED EXAM	1	1	0	0	0	0	0		0		2	0	4	1.2
UNLOCATABLE	6	3	3	0	0	2	0		11		31	5	61	18.6
TRANSFERRED	1	0	0	0	0	0	0		0		0	0	1	0.3
EPI TREATED	19	10	9	4	8	5	2		15		11	17	100	30.5
OTHER	0	0	0	0	0	0	0		0		0	0	0	0
TOTAL	54	26	24	20	22	15	4		47		68	48	328	100

MONTHLY CHLAMYDIA INVESTIGATIONS REPORT: EL PASO COUNTY HEALTH DEPARTMENT, 1996

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC CY89 PCT/TL  
*Together Together*

CONTACTS TO CHLAMYDIA: OUTCOME

NOT INFECTED	2	2	1	0	3	0	0		0		0	1	9	0.9
BROUGHT - TX	8	7	6	5	6	8	6		35		29	15	125	12.1
PREVIOUS TX	12	13	15	11	17	6	0		60		22	26	182	17.6
NOT FOUND	15	17	8	7	12	7	3		41		25	10	145	14.0
REFUSED EXAM	1	6	6	2	2	0	1		10		3	1	32	3.1
UNLOCATABLE	12	12	9	9	8	1	6		45		50	19	171	16.5
TRANSFERRED	1	0	0	0	0	0	0		0		0	0	1	<0.1
EPI TREATED	42	23	28	44	49	13	11		70		57	31	368	35.6
OTHER	1	0	0	0	0	0	0		0		0	0	1	<0.1
TOTAL	94	80	73	78	97	35	27		261		186	103	1034	100

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STUDIES IN PROGRESS

67. *Establishing efficient interview periods for Chlamydia patients.*

68. *Contact tracing and Chlamydia incidence reduction.*

70. *Chlamydia sexual networks and transmission dynamics.*

## Appendix-B 1

### STD/HIV PROGRAMS: PRINTED MEDIA ARTICLES

#### NATIONAL MAGAZINES

U.S. News and World Report. Sex, with care. June 2, 1986, p.55.

U.S. News and World Report. AIDS: At the dawn of fear. January 12, 1987, p.65.

Playboy. A calm look at AIDS. July, 1987, p.162.

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Heterosexuals' risk of AIDS downplayed. The Buffalo News. April 3, 1987.

Fears on heterosexual AIDS risk "exaggerated," expert says. The Atlanta Journal. April 3, 1987.

Heterosexual AIDS. Atlanta Constitution. April 20, 1987, p.1-A.

Colorado Springs hookers consent to AIDS testing. Winfield (Kansas) Daily Courier. June 4, 1987, p.7.

AIDS "contact tracing" gains support. The Philadelphia Inquirer. November 1, 1987, B-1.

Rights vs. duty: Colorado's efforts to trace AIDS victims' contacts. The Washington Post. September 13, 1988, A-3.

Legalize prostitution? How to control problem subject of pointed debate. The Arizona Republic. April 16, 1991, A-8.

Female prostitutes not major source of AIDS. The Palm Beach Post. December 27, 1992.

AIDS patients' partners tracked, informed: Colorado says its program fights spread of disease while protecting privacy. The Boston Globe. February 1, 1993, p.1.

Park Outreach Patrol. USA TODAY 18 July 1996, p.11A

#### REGIONAL NEWSPAPERS

##### ROCKY MOUNTAIN NEWS

Springs tests prostitutes for AIDS virus. April 30, 1986.

## Appendix-B 2

Springs, Atlanta seek prostitutes for AIDS tests. September 3, 1986.

Tracking potential killer in Springs. November 10, 1986, p.7.

Editorial. A quarantine of AIDS carriers should be option in rare cases. November 23, 1986, p. 86.

AIDS study disputes heterosexual risk. March 27, 1987, p.24.

County stuck as prostitute spreads AIDS. January 11, 1990.

### DENVER POST

The myth of heterosexual AIDS. March 1, 1991, p.7-B.

VD busters: gangs help health dept. January 28, 1993, p.1.

Editorial. El Paso County doctors showed creative spirit. February 12, 1993, p.10-B.

### OUTFRONT

Colorado Springs gays consider their potential. March 15, 1985, p.1.

## LOCAL PRESS

### COLORADO SPRINGS SUN

Area gonorrhea rate drops. February 11, 1979.

VD control director honored. July 18, 1979.

Cases of syphilis in County decline. January 28, 1982.

Effort have cut VD risk. August 5, 1984, p.7.

22 percent rise in County VD cases reported. September 13, 1984.

### GAZETTE-TELEGRAPH

Clinic claims VD incidence lower in El Paso County. May 30, 1976.

Prostitution, military linked to high rate of gonorrhea. December 18, 1977.

VD incidence down 25 percent in County. November 11, 1978.



Appendix-B 3

Potterat wins state award. June 21, 1979, p. 7-A.

Officials still learn about herpes. August 20, 1981.

VD expert criticizes crackdown on city prostitutes' customers. June 18, 1981.

County reports drop in number of VD cases. January 28, 1982.

Two AIDS deaths reported in City. June 22, 1983.

Fear of AIDS changes lives of homosexuals. August 22, 1983.

Health risk of sex rises in county. August 31, 1985.

Springs' prostitutes to be part of AIDS study. January 3, 1986.

Test confirm AIDS-like virus in prostitutes: El Paso County health officials document area's first case. November 4, 1986.

"Dr. John" trusted on the street: AIDS infiltrates hookers' world. November 30, 1986, p.1.

AIDS-exposed inmate denied family visits. January 8, 1987.

AIDS victims fear children will get virus. January 10, 1987.

Gonorrhea cases drop in county: health officials credit fear of AIDS. January 29, 1987.

Lawmaker wants victims of AIDS advised, monitored. February 11, 1987, p.1.

AIDS test advice "nonsense", official says: carrier of AIDS arrested, suspected of prostitution. March 20, 1987, B-1.

A brush with infection: dental experts warn of susceptibility to spreading diseases. May 2, 1987, p.1.

Doctors say over-reaction has caused a rush for testing. April 26, 1987.

Legislature sends AIDS bill to Romer. May 22, 1987, B-1.

AIDS complicating treatment of VD, TB. June 19, 1987, B-1.

Spread of AIDS slows drastically: Fewer cases identified in 1987. January 30, 1988, p.1.

Woman hopes to someday have that "middle-class life": AIDS virus just one battle to fight. January 31, 1988, B-1.

#### Appendix-B 4

New virus makes surprise appearance in County: affliction may be transmitted like AIDS. February 2, 1988. p.1.

Answers ease tension about AIDS: fears reminiscent of the polio panic. February 9, 1988, F-1.

AIDS-related illnesses focus of March of Dimes campaign. February 20, 1988, B-1.

El Paso County records 19 new AIDS infections. November 29, 1988, B-1.

Two lesser known venereal diseases increasing rapidly. February 9, 1989.

The forgotten victims: County shows shift in groups being affected. July 30, 1989, p.F-1.

Spring enhances medical care to come to meet expanding need. January 1, 1990, B-2.

Rare viruses found in prostitutes from Newark to Springs. January 5, 1990, B-8.

AIDS in the military. January 7, 1990. F-1.

Publicity about AIDS carriers at issue. July 22, 1990, B-1.

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