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301 South Union Boulevard
Colorado Springs, Colorado 80910

ANNUAL REPORT
Sexually Transmitted Diseases/HIV Programs
January 1, 1997 - December 31, 1997

"All the historical books that contain
no lies are extremely tedious."
-Anatole France

(Corollary: An extremely tedious report -
like this one - thus contains no lies!)

"He who laughs, lasts."
Mary Poole (1938)

INTRODUCTION

This Report is a compendium of boring sequences of numbers and percentages; these will induce sleep in even the most motivated reader. (Although numbers give reports rigor, they also induce mortis!) It is intended as a comprehensive repository of program data and trends spanning two and a half decades, not simply as a summary of 1997 accomplishments (and, alas, shortcomings). It should be used as a rear view mirror: to know where you're going, it helps to know where you've been. Comments, criticisms or suggestions are welcome (To: John Potterat [719] 575-8608 or e-mail: smuth@rmi.net)

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PART I
Chlamydia control

A Brief History

Formal chlamydia control began in the mid-1980s, with the availability of affordable antigen tests; these were used on a pilot basis starting in mid-1987. During 1988, we inaugurated formal contact tracing efforts and targetted screening. By mid-1995, we were able to both increase contact tracing staff AND to implement use of a new generation of tests, based on polymerase chain reaction (PCR) technology. Starting 1 July 1996, we implemented PCR testing in health department clinics that screen for chlamydia. Enhanced diagnostic accuracy and contact tracing are the two factors seemingly responsible for the increase in reported chlamydia cases during 1997.

The Table below supports this idea: the medical venues registering increases 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. Despite appearances, we feel that chlamydia prevalence is truly 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. Our prediction is that when the "masking effect" wears off, chlamydia morbidity will decline suddenly and substantially.

Lastly, not only are superior tests identifying more cases but so are enhanced contact tracing (up 76% in 1996-1997 over 1994-1995) and screening efforts (e.g., Zebulon Pike Detention Center screening - last line item in Table below). In a word, we feel that the notable recent increase in reported chlamydia cases is artifactual and does not indicate increased transmission in the community.

1997 Laboratory reported chlamydia cases (vs 1996 & 1995)
(All Report Sources)

	<u>Men</u>	<u>Women</u>	<u>1997</u> <u>Total (%)</u>	<u>1996</u> <u>Total (%)</u>	<u>1995</u> <u>Total (%)</u>
Private providers	40	210	250 (18.3)	238 (19.8)	332 (27.1)
STD Clinic	261	199	460 (33.7)	385 (32.0)	313 (25.6)
FPC/PNC/CHC*		229	229 (16.8)	219 (18.2)	177 (14.5)
Planned Parenthood		17	17 (1.2)	40 (3.3)	52 (4.3)
Ft. Carson	158	164	322 (23.6)	276 (22.9)	284 (23.2)
Air Force	7	28	35 (2.6)	46 (3.8)	60 (4.9)
Zeb Pike/Detention	25	29	54 (4.0)	N/A	N/A
<hr/>					
Total	491	876	1367 (100)	1204 (100)	1223 (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 (excludes private sector cases) during 1997 by one-third (from 707 cases to 942).

Chlamydia cases by selected report source and gender
1988-1997 (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/A
1990	195	443	213	222	151(both)		1224
1991	253	436	288	256	118(both)		1351
Mandatory reporting begins...							
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
1997	261	324	158	164	7	28	942

Trends in health department clinics other than the STD Clinic have been fairly stable since about 1992. (Note: The last column on the right conceals the consistently high positivity rate in pregnant folks: Of 176 tests in prenatal clinic during 1997, 15 (8.5 %) were positive - an uncomfortably high rate that has been consistently about twice as high as that observed in Family Planning Clinic since 1992.)

Chlamydia screening in Women's Clinics
(1988-1997)

<u>Year</u>	<u>Family Planning</u>		<u>Prenatal & PAP</u>	
	<u>Tests</u>	<u>Pos.(%)</u>	<u>Tests</u>	<u>Pos.(%)</u>
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)
1997	1753	82 (4.7)	418	16 (3.8)

** Only high-risk clients were tested in 1989

Chlamydia cases in VD Clinic

The following Table suggests the impact of both superior testing technology (mid-1996) and enhanced contact tracing efforts (mid-1995). Although, for example, 1993 and 1997 are virtually identical, we presume that there were many undetected cases during 1993 because the tests were much less sensitive than the ones used during 1997. The trend for the last 3 years suggest a 33% increase in the positivity rate for women and a 60% increase for men. Most of this increase is attributable to PCR testing and much, to enhanced contact tracing (see next section).

Chlamydia cases in VD Clinic
(1988-1997)

	<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)

CONTINUED...

	<u>1997</u>	
	<u>Tests</u>	<u>Pos (%)</u>
Men	1759	251 (14.3)
Women	1907	208 (10.9)
Total	3666	459 (12.5)

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 comprise STD, Family Planning, and Prenatal, Clinic patients (where the data are reliable).

Notice the improvement in the proportion (and numbers!) of cases in men identified as a consequence of contact tracing; this proportion is generally between a quarter and a third; during the last 2 years, it's been about one half. This is not the same for women, for two reasons: 1) since diagnosed cases in women outnumber those in men by a (nearly) 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.

Importantly, the steep decline in men "volunteer" cases argues for declining incidence (volunteers are usually freshly infected, symptomatic males), as opposed to prevalence (screenees and contacts, both of whom tend to be "silently" [asymptomatically] infected).

Chlamydia Cases: reason for presentation

(All H.D. Clinics, 1988-1997)

MEN Reason	1988	1989	1990	1991
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...

	1992	1993	1994	1995
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...

	1996	1997
Volunteer	89 (40.3%)	95 (33.5%)
Screen	18 (8.1%)	46 (16.2%)
Contact	114 (51.6%)	143 (50.4%)
	-----	-----
	221 (100%)	284 (100%)

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WOMEN		1988	1989	1990	1991
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%)
		<hr/>			
		268 (100%)	217 (100%)	443 (100%)	436 (100%)

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

WOMEN: CONTINUED...		1996	1997
Volunteer/			
Screen		209 (75.2%)	247 (74%)
Contact		69 (24.8%)	87 (26%)
		<hr/>	
		278 (100%)	334 (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 (874/1926) of STD Clinic women with chlamydia had their disease detected as a consequence of contact tracing between 1988 and 1997.

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

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

...CONTINUED...

	<u>1996</u>	<u>1997</u>
Volunteer/ Screen	91 (56.9%)	110 (56.4%)
Contact	69 (43.1%)	85 (43.6%)
	-----	-----
	160 (100%)	195 (100%)

Chlamydia contact interviews

We have interviewed 5303 *civilian* cases of chlamydia in the last 10 years, and obtained 9055 contacts, with a consistent contact index of about 1.7 for both men and women. During 1996-1997, we were able to interview virtually double (1.8 times) the number of *civilian* cases interviewed the previous 2 years (and to double the number of contacts elicited!) thanks to the assignment of additional case-interviewing staff (obtained in mid-1995).

	<u>1988</u>		<u>1989</u>		<u>1990</u>	
	<u>No.</u>	<u>Contacts</u>	<u>No.</u>	<u>Contacts</u>	<u>No.</u>	<u>Contacts</u>
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...

	<u>1991</u>		<u>1992</u>		<u>1993</u>	
	<u>No.</u>	<u>Contacts</u>	<u>No.</u>	<u>Contacts</u>	<u>No.</u>	<u>Contacts</u>
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...

	<u>1994</u>		<u>1995</u>		<u>1996</u>	
	<u>No.</u>	<u>Contacts</u>	<u>No.</u>	<u>Contacts</u>	<u>No.</u>	<u>Contacts</u>
Men	144	223 (1.55)	107	162 (1.51)	213	379 (1.78)
Women	287	499 (1.74)	288	461 (1.6)	569	1047 (1.84)
Total	431	722 (1.68)	395	623 (1.58)	782	1426 (1.82)

CONTINUED...

1997No. Contacts

Men	239	433 (1.8)
Women	433	764 (1.76)

Total	672	1197 (1.78)

Fort Carson's Preventive Medicine folks have been doing an increasingly better job of interviewing their chlamydia cases starting (as we did) in 1988. For 1997, they interviewed nearly every diagnosed case - an astonishing feat. (Fort Carson folks: you guys did real good; how can you get any gooder, since you're already goodest? Maybe you can work on improving our grammar!)

Proportion of chlamydia cases interviewed
(Fort Carson)

	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>
Reported	447	552	435	544	566	541	481	284	276	322
Interviewed	65%	63%	90%	77%	85%	88%	93%	91%	95%	98%

Thus, they have reported 4448 cases since 1988 and have interviewed four-fifths (3628/4448).

Chlamydia contact tracing

Intensified contact tracing during 1996-7 doubled the number of named sexual partners sought locally. (The increase in partners "not examined is artifactual: from July 1996 thru December 1997, as part of an effort to define the "interview" (infectious) periods for various categories of chlamydia patients, distant (historical) sexual partners were sought to more firmly establish the upper bounds of such interview ("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. Also: note the substantial increase in newly identified infected cases since 1994-1995. Note, as well, the improved ratio among contacts who were actually examined ("infected" and "not infected" categories: superior diagnostic tests starting in mid-1996 reduced the "not infected" versus "infected" ratio from about 3.7 during 1994-1995 to 1.5 during 1996-1997. What this means is that when you DO locate a contact and offer them testing with superior tests, the outcome is likelier to be accurate ("infected") than inaccurate ("not infected").

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...

	<u>1996</u>	<u>1997</u>
Infected (New cases)	204 (16.2)	221 (19.4)
Not infected	386 (30.7)	267 (23.4)
Not examined	668 (53.1)	654 (57.3)
	1258 (100)	1142 (100)

Thus, 8158 contacts have been sought locally in 10 years, of whom 1495 (18.3%) were newly identified cases; 4026 others were treated preventively but had negative tests.

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 stable (in the high thirties), absolute numbers of cases in teens are *probably* declining. (We surmise that the 18% increase between 1996 and 1997 is really artifactual and reflects 1) superior tests, 2) enhanced contact tracing and 3) increased screening (especially at Zeb Pike Center) among teens.

<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)
1997	1367	526 (38.5)

Part II

HUMAN IMMUNODEFICIENCY VIRUS INFECTION

In El Paso County, the news about HIV is very good: not only are those who are infected dying at a dramatically lower rate than heretofore, but fewer and fewer people are getting infected each year. The combination of "miracle drugs" with improved (behavioral) self-defense by folks with high-risk profiles (men who have sex with men and drug injectors) have contributed heavily to the reductions in new transmission and death we are (happily) reporting.

We record a nearly 70% drop in HIV/AIDS deaths locally - from about 1 per week to 1 every third week (see Table below). We surmise two reasons: a survivor effect and powerful new medications, especially protease inhibitors. In brief, "survivor effect" refers to a phenomenon common in epidemics: those whose immune defenses are effective tend to survive longer, while those with less effective 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 late 1995, we show 1995-present data:

AIDS Deaths in El Paso County (by semester)

First 6 months 1995:	29
Second 6 months 1995:	25
First 6 months 1996:	20
Second 6 months 1996:	10
First 6 months 1997:	10
Second 6 months 1997:	9

This phenomenon - retarding death - is reflected in CD-4 count gains during the 1990s. (The data are soft in that not all HIV carriers are CD-4 tested and, of those tested locally, obligatory reporting did not start until mid-1993.) The table below shows the mean CD-4 count as of the end of the reporting year for those "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 intermediate between gay men and IDU (We have CD-4 counts on 40-45% of all living patients each year.)

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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, 1992-1997)

<u>Year</u>	<u>Gay Men</u>	<u>Injectors</u>
1992	211	254
1993	234	280
1994	261	291
1995	280	331
1996	287	367
1997	305	380

How much the observed increasing gradient is accounted for by a survivor effect and how much by anti-HIV medications is not known (we love the trend!). The steeper increase in CD-4 counts by injectors is notable (and puzzling, since injectors are putatively less likely to access anti-HIV medications). Although injectors may have higher counts because they, as a population, were infected later than gay men, it may not explain the widening gulf between the two populations: in 1992, the difference was about 43 (254 minus 211) and by 1996-1997, about 80, or about twice as much.

Only about half (54%) of the 353 persons (for whom we have CD4 data) and not known to be dead as of the end of 1997 have counts below 200 - the initial point of life-threatening infections levels. This is a significant improvement over previous years. If we look only at the proportion of people not known to be dead at the end of each year who had low counts, we see an encouraging trend:

<u>Year</u>	<u>Percent with Fewer than 200 Cells</u>
1992	72
1993	70
1994	66
1995	59
1996	59
1997	56

AIDS proper: a brief profile

At least 682 adults with full-blown AIDS have lived in the Pikes Peak region since the first reported case in August 1982. Three-fifths are known to be dead. Nearly equal numbers of cases have been counted locally (367) compared to those diagnosed elsewhere (315) who moved (and were reported) here after their AIDS diagnosis.

Note: all data in this Report refer to *adult* HIV/AIDS cases. Pediatric cases (N= 15) 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)	1	1	(100)	8	8	(100)
1986	12	11	(92)	8	4	(50)	20	15	(75)
1987	9	9	(100)	12	12	(100)	21	21	(100)
1988	25	23	(92)	12	9	(75)	37	32	(87)
1989	32	30	(94)	32	28	(88)	64	58	(91)
1990	33	30	(91)	28	17	(61)	51	47	(92)
1991	32	27	(84)	32	21	(66)	64	48	(75)
1992	28	17	(61)	56	34	(61)	84	51	(61)
1993	46	21	(46)	46	31	(67)	92	52	(57)
1994	49	26	(53)	43	17	(40)	92	43	(47)
1995	43	16	(37)	29	6	(21)	72	22	(31)
1996	34	6	(18)	10	2	(20)	44	8	(18)
1997	13	1	(8)	2	0	(0)	15	1	(7)
Ttl:	367	228	(62)	315	186	(59)	682	414	(61)

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

Thus, more than half of all adult HIV cases (N=1206) have so far progressed to AIDS (682/1206= 57%). The change in the AIDS definition (in 1993) has served to swell our AIDS counts by one-fifth. Overall, during 1993-7, 142 HIV cases were newly classified as AIDS by the new definition.

Percentage of Adult HIV Cases Having Progressed to AIDS

1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
14	11	18	20	21	26	29	38	42	51	53	57

HIV/AIDS cases by age at report and clinical status
(1982-1997)

It is instructive to examine the data by 1) age at report and by 2) age at clinical diagnosis. (The numbers in parentheses in the Table below represent the AIDS subset. Thus, for example, 51 (38) 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 actual year in which the person died.

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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.

<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	30.6	7.4	51 (38)	8
1986	30.1	8.5	129 (77)	9
1987	29.7	7.8	93 (57)	11
1988	32.7	10.7	101 (60)	31
1989	32.0	9.8	96 (54)	18
1990	32.4	9.8	99 (62)	37
1991	32.4	8.7	84 (47)	48
1992	33.2	9.3	98 (60)	50
1993	32.6	7.1	98 (58)	48
1994	33.6	7.0	111 (56)	56
1995	36.5	9.6	80 (41)	65
1996	36.8	9.8	100 (56)	34
1997	34.6	9.0	66 (16)	23

Total			1206 (682)	438*

* Of the 438 deaths, 92% occurred in AIDS patients and 8% in AIDS-free HIV persons (with death due to causes other than HIV). More than one-third of all adults with HIV are known to be dead (438/1206, or 36.3%) as of 12/31/97.

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 roughly 100 persons with HIV have been reported each year since 1986. The notable decline observed during 1997 supports the idea of a (rapidly?) declining epidemic.

HIV/AIDS cases by age at first diagnosis (1982-1997)

<u>Year Diagnosed</u>	<u>Mean age</u>	<u>S.D.</u>	<u>All HIV/AIDS Cases</u>
1982-85	30.6	8.0	102
1986	29.5	8.1	161
1987	29.2	7.4	126
1988	32.3	10.5	123
1989	31.0	9.6	121
1990	31.1	8.5	121
1991	31.8	8.9	96
1992	32.0	8.4	80
1993	30.3	6.7	58
1994	33.7	7.4	73
1995	36.2	11.4	57
1996	36.8	10.9	51
1997	33.2	9.7	33

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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 neither support the idea of 1) lots of folks nor 2) lots of young people newly becoming infected. To record only 33 new diagnoses in 1997 is remarkable (and elegant evidence that implosion is occurring).

Miscellaneous age chronology data

In El Paso County, the mean age at acquisition of HIV is probably 29.0 years (based on data from 154 seroconverters); the mean age of those not known to have proceeded to AIDS or to have died is 36.7 (N= 497); the average age at AIDS is 35.4 (N= 682) and at death, 37.6 years (N= 438). The fact that 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. (This encouraging change was first noted in 1996, the first time since 1988, when we started keeping track of such trends.)

HIV/AIDS Cases (N= 1206) By Ethnicity

Until recently, there were too few HIV/AIDS cases in minorities to attempt meaningful comparisons by sex, risk category, and HIV stage (asking detailed questions produced cells with small numbers). Although the cumulative numbers are now large enough for men, this is still not the case for women (thus: please interpret data concerning women with appropriate circumspection).

HIV/AIDS Cases in MEN By Ethnicity and Disease Stage

<u>Ethnicity</u>	<u>AIDS</u>	<u>HIV (AIDS-Free)</u>
White	75.2%	65%
African American	12.6%	20%
Hispanic/Other	12.2%	15%

We thus infer that HIV infection is moving into minority populations (as it is nationally), since AIDS-free HIV infection presumably represents later virus acquisition, while AIDS presumably represents earlier acquisition. The shift is less pronounced among men classified as Hispanic/Other than it is among African Americans - a shift that is even more dramatic among women with HIV/AIDS: while the HIV/AIDS burden among white women is stable by disease stage, that among Hispanic/Other women drops sharply, the "balance" of which is accounted for by the increase among African American women.

HIV/AIDS Cases in WOMEN By Ethnicity and Disease Stage

<u>Ethnicity</u>	<u>AIDS</u>	<u>HIV (AIDS-Free)</u>
White	59.7%	60%
African American	25.8%	32.5%
Hispanic/Other	14.5%	7.5%

If we examine cases by risk category and ethnicity, we see that whites are likelier to report male homosexuality as a risk factor, while non-white heterosexuals are likelier to report injecting drug use.

HIV/AIDS Cases in MEN By Ethnicity and Risk Category

<u>Risk</u>	<u>White</u>	<u>African American</u>	<u>Hispanic/Other</u>
Gay/Bisexual	72%	58%	73.8%
Injecting Drugs (Gay)	16.5%	15.3%	9.8%
Injecting Drugs (Hetero)	8%	19.8%	16.4%
"Hetero" Sex	1%	5.3%	None
Transfusion	2.5%	1.5%	None

Male homosexuality and injecting drug use continue to account for the vast majority of HIV/AIDS cases; yet a modest shift towards a greater proportion being contributed by (heterosexual) injecting drug use is noted. (This shift is also closely associated with the shift towards greater representation by minorities noted above, especially for men.) Remember that we view AIDS as representing "old" transmission, while we view HIV as "fresher" transmission. Note that the proportion accounted for by homosexuality or by injecting drug use is the same (only an inverse switch has occurred between gay and heterosexual injectors).

Risk Category By Stage of Disease: MEN

<u>Risk</u>	<u>AIDS</u>	<u>HIV (AIDS-Free)</u>
Gay/Bisexuality	70.4%	72.4%
Injecting Drug (Gay)	17.6%	10.3%
Injecting Drug (Hetero)	9.6%	15.6%
"Hetero" Sex	0.3%	0.5%
Transfusion	2.1%	1.1%

Risk Category By Stage of Disease: WOMEN

If we examine risk "over time" in women, we note a dramatic increase in women reporting injecting drug use. Since women injectors tend to shoot drugs with heterosexual injectors, this observation dovetails nicely with the (above) observation of the increasing proportion of HIV among heterosexual male injectors:

<u>Risk</u>	<u>AIDS</u>	<u>HIV (AIDS-Free)</u>
Injecting Drug Use	53.3%	72.3%
Sex	38.3%	23.1%
Transfusion	8.3%	4.6%

We thus seem to have two major transmission universes: 1) networks involving men who have sex with men and 2) networks of heterosexual injectors. As a risk factor, heterosexual sex (whatever that means) is either poorly represented (MEN) or proportionally declining (WOMEN).

Note on the above Tables concerning risk factors:

There are 72, or 6% of the total 1206 cases, for which no risk factor information is available. In addition, for about 84 (or 7%) cases, we use "suspected" (rather than "admitted" or "known") risk factor. In defense of this practice, we note that there are few differences in socio-demographic or geographic descriptors between those with reliably known risk factors and those we infer from epidemiologic information. Thus, there is some fuzz surrounding the above risk factor data...but it's really minor astigmatism.

HIV/AIDS Control Program

This program consists of two parts: the Counseling/Testing site (CTS) 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 (1982-1997)

The following represents the distribution of adults with HIV (including full-blown AIDS cases) reported, and where they were first identified. Note that nearly four-fifths are detected outside of health department clinics. In recent years, the 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.)	204 (16.9)	191	13
2. S.T.D. Clinic	53 (4.4)	39	14
3. Prostitution arrest	9 (0.8)	1	8
4. Drug Clinic	5 (0.4)	3	2
5. Donor centers	147 (12.2)	133	14
6. Military*	138 (11.4)	127	11
7. Doctors/hospitals/other	650 (53.9)	570	80

Total:	1206 (100)	1064(88%)	130(12%)

* Actually, military doctors have reported 204 cases, of whom 138 are/were on active duty at time of report and 66 are/were retired or dependents...the latter are lumped in category #7 above.

HIV infection by reason for presentation

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: how did the HIV-infected person *initially* find out about his infection status ("Reason for presentation")? These data are based on the 1062 (88% of cases) with known information.

...viewed annually (percentages):

Reason	Thru 1986	1987	1988	1989	1990	1991	1992	1993	1994
Volunteer	23.6	19.4	12.8	16.5	21.6	11.6	16.2	17.3	12.5
Screen	64.0	75.9	78.9	75.7	64.7	78.0	76.5	67.3	71.9
Contact	12.4	4.6	8.3	7.8	14.7	10.5	7.4	15.4	15.6

100 percent

...CONTINUED...

	1995	1996	1997	Total persons (%)
Volunteer	19.6	23.4	14.8	194 (18.3%)
Screen	69.6	63.8	66.7	752 (70.8%)
Contact	10.9	12.8	18.5	116 (10.9%)

Note that, overall (1982-1997), every 10th case is detected as a consequence of contact tracing, 70% as screenees, and about 18% as volunteers. (Data based on 1062 of the 1206 [88%] total HIV/AIDS cases for which data are known.)

HIV contact interviews (1985-1997)

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've successfully conducted such "partner notification" (contact tracing) interviews on positive clients since the late fall of 1985.

Declining numbers of persons with a first diagnosis of HIV also means that fewer persons receive formal contact interviews. 1995 was a lousy year: we got involved with the process of community planning (CWT, or Coloradoans Working Together) and were not able to interview many cases. We have since caught up (after obtaining adequate staffing in 1996). Please note the spectacular contact index recorded for 1997 (mostly Tammy Maldonado's work).

Year	No. Interviews	No. Contacts	Contact Index
1982	1	2	2.0
1985*	14	34	2.4
1986	90	158	1.8
1987	47	82	1.7
1988	57	132	2.3
1989	61	128	2.1
1990	65	133	2.1
1991	49	97	2.0
1992	52	87	1.7
1993	44	75	1.7
1994	55	93	1.7
1995	23	40	1.7
1996	37	78	2.1
1997	32	123	3.8
Ttl:	627	1262	2.0

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

There are many reasons for our not having conducted contact-interviewing on 579 cases (1206 adult cases ever reported; 627 interviewed by us). The vast majority not interviewed were not successfully located (N=164 cases), or were not eligible for contact interview (N=354) because counseled or interviewed in the jurisdiction of original diagnosis, or we botched the opportunity (N= 28), or the client refused (N=15). Lastly, some cases are in progress (N=18).

Thus our Program has interviewed three-quarters of all *eligible* HIV/AIDS cases (627/834) or *ninety-six percent* (627/655) of those located (the most flattering way to look at the data; we love flattery!)

About one-fifth (130/627) of interviewed cases name no identifiable partners and roughly one-third (233/627) name only one; about 40% (264/627) name two or more partners (range 2-18).

HIV seroconverters

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 face of the epidemic, so seroconverters represent the new - hence their importance as sentinel cases.

Seroconverters by year of conversion

<u>Year</u>	<u>Civilians</u>	<u>Military</u>	<u>Total</u>
1981	1	0	1
1982...	1	0	1
1986	9	1	10
1987	7	2	9
1988	10	3	13
1989	11	3	14
1990	10	8	18
1991	14	5	19
1992	9	6	15
1993	12	6	18
1994	9	5	14
1995	9	3	12
1996	4	3	7
1997	3	0	3

Ttl:	109 (71%)	45 (29%)	154 (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 are newly positive are repatriated from overseas; when repatriated locally, they're reported to us. Three-quarters of military seroconversions occur

in soldiers (as opposed to air force, navy, or marine personnel.)

Seroconverters are not very young, contrary to the propaganda in media reports; the average (mean) age at seroconversion is 29.0 years (Range 17 to 57 yrs). Only five of the 154 seroconverters are teens: 17 years old (one) and 19 (four). 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: it's always very late twenties.)

Through the 1980s, seroconverters tended to be men; only two (4%) of 48 seroconverters were women. During the 1990s, women have been catching up: 9 of 106 (8.5%) recent converters are women. Half (5/9) of these women report injecting drugs, while almost all of the men (95.5%) are 1) men who have sex with other men (86.4%) or 2) gay-IDU (9.1%); only 3.4% report being heterosexual IDU. Whatever new transmission has been occurring locally seems to be occurring predominantly in homosexual socio-sexual-drug networks, and a much lesser amount within heterosexual injector networks.

Health Department HIV antibody testing (1985-1997)

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 25,751 specimens for testing since mid-1985; 2014 were done in 1997, about a 15% decline over 1995-1996. Demand for testing is declining, along with the epidemic.

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. (These are first tests and therefore exclude repeat testing.) The trend is: high risk (gay) men seek testing (1985-1990), followed by increasing numbers of heterosexuals (particularly women), starting in the late 1980s. Then came Magic Johnson's revelation in the late fall of 1991, which deeply affected attendance levels for about 2 years (1992-1993). Then followed a period of sustained concern by heterosexuals, but at much lower levels (1994-1996). The 30% decline in CTS presentations may well be attributed to the good news about the epidemic that comprise the opening remarks of this HIV/AIDS report.

HIV testing in the CTS: 1985-1997

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Tests	191	322	732	757	675	801	1284	2056	1726	1342
# positive	25	52	22	13	22	32	13	13	19	14
% positive	13	16	3	1.7	3.3	4	1	0.6	1.1	1

...CONTINUED...

	<u>1995</u>	<u>1996</u>	<u>1997</u>
Tests	1374	1328	926
No. positive	11	14	7
% positive	0.8	1	0.8

Thus, 13,514 tests in CTS yielded 257 positives (1.9%) in the 12.5 years since the test became available (July 1985 - hence 1985 contains a half year of data); the CTS alone has served to identify only 1 positive per month for the last 10 years.

In the STD Clinic proper, we see that while the number of folks accepting testing increased appreciably since 1987, the positivity rate has steadily declined. (All positive persons revealed recognized risk factors.) Overall, 5775 tests have been collected in STD Clinic, with 45 positives identified (less than 1%). As for the Drug Clinic (McMaster's), nearly 700 tests have been collected since 1985, with 5 positives being identified (5/679 - or 0.7% - also less than 1%).

HIV (Ab) testing in STD Clinic
(1985-1997)

	<u>1985-86</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
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

<u>CONTINUED...</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>
No. of Tests	673	649	550	698
No. Positive	3	3	1	1
Percent Pos.	0.4	0.5	0.2	0.1

AIDS-virus infection in children:

Since the beginning of the epidemic, 15 children have been reported to us as being AIDS-virus infected; half are known to be alive, virtually all of whom are recently diagnosed (since 1993).

"Age" means age at diagnosis, not current age. (Their CTS # are, in sequence: 1163, 2369, 4505, 6044, 7278, 10027, 10423, 10746, 11338, 13682, 14909, 17103, 17292, 17438 and 19573.)

(IDU = injecting drug user)

<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)	1991
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
Female	Newborn	Alive	Inf. mother (IDU); birth	1997

* Attending school locally (age 12 as of 1997)

(Funny how there's about an equal number of males and females, yet the gender distribution clusters at the beginning (males) and at the end (females) of the Table!)

Passive maternal HIV antibody (not virus) transfer:

We also have records on 19 newborns whose mothers had HIV during their pregnancy. Of the 19, two are (temporarily) lost to follow-up (ATS # 8129 and 10789), while the other 17 are not infected (CTS # 1016, 3105, 4307, 6093, 8044, 8795, 11675, 13278, 13468, 15150, 15240, 15241, 17418, 17424, 18714, 19582, and 19583).

One was born in 1980, 1 in 1987, 1 in 1988, 4 in 1991, 4 in 1992, 1 in 1993, 3 in 1994, 1 in 1995, 1 in 1996, and 2 in 1997.

Part III
Gonorrhea control

We report 319 cases of gonorrhea for calendar 1997, a slight decline over 1996 - yet still 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, or the 3rd Table below: "Gonorrhea in Teens") and attack rate on record, as shown below.

Gonorrhea case rates per 100,000

(Assumes a 1997 population of about 474,000) The current rate is 90% lower than during the peak years of the epidemic (mid-1970s).

<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	<u>1985</u> 420
CONTINUED...		<u>1986</u> 333		<u>1987</u> 255		<u>1988</u> 232	<u>1989</u> 213	<u>1990</u> 208	<u>1991</u> 192	<u>1992</u> 155	
CONTINUED...		<u>1993</u> 125		<u>1994</u> 186		<u>1995</u> 106	<u>1996</u> 70	<u>1997</u> 68			

Contact interviewing activity
(1977-1997)

For the 4th year in a row, contact interviewing and contact tracing indices for gonorrhea have been of *acceptable* quality (as opposed to *stellar* - as has long been our tradition): our Report Card should read somewhere between C+ and B-. The blame rests squarely on the shoulders of the Colorado Department of Health's bureaucracy, which controls the State employee assigned to work most of El Paso County's gonorrhea cases. That only four-fifths of GC cases are offered interviewing and contact tracing services when our burden is so modest (about 200 civilian cases) is inexcusable as well as embarrassing to our program (we customarily interviewed 90% of all reported GC cases in years when we recorded more than 1500 cases).

'77-'79 '80-'82 1983 1984 1985 1986 1987 1988 1989 1990
(Averages)

Interviewed	70%	//	93%	//	97%	94%	89%	90%	91%	90%	90%	93%
Contact/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>	<u>1997</u>			
Interviewed	95.2%		92.1%		89.2%	73.6%	81.0%	85.5%	81.5%			
Contact/Case	1.73		1.81		1.55	1.52	1.54	1.61	1.53			

Gonorrhea contact tracing (1980-1997)

Only 52 gonorrhea cases were newly identified as a consequence of contact tracing during 1997. Our concern is the high percentage of contacts not examined (36%). Ordinarily, the proportion of contacts not examined fluctuates between 20% and 30%. Part of this difference can be attributed to the nature of partner selection in the socio-sexual circles of people currently acquiring GC; these may be folks the fabric of whose lives is so turbulent as to make contact tracing more difficult. The more important part reflects poorer-quality gonorrhea contact tracing efforts.

	<u>Local contacts to gonorrhea:</u>		<u>Outcomes</u>	
	<u>1980-1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
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...	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
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...	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
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%)

...CONTINUED...	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>
New cases	157 (33.1%)	78 (22.5%)	54 (22.5%)	52 (27.5%)
Not infected	152 (32.1%)	143 (41.2%)	93 (38.8%)	69 (36.5%)
Not examined	165 (34.8%)	126 (36.3%)	93 (38.8%)	68 (36.0%)
Total sought	474 (100%)	347 (100%)	240 (100%)	189 (100%)

Gonorrhea case distribution
(1987-1997)

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>	<u>1997</u>	
Civilian	326 (67.4%)	236 (69.0%)	225 (70.5%)	
Fort Carson	152 (31.4%)	102 (29.8%)	83 (26.0%)	
USAF	6 (1.2%)	4 (1.2%)	11 (3.5%)	
Total:	484	342	319	

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 four years, a notable decline has occurred; the military now accounts for about a 30% percent of cases, with Fort Carson only reporting a quarter of all cases (as opposed to nearly half in 1990, for example).

The proportion and number of gonorrhea cases accounted for by teens continues to decline - substantially during 1997, both numerically and proportionally. The trend is especially encouraging because it implies non-white teens are paying attention to safer sex messages (most gonorrhea cases occur in the socio-sexual networks of non-white young people - locally and nationally).

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)
1997	319	53 (16.6)

Gonorrhea: Reason for Presentation (Epidemiologic category)

The following data reinforce the observation that GC case-finding efforts during 1994-1997 have not been optimal: volunteers are currently about 60% 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%)
			<u>1994</u>
Volunteer			409 (52.9%)
"Screenee"			148 (19.1%)
Contact			216 (28%)
Total cases			773 (100%)

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...CONTINUED...	1995	1996	1997
Volunteer	292 (60.3%)	212 (61.9%)	192 (60.3%)
"Screenee"	72 (14.9%)	43 (12.5%)	49 (15.3%)
Contact	120 (24.8%)	87 (25.6%)	78 (24.3%)
Total cases	484 (100%)	342 (100%)	319 (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	1997
Volunteer	54.9	54.2	52.0	52.9	60.3	61.9	60.3
"Screenee"	15.7	16.8	24.2	19.1	14.9	12.5	15.3
Contact	29.4	29	23.8	28	24.8	25.6	24.3

Gonococcal pelvic inflammatory disease

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

	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	1997		
Cases	71	44	73	67	37	48		
Percent	25	21.3	20.2	29.8	23.9	30.6		

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.

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<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
1997	27	162	16.7

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
1997	11	7.0

In terms of bodies, only 11 persons (8 men) were repeaters in 1997; none had more than 2 episodes (the first time on record that no one had more than 2 infections in 1 year). These 11 persons generated only 22 cases in all.

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Gonorrhea cases in African-Americans

More than three-fifths of all GC cases affect African-Americans, although the actual numbers have declined notably since the mid-1980s.

	<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>	<u>1997</u>
Number	381	326	484	288	194	204
Percent	(60)	(63)	(66)	(61)	(60)	(64)

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%
1997	1.2%

PPNG (penicillinase-producing N. gonorrhoeae) cases:

During 1997 we recorded 21 cases of PPNG (25 during 1996). The secular trend is mildly disturbing in that the *proportion* of gonorrhea cases being diagnosed as PPNG has increased considerably during the the 1990s, being highest during 1996 (7.3%) and 1997 (6.6%). Although overall (since PPNG was first discovered in 1976) only 254 of 24,412 GC cases diagnosed locally have been PPNG (1%), distribution by (roughly) ten year interval shows that the *proportion* has increased at least six-fold:

PPNG By 11-Year Period

	<u>PPNG Cases</u>	<u>Total Gonorrhea</u>	<u>Percentage of all GC</u>
1976-1986:	63	16,939	0.37%
1987-1997:	201	8,419	2.39% !!

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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	<u>1997</u> 21					
(1.8)	(0.8)	(7.3)	(6.6)					

Male-to-female ratio: Gonorrhea

This ratio is hovering at all-time low levels (now at virtual 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
1997	162	157	1.03:1

Part V: Other STD Program data/miscellaneousZebulon Pike Juvenile Detention Center: Screening Program

As part of our effort to concentrate STD control resources on high-risk populations, we initiated an STD screening program at our local juvenile detention center in April 1997. Screening occurs on 3 Thursday afternoons each month. During 1997 (April-December), 24 clinic sessions (staffed by our nurse practitioner and an assistant, who does contact interviews and safer sex counseling) were held and 372 visits were recorded (ratio: 3.3 male: 1 female), for an average of nearly 16 visits/session. An astonishing 50 cases of reportable STD were diagnosed (13.4% of visits yield a positive test - a higher proportion than our STD Clinic populations!) Lastly, 89 HIV-antibody tests were done, (mercifully) none of which was positive.

Zeb. Pike Gonorrhea & Chlamydia Screening

	<u>Males</u>		<u>Females</u>	
	<u>Tests</u>	<u>Pos. (%)</u>	<u>Tests</u>	<u>Pos. (%)</u>
Chlamydia	285	24 (8.4%)	86	19 (22.1%)
Gonorrhea	284	4 (1.4%)	87	3 (3.4%)

STD contact interviews: 1973-1997

We (along with our military colleagues) have conducted more than 32,000 contact interviews since 1973.

<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			32	1429
'86	671	467	30			92	1260
'87	556	355	13			43	967
'88	442	395	9	419	234	60	1559
'89	418	358	17	290	355	63	1501
'90	424	357	21	523	336	59	1720
'91	445	294	27	703	421	45	1935
'92	339	246	13	571	481	50	1700
'93	267	194	28	517	475	43	1524
'94	336	233	12	431	449	52	1513
'95	248	144	15	395	310	30	1142
'96	192	99	9	782	262	36	1380
'97	174	86	3	672	325	22	1282
<hr/>							
Ttl:	11750	10382	526	5303	3648	627	32236

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Outreach: field investigations

Nearly 55,000 client tracing investigations have been completed since 1973. The 40% increase since 1995 is due almost entirely to intensified case-finding surrounding chlamydia infection (we were able to assign additional case-finders in 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
1997	235	17	1426	815	202	2695

Total:	26084	1328	8941	14897	3165	54415

* 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
(1973-1997)

STD patient interviewing and the tracing of named partners occasioned the identification of 8962 new cases (called "broughts", short for brought-to-treatment in jargon) since 1973, or about one per day. The large difference between 1995 and 1997 can be attributed to increased staff (since mid-1995) to fight chlamydia and to superior chlamydia tests, introduced in mid-1996.

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<u>Year</u>	<u>Broughts</u>
1973	301
1974	284
1975	318
1976	338
1977	409
1978	427
1979	404
1980	501
1981	667
1982	519
1983	360
1984	481
1985	393
1986	288

<u>Year</u>	<u>Broughts</u>
1987	240
1988	299
1989	244
1990	366
1991	447
1992	418
1993	296
1994	276
1995	155
1996	258
1997	273

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
1997	2202	1904	4106

 25-year total: 110,470
 (Mean = 4419 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 case-finding 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 1991-97 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 1996-7).

InfectionMEN

	1982	1983	1984	1985	1986	1987	1988	1989	1990
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...

MEN

	1991	1992	1993	1994	1995	1996	1997
NGU/Chlamydia	667	696	675	766	436	484	498
Herpes	N/A	N/A	N/A	N/A	N/A	N/A	N/A
V. Warts	228	292	256	303	157	102	84
Scabies	20	29	23	25	35	25	17
P. Pubis	43	43	40	24	19	22	13
Totals:	958	1060	994	1118	647	633	612

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

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...CONTINUED...

WOMEN

	1991	1992	1993	1994	1995	1996	1997
Chlamydia	275	216	203	206	136	171	208
Trichomoniasis	101	97	103	116	89	103	92
Monilia	315	320	271	242	235	243	175
NSV	633	685	548	551	408	487	531
Herpes	N/A	N/A	N/A	N/A	N/A	N/A	N/A
V. Warts	115	181	195	207	84	73	53
Scabies	13	11	8	11	17	11	7
P.Pubis	30	31	29	31	20	17	2
Totals:	1482	1541	1357	1364	989	1105	1068

Syphilis

In the early 1970s, the rate was about 22 cases/100,000; the current (infectious syphilis) rate is 35 times lower (0.64 case 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
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
1997	3	7	10

STD/HIV and Prostitute Women (1970-1997)

Conscientious measures to control STD among local prostitute women began in June, 1970 with the introduction of mandatory gonorrhea 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 steep decline in clinic visits by prostitutes is attributable in largest measure to abandonment of the Health Hold Order system and, in some measure, to declining numbers of prostitutes locally (by about 40% during the 1990s).

As the following (inelegant but informative) 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, has stabilized at about 5% until 1996, but has become worrisomely higher during the last 2 years (15-18% neighborhood) - although the *number* of cases is still small. This trend bears watching, while other (less restrictive than the Health Hold system) means of interrupting transmission chains in their socio-sexual networks are being used. Should these fail.....(Dr. Englander will need to fill in the blank!)

As for HIV infection (data not shown), 683 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 26 (3.8%) have been positive. The last positive HIV test on a local prostitute was 4 years ago (early March 1994). The positivity rate for women who ever practiced prostitution locally (3.2%) is lower by a factor of two-and-a-half compared to women who practiced elsewhere (8%). As for risk factors, 22 (85%) of the 26 HIV-infected women admitted to a history of injecting drug use and 4 didn't (we feel that at least two lied).

Note before you inspect the following Table: Chlamydia testing started 1 July 1987; in addition, there are fewer chlamydia tests than visits because specimens, until recently, were not collected on menstruating patients.

Gonorrhea & Chlamydia in Local Prostitutes

<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	133	10 (7.5)	7 of 130 (5.4)

(Totals for the 25 years of the Health Hold Order system):			
	4935	810 (16.4)	73 of 1006 (7.3)
1995	42	0 (0.0)	1 of 42 (2.4)
1996	49	3 (6.1%)	7 of 47 (14.9)
1997	39	0	7 of 39 (17.9%)

(Totals since end of Health Hold System: 3 years):			
	130	3 (2.3)	15 of 128 (11.7%)

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 (14.3%) were positive for HIV, one for pharyngeal gonorrhea, and one for infectious syphilis.

Presentations

In 1997, 44 formal presentations were recorded, with a total audience of 1026 (excluding radio/television audiences): about one presentation/week, with an average audience of 23. Demand for such presentations was highest during the late 1980s and early 1990s, when concern about HIV ("AIDS Hysteria") was at its peak. Most current audiences comprise health workers and, importantly, high risk persons. Requests to educate students have plummeted, as concern about heterosexual transmission of HIV has diminished, and as educators have become wary of potential complaints surrounding safer-sex presentations in our schools.

	<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>	<u>1997</u>	
Total presentations	101	58	44	
Total audience	3558	1761	1026	
Students	41%	38.8%	12.7%	
Health care workers	19.3%	53.1%	40.3%	
Employers	22.4%	none	none	
Trainers	1%	4.4%	7.9%	
General audience	5.7%	3.1%	9.9%	
High risk persons	11.5%	0.6%	29.1%	

Summary of medications used
(1995-1997)

All medications are provided by our State health department, except metronidazole and benadryl.

STD Clinic

	<u>1995</u>	<u>1996</u>	<u>1997</u>
Bicillin (1.2 m.u.)	48 syringes	88	47
Spectinomycin (2g)	2 vials	0	3
Benadryl (50mg)	400 capsules	0	0
Erythromycin(250mg)	10772 tablets	7502	5948
Rocephin (250mg)	10 vials	8	7
Doxycycline	25948 capsules	21618	24244
Suprax (440mg)	666 tablets	785	640
Metronidazole(500mg)	3640 tablets	4260	860
Ofloxacin	274 tablets	410	100
Zithromax	None	65	200

Condom Distribution Program

An active program of condom distribution in high risk settings was initiated in late 1987 (See: *Morbidity and Mortality Weekly Report* 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; 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: 1993-1997

1993:	50,000
1994:	103,500
1995:	215,000
1996:	247,000
1997:	172,000

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: during the last 10 years or so, STD have declined about 40% and HIV, about 60%. We estimate that, overall, we've distributed about 1,250,000 condoms (less than 100,000 dollars wholesale) in 10 years. It's a lot cheaper and more effective to do that than to pay for an idiot like John Potterat. (I just wanna make sure you're really reading this Report and not just pretending.)

PART V

The traditional tables

"You can observe a lot by watching"

Yogi Berra

[illegible]

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

1997

Gonorrhea Cases by Report year, Coinfection, Source, Age and Race
C:\MYSAS\DISEASE\TABLES2.SAS

	AGECLASS						RACE						ALL
	< 14	14-19	20-24	25-29	30-39	40+	W	H	B	AI	OPI	?	
	N	N	N	N	N	N	N	N	N	N	N	N	
RPTSRC													
Private Male	.	4	2	3	3	4	9	.	7	.	.	.	16
Private Female	1	13	17	8	8	2	14	4	27	.	.	4	49
VDC Male	.	19	19	27	7	3	13	8	51	2	1	.	75
VDC Female	.	26	13	4	5	2	13	8	26	1	2	.	50
Carson Male	.	8	34	9	7	.	3	2	52	.	.	1	58
Carson Female	.	9	12	2	2	.	7	2	14	.	.	2	25
Air Frc Male	.	.	2	.	2	1	1	1	2	.	.	1	5
Air Frc Female	.	4	1	.	.	.	1	.	4	.	.	.	5
FPC/PN Female	.	1	5	1	.	.	2	.	5	.	.	.	7
CHC Female	.	6	3	.	.	.	2	2	5	.	.	.	9
P1 Prnt Male	.	.	1	.	.	.	1	.	.	.	.	.	1
P1 Prnt Female	1	.	1	1	.	.	1	.	2	.	.	.	3
Oth pub Male	.	5	.	.	1	.	.	3	3	.	.	.	6
Oth pub Female	.	7	.	.	.	.	4	.	3	.	.	.	7
ALL	2	102	110	55	35	12	71	30	201	3	3	8	316

1997

Chlamydia Cases by Source, Age and Race
C:\MYSAS\DISEASE\TABLES2.SAS

	AGECLASS							RACE							ALL
	?	< 14	14-19	20-24	25-29	30-39	40+	W	H	B	AI	OPI	OTH	?	
	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
RPTSRC															
Private Male	1	.	5	12	9	10	.	14	2	11	.	1	.	9	37
Private Female	.	2	101	62	24	16	5	119	31	41	.	3	.	16	210
VDC Male	.	.	63	110	54	31	3	76	47	127	3	7	.	1	261
VDC Female	1	1	98	70	19	8	2	92	38	53	3	13	.	.	199
Carson Male	2	.	15	96	31	14	.	44	21	92	.	.	.	1	158
Carson Female	1	1	61	76	17	8	.	66	19	67	3	5	.	4	164
Air Frc Male	1	.	.	6	.	.	.	4	1	1	.	.	.	1	7
Air Frc Female	2	.	8	11	.	7	.	12	2	8	.	1	.	5	28
FPC/PN Female	.	1	62	49	8	5	.	46	33	40	1	3	1	1	125
CHC Male	.	.	2	.	.	.	.	2	.	.	.	.	.	.	2
CHC Female	.	.	55	37	8	4	.	45	22	34	.	1	2	.	104
Pl Prnt Male	.	.	.	.	1	.	.	1	.	.	.	.	.	.	1
Pl Prnt Female	2	1	9	3	1	1	.	11	1	1	.	1	.	3	17
Oth pub Male	.	.	27	1	.	1	.	6	14	9	.	.	.	.	29
Oth pub Female	.	1	20	2	1	1	.	16	3	6	.	.	.	.	25
ALL	10	7	526	535	173	106	10	554	234	490	10	35	3	41	1367

MONTHLY V.D. CLINIC AND LABORATORY REPORT: EL PASO COUNTY HEALTH DEPARTMENT, 1997

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	CY	POS.	PCT+
TESTING:															
HIV(Ab)	181	140	143	155	191	170	185	176	187	181	154	151	2014		
HIV(CUMULATIVE)													25,765		
RPR	265	247	277	269	267	259	234	292	307	290	268	234	3209	38	1.1
FTA	1	1	0	4	2	2	4	4	4	6	3	0	31	14	45.2
GC SMEAR	161	89	17	(DISCONTINUED IN MARCH 1997)									267	11	4.1
GC CULTURE:															
VDC MEN:	146	138	152	153	185	126	131	135	178	164	140	123	1771	75	4.2
VDC WOMEN:	160	146	161	169	168	171	135	183	168	170	146	132	1909	51	2.7
PNC WOMEN:				(YEARLY TOTAL ONLY)									161	1	0.6
FPC WOMEN:				(YEARLY TOTAL ONLY)									407	5	1.2
CHLAMYDIA: MEN	146	138	151	153	185	126	128	135	173	163	140	121	1759	251	14.3
CHLAMYDIA: WOMEN	160	146	161	169	168	171	135	183	168	168	146	132	1907	208	10.9
CHLAMYDIA TX/EPI	92	75	94	89	78	94	82	86	114	84	95	82	1065	N/A	
GC TREAT	10	10	9	9	9	9	8	17	15	9	7	6	118	N/A	
GC PRO-TREAT	24	10	25	15	18	34	28	23	32	24	14	22	269	N/A	
LUES TREAT	1	1	0	1	2	0	0	1	2	4	3	0	15	N/A	
LUES PRO-TREAT	0	3	0	0	0	1	0	0	0	1	0	0	6	N/A	
NON V.D. TREAT	149	108	125	125	102	108	93	111	103	116	93	76	1309	N/A	
CLINIC: NO.	13	12	13	13	13	13	12	13	13	14	11	11	151	N/A	

MONTHLY CHLAMYDIA INVESTIGATIONS REPORT: EL PASO COUNTY HEALTH DEPARTMENT, 1997

JAN FEB MAR APR & MAY JUN & JUL AUG SEP & OCT NOV DEC CY 97 PCT/TL

CONTACTS TO CHLAMYDIA: OUTCOME

NOT INFECTED		1	4		7			1		1	1		15	1.0
BROUGHT - TX	18	25	30		48		27	13		25	15	43	244	16.9
PREVIOUS TX	16	24	17		58		23	17		24	21	28	228	15.8
NOT FOUND	23	16	38		33		33	13		6	50	27	239	16.6
REFUSED EXAM		2	9		1		2	5		1	2		22	1.5
UNLOCATABLE	20	12	35		49		43	13		62	27	53	314	21.8
TRANSFERRED	2	1					1						4	0.3
EPI TREATED	35	45	45		75		49	17		28	25	48	367	25.5
OTHER	3		2								1	1	7	0.5
TOTAL	117	126	180		271		178	79		147	142	200	1440	100%

MONTHLY G.C. INVESTIGATIONS REPORT: EL PASO COUNTY HEALTH DEPARTMENT, 1997

JAN FEB MAR APR & MAY JUN & JUL AUG SEP & OCT NOV DEC CY 97 PCT/TL

CONTACTS TO GONORRHEA: OUTCOME

NOT INFECTED				1								1	0.3
BROUGHT - TX	2	15	6	25		4	5		12	3	9	81	23.5
PREVIOUS TX		8	1	13		4	5		10	2	11	54	15.7
NOT FOUND	2	15	2	7		8	4		5	4	3	50	14.5
REFUSED EXAM		1		2								3	0.9
UNLOCATABLE			3	5		5	4		6		1	24	7.0
TRANSFERRED									2		1	3	0.9
EPI TREATED	2	21	4	43		15	9		14	5	15	128	37.1
OTHER							1					1	0.3
TOTAL	6	60	16	96		36	28		49	14	40	345	100%