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, 1994 - December 31, 1994

"Don't ask me nothin' about nothin'
'cause I might just tell you the truth."

Bob Dylan (1965)

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This *Report* is dedicated to *Helen Pauline Zimmerman*, with love, gratitude, and admiration from the entire STD crew.

INTRODUCTION

For the second year in a row, the business of STD control, in particular contact-tracing and target-group outreach, took a back seat to administrative and bureaucratic exigencies. Staff shortages and personnel changes contributed to the assignment of lower priority to 'shoe-leather epidemiology' -- our traditional forte. As a consequence, our shoe-leather 'epi indices' suffered predictable decline: from A-plus to B-minus (C-plus?) outcomes.

Our STD/HIV control programs comprise two parts: the mission and the infrastructure that supports it. For at least the last two decades, our operational energies have always been disproportionately allocated to the mission: sexually transmissible disease intervention. During 1993 and 1994, infrastructure could no longer be assigned low priority. The move into our new building early in 1993; compliance with many new rules and regulations (OSHA, CLIA, IRS, OEO, COPIC, Medicaid, county government directives, state disease surveillance and record-keeping requirements, community partnership initiatives (for HIV), personnel matters, etc); and the evolution of program record-keeping from a manual to a manual-electronic system, consumed much cogitative and operational energy. The loss of key personnel to retirement (Helen Zimmerman), pregnancy (Elizabeth Mattas), resignation (Don Woodhouse), reassignment (Perry Bethea), special assignment (Lynn Plummer's P.R. Project), constriction of duties (Chris Pratts), and promotion (Helen Rogers; Lynn Plummer [again!]) created confusing task-redistribution problems, personnel insecurities, and morale problems. All of these things (and more!) created managerial problems, which eventuated in the restructuring of the entire program during the first quarter of 1995.

Three positions comprising mostly contact-tracing, counseling, and target-group outreach duties were structured in early 1995 and should be effectively operational by mid-1995. Thus we expect our shoe-leather 'epi indices' to improve measurably by summer - the busiest time of year for new transmission. Help is arriving none too soon.

How can we most succinctly summarize this *Report*'s salient features? Five observations should convey its flavor:

1) Gonorrhea incidence increased 50% during 1994, the first increase in over a decade -- this in a disease for which we have acquired an international reputation as experts in its community control! (The irony is not lost on us.)

2) Chlamydia *appears* to be hyperendemic (i.e., overall case burden is static), but may in fact be declining among the advantaged and increasing among people of color (especially teens).

3) African-American teens, particularly those associated with street gangs, are apparently playing *the* critical role in maintaining transmission of both chlamydia and gonorrhea.

4) The three characterizable groups that have traditionally been associated (locally) with STD transmission, mainly gay men, prostitute women, and Army personnel are no longer contributing significantly to STD (or HIV) transmission.

5) HIV transmission is occurring at very low levels, with perhaps one to two dozen persons newly becoming infected in El Paso County.

For the first time reader, a word about format. This *Report* is not pretty. It contains no graphics of any kind, and no statistical analyses...only copious amounts of boring numbers and percentages. (A statistician friend of ours once said that if it's not in the percentages, it's probably not there. We concur.) The real purpose for this compilation is not for public consumption (because it would put folks to sleep) but to serve as a repository of data that can be quickly accessed and that cover the historical trend. For those readers interested in specific graphic outputs, we would be delighted to accomodate their requests (Ask for Steve Muth @ (719) 575-8610).

PART I
Chlamydia control

We estimate that El Paso County hosts about 3000 cases of chlamydia annually. (There are about 1600 cases reported which, given a test that is about two-thirds accurate, really means that there would have been about 2500 diagnoses, given a 100% accurate test; in addition, under-reporting and under-detection due to patients not being routinely tested, particularly by private doctors, probably account for another 500 cases.)

What we record below are some data collected during the seven years since we began our chlamydia control efforts. In the data that follow, three things are notable:

1) Chlamydia *appears* to be hyperendemic, but is probably epidemic in disadvantaged teens and declining in advantaged teens.

2) Our modest control efforts are probably containing, rather than reducing, the chlamydia burden. (We suspect that much of the disease level is maintained by continuous re-introduction of chlamydia by in-migration and travel, though we only have anecdotal evidence for this view.)

3) The ethnic face of chlamydia is slowly changing: In the mid-1980s, most infected patients were white; currently chlamydia is increasingly diagnosed in non-whites (see below).

Laboratory reported chlamydia cases: 1994
(All Report Sources)

	Men	Women	Total (%)
Private providers	43	326	369 (21.9)
STD Clinic	264	223	487 (28.9)
FPC/PNC/CHC*		201	201 (11.9)
Planned Parenthood		82	82 (4.9)
Ft. Carson	226	255	481 (28.5)
Air Force	20	47	67 (4.0)
Total	553	1134	1687 (100)

*Family Planning, Prenatal, Community Health Center, clinics

Case distribution is roughly composed of a third occurring in the military sector, a third in the public sector, and a third in the private or quasi-private sector.

As for the pronounced disparity between men and women (2:1 women), we feel it has to do with two things: 1) the currently used chlamydia tests are lousy (and lousier in men than in women) and 2) women are likelier to be tested than men (Note that in places where men and women have equal opportunities to be screened for chlamydia, like the STD Clinic (and maybe even Fort Carson), the male-to-female ratio tends to be closer to 1:1).

Nearly four-fifths (78%) of the cases are younger than 25 (as opposed to 70% for gonorrhea) and 91% are under age 30 (86% for GC) --an age distribution that mirrors that of the last 3 years.

As for ethnicity, a comparison of baseline (1988) data with current (1994) information reveals a notable shift:

Percent of Chlamydia Cases by Major Ethnic Group
(All Report Sources)

	White	Black	Hispanic/Other
1988	53	33	14
1994	46	38	17

Our interpretation is that, as safer sex campaigns have intensified since the late 1980s, socio-economically advantaged populations (likelier to be white) have more successfully used sexual self-defense strategies to prevent infection. (In support of this view, observe the rapid decline in Air Force cases and in Family Planning settings, where whites predominate, as opposed to, say, our Prenatal clinic where young non-whites are well represented. See Tables below)

Chlamydia cases by selected report source and gender
1988-1994

(Excludes private sector cases)

	H.D. Clinics		Fort Carson		Air Force		Total
	Men	Women	Men	Women	Men	Women	
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
1992	185	327	277	289	45	63	1186
1993	264	299	212	239	32	38	1084
1994	264	332	226	255	20	47	1144

The Table excludes private sector cases because there is more artifact in detection and reporting than with public and/or military sectors cases; thus, it is intended to serve as a good trend indicator. Overall the trend suggests that chlamydia is hyperendemic (rather than epidemic).

The Fort Carson data are notable because the male-to-female ratio is (almost always) roughly 1:1. (In comparison, 70% of their 1993 gonorrhea cases are diagnosed in men, a 2.4:1 ratio.) Is this an artifact of testing? of selective screening? of less rigorous contact tracing efforts? or is it something about the disease itself (i.e., the female reproductive tract is a superior ecological niche for chlamydia than the male's)?

Gonorrhea and chlamydia tend to occur in different risk spaces, with gonorrhea being maintained mainly in the socio-sexual networks of African-Americans in their twenties, while chlamydia (until recently) in the socio-sexual networks of very young (late teens, early twenties) whites. There is ordinarily not much overlap between the two diseases. It is instructive, though, to look at the subset of patients who are dually-infected. Of the 165 persons who were diagnosed as having both gonorrhea and chlamydia during 1994, four-fifths occurred in persons 15-24 years old and three-quarters in non-whites. Of the whites, women outnumber men 6:1, suggesting that these women are acquiring and transmitting dual infection in non-white networks.

The lesson from all the above data is that, when screening women for chlamydia and/or gonorrhea, priority should now go to very young women of color or very young white women whose partners are men of color.

Chlamydia screening in Women's Clinics
1988-1994

Year	Family Planning		Prenatal/CNM	
	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)

* Only high-risk clients were tested in 1989

Note the pronounced numerical and positivity rate decline in Family Planning Clinic cases, as opposed to the stubborn positivity rate in Prenatal clinic.

Chlamydia cases in VD Clinic

Although the overall positivity rate appears to have dramatically declined from the first full-year of chlamydia screening in 1988 to 1994, it is probably artifactual, as only high-risk clients were tested before 1989. The data for the last 6 years argue for hyper-

endemicity rather than epidemicity. We are currently testing more than twice the number of patients than we did in 1988 (4141: 1733= 2.4) and identifying roughly the same number of positives (433 vs. 405).

Chlamydia cases in VD Clinic
1988-1994

	1988		1989		1990	
	Tests	Pos (%)	Tests	Pos (%)	Tests	Pos (%)
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...

	1991		1992		1993	
	Tests	Pos (%)	Tests	Pos (%)	Tests	Pos (%)
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...

	1994	
	Tests	Pos (%)
Men	1917	226 (11.8)
Women	2224	207 (9.3)
Total	4141	433 (10.5)

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 classifed 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).

Chlamydia Cases: reason for presentation
All H.D. Clinics

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
Volunteer	111 (57.2%)	140 (56.2%)	124 (49.2)
Screen	27 (13.9%)	47 (18.9%)	41 (16.3)
Contact	56 (28.9%)	62 (24.9%)	87 (34.5)
	194 (100%)	249 (100%)	252 (100%)

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%)
	268 (100%)	217 (100%)	443 (100%)	436 (100%)

WOMEN: CONTINUED...

	1992	1993	1994
Volunteer/ Screen	260 (75%)	226 (70.8%)	229 (73%)
Contact	87 (25%)	93 (29.2%)	85 (27%)
	347 (100%)	319 (100%)	314 (100%)

Thus, between a quarter and a third of H.D. cases are identified through contact tracing (for men or women).

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 (663/1438) of women had their chlamydia detected as a consequence of contact tracing since 1988.

STD Clinic women with chlamydia: reason for presentation

	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%)
	159(100%)	155(100%)	208(100%)	287 (100%)

...CONTINUED...

	1992	1993	1994
Volunteer/ Screen	135(60.8%)	117(57.1%)	117(58%)
Contact	87(39.2%)	88(42.9%)	85(42%)
	222(100%)	205(100%)	202(100%)

Chlamydia contact interviews
(All H.D. Clinics)

We have interviewed about 3500 civilian cases of chlamydia in the last seven years, and obtained about 5500 contacts, with a consistent contact index of about 1.7 for both men and women. During 1994, we conducted nearly 100 fewer interviews than during 1993, largely because we temporarily shifted our operational energies to a pilot screening program (see below) sponsored by the Colorado Department of Health (Spring of 1994 through December). Thus, for the first time since we began our chlamydia control efforts in 1988, we interviewed less than four-fifths of public clinic cases:

Chlamydia Contact Interviewing
(Health Dept. diagnosed cases)

	1988	1989	1990	1991	1992	1993	1994
Reported Cases	511	361	638	689	512	517	596
Interviewed	82%	80%	82%	91.5%	86.5%	91.8%	72.3!!!

	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)

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

Proportion of chlamydia cases interviewed
(Fort Carson)

	1988	1989	1990	1991	1992	1993	1994
Reported Cases	447	552	435	544	566	541	481
Interviewed	65%	63%	90%	77%	85%	88%	93.3%

Thus, they have also had about 3566 cases reported and have interviewed nearly four-fifths (2794/3566); 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.

Chlamydia contact tracing

The number of contacts to chlamydia sought locally since contact tracing efforts began in 1988 has remained pretty stable since 1990. Of concern is the quality obtained during the last two years, especially 1994's outcomes: note the low proportion of new cases identified (15.4%; it should be closer to 20%)

and the greater proportion of contacts not successfully traced (33.1%; it should be closer to 20% also). Lowered productivity can be attributed to inadequate staffing and increased administrative duties, especially the administration of the pilot chlamydia screening initiative.

Local contacts to chlamydia: outcomes

	1988	1989	1990	1991
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...

	1992	1993	1994
Infected (New cases)	184 (21.1)	160 (21)	115 (15.4)
Not infected	564 (64.6)	367 (48.2)	384 (51.5)
Not examined	125 (14.3)	235 (30.8)	247 (33.1)
	873 (100)	762 (100)	746 (100)

Thus, 5116 contacts have been sought locally in seven years, of whom 990 (20%) were newly identified cases; 3034 others were treated preventively but had negative tests. We bet that about 760 of these 3034 (about a quarter) were really positive, but the relatively insensitive tests did not show positive results. Thus, our chlamydia contact tracing efforts probably remove about 0.7 infected chlamydia patients per day. We should be getting at least one, ideally 1.5 per day.

Pilot Chlamydia Screening Program

During the last 8 months of 1994, we implemented a focused (State Health Dept) funded chlamydia screening program. This was a fishing expedition to develop a sense of how much (and in what medical settings) chlamydia was out there. Substantial administrative energy was expended to set up this initiative and even more energy was diverted to actually doing it. (It turns out that testing in custodial settings, like Zebulon Pike Detention Center and the El Paso County Jails, we actually had to perform specimen collection ourselves.)

During these 8 months, we collected about 4500 specimens in a half dozen different settings. (Emphasis was on screeening young folks (< 25 years old) and on those who, because being asymptomatic, would not otherwise have been tested.)

Setting	Criterion	No. Tests	% Pos.
Community Health Center	Asx Women <25	250	2
Family Medicine Center	Asx Women <25	2	0
Zebulon Pike Detention	All Women (Vol)	66	16.6
Family Planning Clinic	All Women	1141	2.7
STD Clinic	All Women	1536	8.5
STD Clinic	All Men	1256	10.8
County Jails	All Men < 25 (Vol)	244	7.3

(Men in County Jails were evaluated by PCR; all other settings used standard EIA tests)

Summary

We need to get adequate resources to fight this disease in a comprehensive way, the way we did for gonorrhea during the 1970s. Chlamydia is too serious and widespread of an infection to be attacked as a public health after-thought. (Indeed, it is remarkable how much has been accomplished during the last seven years on meagre-to-non-existent resources; certainly there are no categorical funds for its control. Our successes have been accomplished on borrowed time and monies, and our determination.)

Part II

HUMAN IMMUNODEFICIENCY VIRUS INFECTION

AIDS proper: a brief profile

At least 399 persons with full-blown AIDS have lived in El Paso County since the first reported case in the summer of 1982. About three-fifths are known to be dead. Two hundred and sixty-two (two-thirds) were counted locally, while almost a third (136 cases) were diagnosed and counted elsewhere.

Note: all data in this Report refer to ADULT HIV/AIDS cases. Pediatric cases (eleven) are discussed in the last section.

AIDS cases having resided locally

	Counted locally			Counted elsewhere			Total		
Yr.	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	13	12	(92)	8	3	(38)	21	15	(71)
1987	9	8	(89)	10	10	(100)	19	18	(95)
1988	24	22	(92)	10	9	(90)	34	31	(91)
1989	32	28	(88)	16	14	(88)	48	42	(88)
1990	24	20	(83)	15	8	(53)	39	28	(72)
1991	36	28	(78)	16	8	(50)	52	36	(69)
1992	25	13	(52)	23	12	(52)	48	25	(52)
1993	44	9	(20)	23	8	(35)	67	17	(25)
1994	44	4	(9)	11	2	(18)	55	6	(11)
Ttl:	262	155	(60)	136	78	(57)	398	233	(59)

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).

Note: the 1993 change in the AIDS definition served to increase our AIDS totals. Overall, during 1993-4, 85 AIDS cases were reported that would not have met the pre-1993 definition. (One case was added to 1989's total, 3 to 1990's, 4 to 1991's, 13 to 1992's, 34 to 1993's, and 30 to 1994's)

HIV/AIDS cases by age at report and clinical status

It is instructive to examine the data by age at report and by clinical diagnosis. (The numbers in parentheses in the Table below represent the AIDS subset. Thus, for example, 50 (15) means that 50 persons with HIV were identified, of whom 15 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.)

Year Reported	Age at report (Mean)	Totals HIV(AIDS)	Deaths
1982-85	30.6	41 (15)	8
1986	30.2	99 (21)	9
1987	29.9	84 (19)	11
1988	32.6	101 (34)	30
1989	32.0	104 (48)	15
1990	32.4	104 (39)	34
1991	32.6	96 (52)	42
1992	33.1	100 (48)	41
1993	32.9	102 (68)	36
1994	33.6	109 (55)	31
Total		943 (399)	257

(Of the 257 deaths, 228 were attributed to AIDS and 29 (11%) to other causes)

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 are identified each year, which argues against the idea of rapid virus propagation, and note that the ratio of reported cases to deaths is getting lower--suggesting that within a few years, more people will die with HIV in a given year than will be newly identified as HIV cases. The case-to-death ratio is steadily declining, from 16.5:1 in 1986 (the first full year of testing) to 3.5:1 in 1994.

Although many HIV persons are proceeding to an AIDS diagnosis, the annual number of deaths has stabilized during the last four years, probably due to several factors: Those infected later in the epidemic may experience longer survival; more persons have had access to medical care (because of Ryan White funding); and the 1993 AIDS definition change has "improved" AIDS survival artifactually. (We feel the latter is the strongest reason.)

HIV/AIDS cases by age at diagnosis and clinical status

Year Diagnosed	Mean age	S.D.	All HIV/AIDS Cases
1982-85	30.5	8.5	80
1986	29.7	8.4	153
1987	29.6	7.6	113
1988	32.4	10.3	115
1989	31.8	10.1	118
1990	31.6	8.8	108
1991	31.5	9.0	81
1992	31.2	8.7	65
1993	31.0	6.8	49
1994	33.9	7.2	58

Table has 3 missing observations (dates 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): at least half of all cases being reported to us recently have received an HIV diagnosis elsewhere in the past. This is powerful evidence that the HIV epidemic is not growing in our region.

Miscellaneous age chronology data

In El Paso County, the mean age at acquisition of HIV is probably 28.6 years (based on data from 97 seroconverters); the mean age of those not known to have proceeded to AIDS or to have died is 34.6 (N= 520); the average age at AIDS is 35.5 (N= 399) and at death, 37.6 years (N= 257). Thus, the average HIV-infected person locally is about one year from an AIDS diagnosis and about three years from death (as of 12/31/94), meaning that we can expect a substantial increase in AIDS diagnoses by the end of 1995 and many deaths by the end of 1997.

Risk factor classification of AIDS and AIDS-Free Cases (1982-1994)

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 four main changes are: 1) for men---a lower proportion of gay men and a higher proportion of injecting drug users (IDU)...and yet the combined total (Gay and IDU) is about the same; 2) a slight increase in the percentage of women (see Legend at base of Table); for women 3) increased representation of IDU and (surprisingly) decreasing representation of sex as mode of acquisition; and 4) the

predictable decrease in transfusion as a risk factor, as the blood supply gets safer.

In a word, the HIV "epidemic" is not getting out of the socio-drug-sexual networks of injecting drug users and of men who have sex with men, and it is probably declining (at least, it's not growing).

Although not shown here, there is little difference between "known" and "suspected" risk factors. Roughly 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 percentage 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 (part educated guess) of risk classification.

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

	AIDS (Full-Blown)		HIV (AIDS-Free)	
	Men (N=361)*	Women (N=38)*	Men (N=479)*	Women (N=69)*
Gay/bi-sexual	74.3%	N/A	71.1%	N/A
Gay/ I.D. user	14.4%	N/A	13.7%	N/A
I.D. user	7.7%	38.5%	13.1%	51.1%
Sex with IDU/Hetero	0.7%	50.0%	0.6%	42.2%
Transfusion	2.9%	10.5%	1.5%	6.6%
Total	100%		100%	

*There are 81, or 8.6% of the total 943 cases, for which no risk factor information is available Thus the true denominator for these four columns is 862. We are using the full N in parentheses to show the complete case distribution by gender. Notice that the male-to-female ratio for AIDS cases is 9.5:1, but 6.9:1 for those not known to have AIDS. Thus the proportion of women is increasing (from 10.5% to 14.4%); note that the *numbers* of infected women is 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
(1982-1994)

(Based on REPORT 9 in computer.)

HIV testing has been available since June of 1985. The following represents the distribution of all 947 infected adults (including full-blown AIDS cases) reported locally, and where they were identified. Note that three-quarters are detected outside of health department clinics. (Also: three-quarters of all newly reported cases in 1994 -data not shown- emanate from the last category listed: private doctors, hospitals, etc). Note also how few of our Drug Clinic clients are infected.

	Ttl Cases/(%)	Men	Women
1. Counseling/Testing Site (Health Dept.)	173 (18.3)	164	9
2. V.D. Clinic	39 (4.1)	33	6
3. VSR (Prostitution)	9 (1.1)	1	8
4. Drug Clinic	5 (0.5)	3	2
5. Donor centers	127 (13.4)	116	11
6. Military*	125 (14.5)	115	10
7. Doctors/hospitals/other	469 (49.5)	408	61
Total:	947 (100)	840(88.7)	107 (11.3)

* Actually, military doctors have reported 170 cases, of whom 125 are in uniform and 45 are 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: how did the HIV-infected person initially find out about his infection status ("Reason for presentation")? These data are based on the 868 (92% of 947 cases) with known information.

...viewed annually, since the test became available (percentages are shown):

Reason	Thru 1986	1987	1988	1989	1990	1991	1992	1993	1994
Volunteer	23.5	20.2	12.4	17.5	22.1	11.5	15.9	17.8	14.8
Screen	62.8	74.7	79	73.8	62.1	79.5	76.2	68.9	66.7
Contact	13.7	5.1	8.6	8.7	15.8	9.0	8.0	13.3	18.5

100 percent

Overall, 18.4% are volunteers, 70.4% are screening discoveries, and 11.2% are contacts. Thus, only one out of five of all HIV cases discover infection as a consequence of wanting to know; four-fifths are informed as a consequence of screening or partner notification.
(Note: Year of first HIV+ date was used as baseline date for these data.)

HIV contact interviews
(1985-1994)

(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.

Year	No. Interviews	No. Contacts	Contact Index
1985*	30	57	1.9
1986	96	184	1.9
1987	46	78	1.7
1988	62	126	2.0
1989	65	133	2
1990	60	128	2.1
1991	43	81	1.9
1992	57	85	1.5
1993	42	60	1.4
1994	54	92	1.7
Ttl:	555	1024	1.8

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

The vast majority of HIV cases NOT interviewed were 1) not located (mostly transient donors, N=143 or 15%) or died at time of diagnosis, or 2) not eligible (because counselled/interviewed in the jurisdiction that originally diagnosed the case, N=178, or 20%), or 3) we missed the opportunity (6%). We thus formally contact interview 60% of reported cases.

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).

That there are fewer interviews being done has to do with the fact that less than half of cases newly reported to us are really new (they've been talked to elsewhere. We counsel them, but only do interviews if one is indicated.)

On 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. HIV is usually difficult to transmit.

Seroconverters by year of conversion

(Based on REPORT 2 in computer.)

Year	Civilians	Military	Total
1981	1	0	1
...			
1986	9	1	10
1987	5	2	7
1988	10	2	12
1989	9	3	12
1990	13	2	15
1991	10	5	15
1992	7	5	12
1993	4	5	9
1994	2	2	4
Ttl:	70 (72%)	27 (28%)	97 (100%)

Not all seroconversions are observed. These data, however, are useful as a trend indicator. The relatively small annual burden (perhaps a dozen to 20 seroconversions actually occur in EL Paso County) and the accelerating annual HIV death burden (about 40 currently) argues for declining prevalence over time (implosion idea). Caveat on 1994 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.

Seroconverters are not very young, contrary to the propaganda in the media reports; the average (mean) age at seroconversion is 28.6 years (Range 17 to 51 yrs). Only four of the 97 seroconverters are teens: 17 years old (one) and 19 (three). Forty percent convert in the 20-25 age interval and another 20% convert at ages 33-36. Thus, the distribution is bi-modal, with excessive risk in both the early twenties and early thirties.

Through the 1980s, seroconverters tended to be men; only two (4.8%) of 42 seroconverters were women. During the 1990s, women have been catching up: 6 of 55 (10.9%) recent (1990-1994) converters are women.

Health Department HIV antibody testing

HIV testing began in the summer of 1985 in the Counselling/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 18,791 specimens for testing since 1 June 1985; 2641 were done in 1994, a 16.6% decline over 1993 (N=3167). The decline is probably due to a reduction in demand for testing.

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: 1985-1994

	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

Thus, 12,553 tests in CTS yielded 185 positives (1.5%) in the 9.5 years since the test became available; the CTS alone has served to identify only about one positive per month for the last 8 years.

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
No. of Tests	673
No. Positive	3
Percent Pos.	0.4

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, 3878 tests were done in STD Clinic, with 40 positives identified (1%).

HIV testing in prostitute women (1985-1994)

A total of 473 women with histories of prostitution locally have been seen at our department since the summer of 1985, of whom 462 (98%) have been tested for HIV antibody. With 5, we were unable to obtain blood and 6 slipped through our STD or Drug Clinic testing program. Sixteen (3.5%) are infected with HIV. None is known to be currently 'working' in prostitution (Infected prostitutes are required to abandon prostitution, at least in our health jurisdiction).

AIDS-virus infection in children:

Eleven children have been reported to us as being AIDS-virus infected since the beginning of the epidemic; only 3 are known to be alive.

"Age" means age at diagnosis, not current age. (Their ATS # are, in sequence, 1163, None, 10746, 2369, 4505, 6044, 7278, 10027, 11338, 13682, 14409.)

Gender	Age	Status	Route of infection	Year reported
Male	10 yrs	Dead	Transfusion (Hemophiliac)	1985
Male	Newborn	Dead	Inf. mother (transfusion); birth	1985
Male	3 yrs	Unknown**	Inf. mother (transfusion); birth	1985
Male	3 yrs	Alive*	Infected mother (IV); birth	1988
Female	Newborn	Dead	Inf. mother (Ct. to IV); 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	Dead	Transfusion (Hemophilia)	1993***
Male	20 mos.	Alive	Inf. mother (Risk unknown:Arizona)	1994
Female	3 mos.	Alive	Inf. mother (Risk=unknown:Germany)	1994

* Attending school locally (age 9 as of 1994)
** Presumed dead; no longer residing in this State
*** originally reported in Oklahoma in 1986

In addition, there have been 7 newborns, three males and four females whose mothers are known to have HIV, but whose positive blood tests may represent transfer of the mother's antibody, rather than true infection. Of the seven, two are temporarily lost to follow-up (ATS # 8129, 10789), while the other five are not infected (ATS # 8044, 10423, 11675, 13278, 13468). Two were born in 1991, three in 1992, one in 1993, and one in 1994.

Part III

Gonorrhea control

We report a steep (50%!) increase in gonorrhea incidence, from 517 cases in 1993 to 773 in 1994. Seventy percent of that increase occurred in African-Americans and, although we do not have solid data to support our assertion, we suspect that gonorrhea is again epidemic in local gangs. Neither surveillance nor control efforts aimed at gangs have been vigorous enough since Perry Bethea left our employ in December 1992. Starting in mid-1995, when our new contact tracers are hired and sufficiently trained, we will obtain the necessary data and apply the necessary pressure to dampen incidence among young African-Americans.

Case-finding highlights: gonorrhea

Gonorrhea case-finding efforts were inadequate during 1994, as shown below. Only about three-quarters of gonorrhea cases were interviewed for contacts, our worst percentage in nearly 15 years; in addition, we record the lowest contact index (contacts elicited per case interviewed) since the 1970s. (As we shall see in a moment the *quality* of contact tracing outcomes also suffered during 1994). That this is unacceptable is underscored by the fact that we have half the number of cases that we used to have during the 1970s (usually about 1500 cases); it's not as if this is an unmanageable burden.

Contact interviewing activity

	`77-`79 (Averages)	`80-`82 (Averages)	1983	1984	1985	1986	1987	1988	1989	1990
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...	1991	1992	1993	1994
Interviewed	95.2%	92.1%	89.2%	73.6%
Contacts per case	1.73	1.81	1.55	1.52

Gonorrhea case distribution
(El Paso County 1987-1994)

Cases	1987	1988	1989	1990
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...	1991	1992	1993	1994
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

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 occurring in the military sector. During the last four years, a notable decline has occurred; the military now accounts for less than a third of cases. Whereas the stereotypic gonorrhea patient used to be an African-American wearing green (Army uniform), he is now wearing civilian clothes and affiliated with gangs (probably).

Gonorrhea in Teens

Since the late 1980s, an increasing proportion of teen-agers are represented in gonorrhea transmission. (Given that 40% of chlamydia cases occur in teens, we need to increasingly focus our control and education efforts on the young set.)

I use 1981 as a base year because it was the year AIDS was first recognized. It was not, however, until the mid to late 1980s that folks began to pay more attention to sexual self-defense. As cases dramatically declined after 1986, one group paid less attention: teens. Observe in the Table below how the absolute number of infected teens remains remarkably stable, while their proportional representation increases substantially. (With gonorrhea, incidentally, these are mostly people of color.)

It is also not a coincidence that 1989 was the first year that teens began to account for nearly thirty percent of cases: gangs were first noticed locally (by the police) in mid-1988.

We noted earlier (Chlamydia Section) that non-white teens

were increasingly well represented in the chlamydia universe AND in the universe of dually-infected (GC and C.T.) patients. (Teens also comprise one third of gonorrhea repeaters.) When we put all these epidemiologic facts together, we come up with a definite target population: *teens, especially non-white teens.* They ought to constitute our highest priority for contact tracing and for hanging-out on their turf (condom distribution, etc).

Year	Total Gonorrhea	Total (%) in teens
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)

+30%

Gonorrhea contact tracing

A total of 157 gonorrhea cases were newly identified in 1994 as a consequence of contact tracing. Of concern is the high percentage of contacts not examined (34.8): it is the highest in a decade and reflects poorly on the rigor and quality of our contact tracing efforts.

Local contacts to gonorrhea: outcomes

	1980-1982 (Average)	1983	1984	1985
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%)

...CONTINUED...	1994
Infected (New cases)	157 (33.1%)
Not infected	152 (32.1%)
not examined	165 (34.8%)
Total sought	474 (100%)

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

The following data suggest that we still retain a measure of control, despite substandard GC case-finding efforts. The data are very consistent over time, with nearly 30% of cases identified by contact referral (an active process), as opposed to the more passive process of screening or waiting for symptoms to appear ("volunteers").

	1984	1985	1986
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...

	1987	1988	1989	1990
Volunteer	537 (53.6%)	502 (54.2%)	485(56.3%)	498 (59.3%)
"Screenee"	159 (15.9%)	140 (15.1%)	133(15.5%)	118 (14%)
Contact	306 (30.5%)	285 (30.7%)	243(28.2%)	224 (26.7%)
Total cases	1002 (100%)	927 (100%)	861 (100%)	840 (100%)

...CONTINUED...

	1991	1992	1993	1994
Volunteer	426 (54.9%)	344 (54.2%)	269 (52%)	409 (52.9%)
"Screenee"	122 (15.7%)	107 (16.8%)	125 (24.2%)	148 (19.1%)
Contact	228 (29.4%)	184 (29%)	123 (23.8%)	216 (28%)
Total cases	776 (100%)	635 (100%)	517 (100%)	773 (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
Volunteer	54.9	54.2	52.0	52.9
"Screenee"	15.7	16.8	24.2	19.1
Contact	29.4	29	23.8	28

Gonoccocal 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
Cases	71	44	73
Percent	25	21.3	20.2

The notable datum is the percentage recorded for the last six years: somewhere between a fifth and a quarter 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: very young, non-white, and living a rough life. All of these variables probably make for a lousy set of host defenses.

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.

Year	Asymptomatic	All men	Pct. Asymptomatic
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

Gonorrhea repeat cases

The contribution to the gonorrhea burden made by repeaters is now relatively high again; given substandard case-finding efforts, this is not surprising. (Repeat infection is a pretty good indicator of intervention efforts.) The percentage of repeat cases is the highest in a decade.

Year	Repeat cases	Percent of all cases
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

In terms of bodies, 54 (27 in 1993!) persons (33 men) were repeaters; 44 had 2 episodes, 8 (1 in 1993) had 3, and 1 each had 4 and 5 episodes (none in 1993). Thus these 54 persons generated 121 (55 in 1993) cases in all.

Gonorrhea cases in African-Americans

Two-thirds of all GC cases affect African-Americans. Note that the 1994 percentage is similar to that of 1990-1991, when we experienced a sustained outbreak in local gangs.

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

...CONTINUED...

	1992	1993	1994
Number	381	326	484
Percent	(60)	(63)	(66)

Gonorrhea in street prostitutes

The relatively low number of clinic visits by prostitute women during the last five years emphasizes the trend since the mid-1980s: the fear of viruses has reduced demand for prostitution and, consequently, fewer ladies are in the trade. The wonderfully low venereal disease rate since 1990 reflects the impact of relentless safer-sex initiatives, especially free condom distribution.

The low number and positivity rate of STD (including gonorrhea, chlamydia, syphilis and HIV) in local prostitute women prompted us to relinquish use of the Health Hold Order effective 1/1/95. Prostitutes are no longer required to be tested for STD when arrested for solicitation - a system that was implemented in 1970. Monitoring will continue on a voluntary basis and by analyzing contact tracing data for evidence of STD transmission by and to prostitutes.

Below are recorded data for the last quarter century (for gonorrhea) and for the 7.5 years that chlamydia testing has been available: (These data are being prepared for publication.)

Year	Original visits*	Gonorrhea cases	% Positive
1970	105	42	40
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
1988	195	21	10.8
1989	192	24	12.5
1990	157	4	2.5
1991	148	7	4.7
1992	150	4	2.7
1993	114	6	5.2
1994	130	8	6.2
25-yr total:	4932	808	16.4

*Original visits excludes "follow-up" visits.

Screening for chlamydia in prostitute women started June 1, 1987 and was not universally applied until mid-1989. In addition, until early 1989, there were some diagnostic ("indeterminate" results) problems. Specimen collection is also affected by menstruation. The following data, then, are not as rigorous as the gonorrhea data, but they are good trend indicators.

Chlamydia in prostitute women

	Visits	Tests(%)	Positive (% Pos)
Second Half of 1987	86	65 (76)	4 (6.2)
1988	195	145 (75)	19 (13.1)
1989	192	141 (73)	14 (10)
1990	157	144 (92)	7 (4.9)
1991	148	148 (100)	11 (7.4)
1992	150	148 (98.7)	7 (4.7)
1993	114	112 (98.2)	3 (2.7)
1994	130	127 (97.6)	6 (4.7)
Total		1030 (100)	71 (6.9)

For comparison, the current positivity rate for non-prostitute women in VD Clinic is 9.3%!

Gonorrhea in homosexual men

During 1994, no data recording sexual orientation of GC patients were systematically recorded, an error that will be corrected for 1995. It is felt that relatively few 1994 GC cases occurred in gay men.

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

Gonorrhea case rates

(Assumes a 1994 population of about 450,000): Not surprisingly the 1994 rate increased about 50%, the highest rate since 1991.

Gonorrhea rates (cases/100,000)

1970	1973	1977	1980	1981	1982	1983	1984
667	700	735	468	471	383	385	438

CONTINUED...

1985	1986	1987	1988	1989	1990
420	333	255	232	213	208

CONTINUED...

1991	1992	1993	1994
192	155	125	186

PPNG (penicillinase-producing N. gonorrhoeae) cases:

During 1994 we recorded 14 cases, or roughly one case per month, which is the expected burden during the last decade (the exception was the large outbreak in gangs during 1990-1991).

Since the introduction of PPNG into the USA in the spring of 1976, 214 cases have been diagnosed in El Paso County. They occurred in context of 23,267 gonorrhea cases, a 0.9% PPNG rate.

PPNG cases

1976	1977	1978	1979	1980	1981	1982	1983	1984
0	1	0	3	0	7	21	5	2

1985	1986	1987	1988	1989	1990	1991	1992	1993
4	20	15	16	13	44	32	15	2

1994
14

Male-to-female ratio: gonorrhea

This ratio decreased during 1994 and is now at an all-time low and very near parity. We suspect that this has to do not only with the virtual absence of gay men in GC morbidity but, importantly, in the declining share of cases accounted for by the military (heavily male).

Year	Men	Women	Ratio
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

Part IV

Other STD Program data/miscellaneous

STD contact interviews: 1973-1994

Yr	Civilian Gonorrhea	Ft.Carson Gonorrhea	Syphilis (All)	Civilian Chlamydia	Ft.Carson Chlamydia	HIV/ AIDS	Ttl
'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	65	1503
'90	424	357	21	523	336	60	1721
'91	445	294	27	703	421	43	1933
'92	339	246	13	571	481	57	1707
'93	267	194	28	517	475	42	1523
'94	336	233	12	431	449	54	1518
Ttl:	11369	10053	499	3454	2751	555	28371

Outreach: field investigations

During 1994 we performed 2496 field investigations in support of STD/HIV control, a 14.4% increase over 1993. Although the quantity is impressive, the quality remains modest, compared to previous years.

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

Year	Gonorrhea	Syphilis	Chlamydia	Other*	HIV**	Total
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
Total:	25121	1265	5761	12842	2474	47463

* 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
(1973-1994)

STD patient interviewing and the tracing of named partners occasioned the identification of 8276 new cases (called "broughts", short for brought to treatment in jargon) since 1973, or about one per day. Note that the 1994 total is the lowest since 1989.

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

VD Clinic attendance increased 12.4% during 1994. Because we computerized STD Clinic registration, we now have demographic data at our fingertips: 56% of visits are by women; roughly the same percentage (52.6) are by folks younger than 25; and about the same (54%) are by whites.

Age Distribution

0-24:	52.6%
25-39:	38%
>39 :	9.4%

Ethnicity

White:	54%
Black:	30%
Hisp:	13%
Other:	3%

Year	New visits	Return visits	Total
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
		22-year total:	98,080

(Mean = 4458 per year)

Note: Table excludes the approximately 4500 HIV Testing Center visits in 1994.

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 upward trend for NGU/Chlamydia and in v.warts (in men) during the last few years. No data are given for Herpes in 1991-94 because they were not rigorously kept, but we know that case levels are low. Note also the spectacular decline in trichomoniasis and the increase in NSV (Gardnerella) in women since the early 1980s.

Infection	Men								
	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
NGU/Chlamydia	667	696	675	766
Herpes	N/A	N/A	N/A	N/A
V. Warts	228	292	256	303
Scabies	20	29	23	25
P. Pubis	43	43	40	24
Totals:	958	1060	994	1118

Infection	WOMEN								
	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
Chlamydia	275	216	203	206
Trichomoniasis	101	97	103	116
Monilia	315	320	271	242
NSV	633	685	548	551
Herpes	N/A	N/A	N/A	N/A
V. Warts	115	181	195	207
Scabies	13	11	8	11
P.Pubis	30	31	29	31
Totals:	1482	1541	1357	1364

Syphilis

In the early 1970s, the rate was about 22 cases/100,000 population; the current rate is ten times lower (2.3 cases per 100,000).

Year	Infectious syphilis	Late syphilis	Total
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

Presentations

A minimum of 69 formal presentations were recorded, with a total audience of 2336 (excluding radio/television audiences). Thus, about 1.3 presentations a week, with an average audience of 34, were done in 1994. Although it is possible that fewer presentations were done, we suspect that a bunch were simply not recorded on those little yellow cards we're supposed to fill out.

About half of audiences are health care workers. The pronounced decline in presentations to students has to do with our reluctance to do those (they are really Health Education's province...and we do get tired of criticism for our efforts by certain conservative segments of the community. We prefer to be appreciated.)

	1987	1988	1989	1990
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...	1991	1992	1993	1994
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%

Presentations by person

	1987	1988	1989	1990	1991	1992	1993	1994
Potterat	64	74	66	65	67	52	58	46
Muth	26	19	10	10	4	5	??	??
Woodhouse	0	17	20	8	5	10	4	5
Latimer/Sears	18	13	15	16	9	10	??	??
Castle	0	5	15	8	0	13	??	??
Drzewiczewski	2	2	0	2	3	1	0	0
Rogers	0	2	1	3	5	0	9	2
Bethea				1	21	15	N/A	N/A
Zimmerman					1	0	0	0
Pratts					2	0	9	0
Brace						22	15	16

Presentations represent a substantial investment in operational energy: each requires an average of 2 hours for preparation, travel, and delivery.

Summary of medications used
(1994)

VD Clinic

Bicillin (1.2 m.u.)	85	syringes
Spectinomycin (2g)	22	vials
Amoxicillin (500mg)	921	capsules
Benadryl (50mg)	300	capsules
Erythromycin(250mg)	13476	tablets
Rocephin (250mg)	9	vials
Doxycycline	32712	capsules
E-Mycin (333)	4610	tablets
Suprax (440mg)	964	tablets
Metronidazole(500mg)	4400	tablets
Ofloxacin	182	tablets (160 @ 400mg and 22 @ 300mg)

PART V

The traditional tables

"You can observe a lot by watching"

Yogi Berra

EAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	MONTHLY AVERAGE	ANNUAL TOTAL
991	70	60	66	52	63	86	49	52	88	80	58	52	65	776
992	54	65	72	40	53	35	52	60	39	78	32	54	53	634
993	29	39	26	29	25	47	37	70	33	51	36	95	43	517
994	74	27	56	50	43	65	102	100	63	74	55	64	64	773
995														
996														
997														
998														
999														
000														
001														
002														
003														
004														
005														
006														
007														
008														
009														
010														
011														
012														

Reported Gonorrhea Cases, By Month, 1973-1990

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Monthly Average	Annu Tota
1973	175	150	102	93	122	122	134	149	188	124	146	93	133	159
1974	110	79	108	133	138	143	203	198	127	155	101	134	135	162
1975	133	138	122	145	116	126	191	186	171	124	82	146	140	168
1976	140	119	154	138	158	155	185	174	246	131	213	165	165	19
1977	193	117	133	182	161	215	134	193	149	145	212	164	167	199
1978	134	124	107	128	112	134	119	136	129	137	137	118	126	151
1979	161	106	97	106	105	117	130	175	166	117	136	109	127	152
1980	164	149	73	118	109	122	156	170	98	118	126	117	127	15
1981	117	120	126	118	140	174	137	148	99	144	128	86	128	1
1982	95	96	98	83	94	127	115	149	118	97	94	97	105	126
1983	113	97	108	97	87	98	118	110	128	148	90	86	107	128
1984	96	115	161	127	105	113	153	142	113	133	131	136	127	152
1985	98	96	98	138	132	127	179	155	127	157	97	126	128	15
1986	97	96	96	98	94	99	99	148	119	124	97	98	105	12
1987	79	80	98	93	98	98	99	92	73	67	58	66	83	10
1988	92	75	72	58	79	79	59	86	86	88	94	58	77	92
1989	56	40	59	75	66	79	77	93	85	81	80	70	72	86
1990	69	35	39	67	76	62	68	97	71	87	85	84	70	84

Monthly Venereal Disease Morbidity Report

Calendar 1994

Reporting Source	Morbidity				Age Group										Race			Pro	RX
	Syphilis			Gon	14-19		20-24		25-29		30-39		40+		Cau	Blk	Other	Syph	Gon
Categories	P&S	E.L.	Other		Syph	Gon	Syph	Gon	Syph	Gon	Syph	Gon	Syph	Gon					
Private Physician Men	1		4	59		16		18		10		11		4	16	41	7		
Women			4	119		62		36		11		8		2	45	54	24		
V.D. Clinic Men	2	1	2	184		46		63		33		28		14	20	148	21	2	206
Women	2	2	1	142		60		43		25		11		3	49	65	33	3	330
CHC/Pren/Family P.				21		9		6		2		4			9	7	5		
Planned Parenthood				6		3		1		1		1			2	3	1		
Health Hold																			
Fort Carson Men	1		4	166		30		98		25		11		2	14	149	8		
Women			4	70		26		27		8		8		1	20	52	2		
Peterson A.F.B. Men				4				4							2	2			
Women				3				2						1		2	1		
Air Academy Men																			
Women																			
Totals	6	3	19	774		252		298		115		82		27	177	523	102	5	536

Clinic Attendance: 5058
New: 2769
Return: 2289

Treatment Failure None

NOTE: Air Force cases are merged under one rubric (small numbers)
There were 3 prepubertal GC cases (females; Fort Carson)

MONTHLY V.D. CLINIC AND LABORATORY REPORT: EL PASO COUNTY HEALTH DEPARTMENT, 1994

	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEP	OCT	NOV	DEC	CY	POS.	PCT+
TESTING:															
HIV (Ab)	208	204	247	262	194	295	204	223	203	230	196	175	2641	11	0.4
HIV (CUMULATIVE)													18791		
RPR	288	265	367	336	283	307	310	348	299	307	269	292	3671	65	1.8
FTA	2	5	3	3	5	3	3	0	5	5	3	3	40	26	65
DF	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
GC SMEAR	115	163	150	174	172	121	157	141	163	161	133	158	1808	121	6.7
GC CULTURE:															
VDC MEN	148	165	218	157	154	158	207	241	246	231	210	193	2328	177	7.6
VDC WOMEN	198	178	261	221	213	206	245	232	241	229	198	207	2629	140	5.3
PNC WOMEN	15	13	18	12	18	12	21	42	42	30	41	37	301	3	1
FPC WOMEN	53	50	64	52	49	41	47	45	51	46	33	35	566	6	1
PMD WOMEN-Zeb	0	0	0	0	17	6	10	9	23	2	9	8	84	3	3.6
CHLAMYDIA: MEN	143	142	189	173	144	158	145	199	170	163	134	157	1917	226	11.8
CHLAMYDIA: FE	99	165	219	215	188	192	197	211	198	196	173	171	2224	207	9.3
TREATMENT:															
GC TREAT	35	15	18	17	14	19	37	41	28	32	11	25	292	N/A	
GC PRO-TREAT	22	35	36	36	43	72	67	52	50	39	41	43	536	N/A	
LUES TREAT	1	7	1	1	2	5	4	1	4	0	5	2	33	N/A	
LUES PRO-TREAT	0	1	1	0	0	0	1	1	0	0	1	0	5	N/A	
NON-V.D. TREAT	271	233	308	309	255	295	334	336	280	297	226	257	3401	N/A	
CLINIC: NO.	13	12	13	13	13	13	12	14	13	13	11	13	153	N/A	

HIV TESTING EXCLUDES THE 154 MILITARY POSITIVES SINCE JULY 1985 AND 40 REACTORS LOST TO FOLLOW-UP

MONTHLY G.C. INVESTIGATIONS REPORT: EL PASO COUNTY HEALTH DEPARTMENT, 1994

CONTACTS TO GONORRHEA: OUTCOME

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	CY 94	PCT/TL
											2 Months			
NOT INFECTED	0	0	0	1	1	1	0	0	0	0		0	3	0.5
BROUGHT - TX	15	10	8	20	11	10	15	23	15	13		17	157	26.9
PREVIOUS TX	8	1	10	9	9	13	4	16	9	13		17	109	18.7
NOT FOUND	9	3	5	6	13	4	3	6	13	4		17	83	14.2
REFUSED EXAM	3	0	0	1	0	0	0	2	1	1		2	10	1.7
UNLOCATABLE	8	6	4	9	4	4	6	7	13	5		5	71	12.2
TRANSFERRED	0	0	0	0	0	0	0	0	1	0		0	1	0.2
EPI TREATED	10	14	12	13	16	13	7	15	14	12		23	149	25.5
OTHER	0	0	0	0	0	0	0	0	0	1		0	1	0.1
TOTAL	53	34	39	59	54	45	35	69	66	49		81	584	100

MONTHLY CHLAMYDIA INVESTIGATIONS REPORT: EL PASO COUNTY HEALTH DEPARTMENT, 1994

CONTACTS TO CHLAMYDIA: OUTCOME

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	CY 94	PCT/TL
											2 Months			
NOT INFECTED	3	0	0	2	0	0	1	0	1	1		0	8	1
BROUGHT - TX	20	12	11	9	15	5	9	8	10	6		10	115	14.2
PREVIOUS TX	8	4	5	4	5	9	4	3	7	4		5	58	7.2
NOT FOUND	12	9	6	10	4	10	5	6	15	15		39	131	16.2
REFUSED EXAM	5	3	0	0	0	1	0	0	1	0		7	17	2.1
UNLOCATABLE	7	6	13	10	5	13	2	9	14	10		10	99	12.3
TRANSFERRED	1	0	0	0	1	0	1	0	0	0		0	3	0.4
EPI TREATED	29	30	42	40	44	18	14	19	56	29		55	376	46.6
OTHER	0	0	0	0	0	0	0	0	0	0		0	0	0
TOTAL	85	64	77	75	74	56	36	45	104	65		126	807	100