EL PASO COUNTY HEALTH DEPARTMENT
501 North Foote Avenue
Colorado Springs, Colorado 80909-4598

ANNUAL REPORT

Venereal Disease Program

January 1, 1983 - December 31, 1983

The investigator should have a robust faith-
and yet not believe.

Bernard

This Report is dedicated to the splendid

Fort Carson V.D. Control Program

(1980 - present)

PART I

Gonorrhea

Overview

For calendar year 1983 we report 1280 gonorrhea cases, a negligible increase of 17 cases over 1982. Although the aggregate disease burden is numerically similar in both years, pronounced differences in case distribution are noted. Most striking is the substantial decline in military cases (Way to go, Fort Carson!); since little change was observed in the public clinics sectors, the excess cases were reported by the private provider sector. Virtually no change occurred in the temporal distribution of cases, in the proportion of cases diagnosed in homosexuals or prostitutes (low), or in the proportion borne by whites. Hispanics gained in representation, with representation in blacks correspondingly declining. Cases identified via screening - almost exclusively women - increased substantially. Disturbingly, the number and proportion of women suffering complications of gonococcal infection, principally pelvic inflammatory disease (PID), increased. Consequently, 1) the male to female case ratio improved during 1983 and 2) the number of asymptomatic infections identified in heterosexual men increased.*

The following elaborates these observations. Part II deals with sexually transmitted diseases other than gonorrhea and with miscellaneous Program data.

I "Bravo, Fort Carson!"

The success story of 1983 was Fort Carson, enjoying a virtual 15 percent decline in gonorrhea incidence. The Army delegated management of the Fort Carson V.D. Clinic and Control Program to a civilian in the fall of 1979. The epidemiologic impact of this decision has been profound; assignment of a trained and motivated epidemiologist has resulted in superior clinic services, patient care, case-finding outcomes, and in the reduction of disease incidence among soldiers and the community at large. Though these successes were largely a consequence of Mr. Woodhouse's efforts, his successor (George Ware) has done a splendid job of sustaining this tradition of excellence. (Mr. Ware's assignment dates from mid-1982.)

For calendar year 1983, Fort Carson registered 519 cases of gonorrhea, a 14.8 percent decrease from 1982's 609 cases. Many reasons may account for this sudden decline: 1) the general downward trend in gonorrhea incidence nationally since late 1981; 2) random variation; or 3) the superior caliber of person being recruited by the Army (It may be that a high school diploma is a marker of lower risk for gonorrhea). Whatever the contributory influence of these factors, the reduction may nevertheless be due in larger part to vigorous case-finding efforts. Previous experience suggests that a

* Because women with PID and women cases detected by screening tend to have asymptomatic men as infected partners.

sudden decline in incidence may be expected two or more years after the institution of conscientious case-finding measures. Viewed from this perspective, Fort Carson's incidence was "due" for a decline in 1982 or 1983. Coincidence? We doubt it.

Fort Carson Gonorrhea Cases

(1973 - 1983)

Year	Men	Women	Total Cases	Percent of overall Cases in County
1973	510	50	560	(35)
1974	509	22	531	(32.6)
1975	506	33	539	(32)
1976	663	29	692	(35)
1977	697	48	745	(37.3)
1978	521	49	570	(37.6)
1979	571	50	621	(40.7)
1980	546	110	656	(43.2)
1981	528	115	643	(41.8)
1982	501	108	609	(48.2)
1983	431	88	519	(40.5)

Note that gonorrhea cases in men are 25 percent lower since the institution of civilian management at Fort Carson (use 1979 as base year; compare to 1983) and that superior case-finding has consistently identified more women cases (usually asymptomatic).

Overall gonorrhea incidence in El Paso County is about 37 percent lower than in 1977, the highest year on record; it's nice to report that Fort Carson male gonorrhea morbidity has finally "caught up" (38 percent decline from 1977 to 1983). We're very proud of the Army for its cooperation in the county-wide attack on gonorrhea.

II Fort Carson Gonorrhea Interviews (See Footnote)

Performance of this crucial component of case-finding efforts may be compared with previous experience. Before 1980, interviews were conducted by rotating enlisted personnel.

Year	No. of interviews	Contacts Elicited	Contact Index
1977	626	388	0.62
1978	570	419	0.74
1979	645	534	0.81
1980	574	865	1.5
1981	632	1144	1.8
1982	605	1100	1.8
1983	516	868	1.7

*Footnote 2. These tabular data differ slightly from those presented in the 1982 (Ten-Year) Annual Report on page 10. Careful analysis was done subsequent to the 1982 Report for a monograph on VD Control and the Army that has been accepted for publication. The basis for our error was confusing "military" with "Fort Carson" (i.e. including Air Force cases that should have been excluded). Blush!

Thus virtually 100 percent (516/519) of Fort Carson cases were interviewed and a superior contact index obtained. More remarkably, these impressive results were achieved under duress: the VD Program at Fort Carson was not only understaffed, but George Ware had additional communicable disease duties that his predecessor did not have! A fine tribute to Mr. Ware's talents as an employee.

III Fort Carson:Contact Tracing Outcomes

Superior contact interviewing is associated with superior contact tracing. Three markers are important: 1) the number of cases newly identified as a result of case-finding ("brought to treatment"); 2) the number of exposed persons preventively treated ("epi treated"); and 3) the proportion of contacts sought that could not be found.

Contacts to Fort Carson cases

Year	New Cases Identified ("Brought")	No. "Epi Treated"	Unable to locate
1977	70	79	42%
1978	53	42	50%
1979	57	81	55%
1980	119	82	36%
1981	235	195	29%
1982	199	160	27%
1983	148	157	29%

(Note:Data for column 3 recomputed (see Footnote 2)

The lower numbers for 1983 in columns 1 and 2 probably reflect the lower case burden at Fort Carson (See Section I above); you expect fewer "broughts" with fewer cases, although not necessarily proportionally, since so many contact reports (about 37 percent) are sent out of El Paso County. The key indicator is "Unable to locate": no change since the inception of improved case-finding.

Keep up the good work, Fort Carson!

IV Case Redistribution by Aggregate Report Source

The decline in Fort Carson gonorrhea cases was balanced by a substantial increase in cases emanating from the private provider sector and, surprisingly, from the U.S. Air Force. Virtually no change occurred in the public clinics sector. Seventy percent of the increase in the private sector affected women, with eighty percent of these excess women cases being routine discoveries. Since routine discoveries tend to be "historical" infections, an explanation readily suggests itself: many (most?) were acquired elsewhere and imported into El Paso County. As for the Air Force, whose share of the total GC burden rose from 1.3 to 3.3 percent (17 to 42 cases in 1983), random variation is the most plausible explanation.

Private Sector Gonorrhea Cases

	1982	1983	Pct. Chge
Men	54	79	+46.3%
Women	101	164	+62.4%
Total	155	243	+56.8%

Thus, private sector cases increased from 13.6 to 18.5 percent of the overall reported burden.

V. Gonorrhea by Reason for Presentation: 1976 - 1983

	1976	1977	1978	1979	1980	1981	1982	1983
Volunteers	1249(63.1%)	1243	924	958	871	794	732 (58%)	712 (55.6%)
Screenees	225(11.4%)	214	178	153	150	127	102 (8%)	153 (11.9%)
Contacts	504(25.5%)	541	413	414	499	616	429 (34%)	415 (32.5%)
Total	1978(100%)	1998	1515	1525	1520	1537	1263 (100%)	1280 (100%)

Gonorrhea cases are identified by screening (e.g., routine discoveries), spontaneous presentation with symptoms (e.g., discharge, pain in abdomen), or contact tracing. The 1983 data reflect the larger proportion of routine discoveries (reported in Section IV) - see "Screenees". The best indicator that vigorous case-finding was maintained is the proportion of patients identified as "Contacts".

VI. Gonococcal Pelvic Inflammatory Disease (PID)

Calendar 1983 saw an increase in the incidence of GC PID, regrettably. Trends since 1976 are recorded below:

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

Note: Percentage represents the proportion of all women with gonorrhea who have PID.

Ironically, two-thirds of the increase in PID from 1982 to 1983 occurred at Fort Carson (from 11 to 29 cases), again suggesting exogenous introduction since virtually 60 percent of the Fort Carson gonorrhea burden is imported. In support of this view are the temporal data: 49 percent of PID cases occurred in the third quarter, a time when people are travelling a lot.

VII Asymptomatic Men

The increase in routine discoveries and GC PID cases is mirrored in the increase of asymptomatically infected men for 1983.

Gonorrhea Cases in Men

Year	Asymptomatic	All Men*	Pct. Asymptomatic
1981	143	927	15.4
1982	116	814	14.3
1983	131	777	16.9

* (97 percent are urethrally positive; 3 percent rectally or pharyngeally

VIII Gonorrhea By Ethnic Group

The disease continues to be overrepresented in minorities. As expected, a decline in male cases from Fort Carson would generate a decline in the proportion of cases reported in blacks. This is precisely what occurred in 1983. Note that hispanics collected the balance. Don't know why.

	Percentage of Cases in...	
	1982	1983
Whites	35.4	35.0
Blacks	53.1	50.2
Hispanic/Other	11.5	14.8
Total	100.0	100.0

IX Unreported Cases

Since about 97 percent of all gonorrhea cases in El Paso County are interviewed for contacts, the opportunity to detect cases that had not been reported to the Health Department is excellent. Almost invariably, there are two reasons for non-report: 1) the test was a stat Gram stain by the physician, rather than a laboratory processed culture, or 2) a change in laboratory personnel ("Nobody told me to report!") occurred.

Year	GC Cases Not Reported (% of total cases)
1981	7 (0.45%)
1982	5 (0.4%)
1983	12 (0.94%)
Total	24 (0.58%)

X PPNG

There were 5 cases of penicillinase-producing N. gonorrhoeae reported in 1983; added to the 25 confirmed, and 7 probable, cases reported since 1976, generates a total of 37 cases. Considering that 12,616 cases of gonorrhea were reported during this interval (1976-1983), a burden of 0.3 percent is tolerable. This strain has mercifully refused to entrench itself in core populations, especially street prostitutes (2 of the 37 cases).

XI Gonorrhea in Homosexuals

There is little doubt that AIDS-phobia has affected the sexual habits of male homosexuals, especially pursuit of anonymous partners. This is reflected in the dramatic decline in gonorrhea cases among gay men. For the first 6 months of 1981, before the first report of AIDS (June 1981), 80 of 494 male cases (16.2%) occurred in gay men; for the last 6 months of 1981, it was 41 of 434 (9.4%) cases. The downward trend continued in 1982 and has stabilized since: 56 of 807 male cases (6.9 percent) in 1982 and 56 of 775 cases (7.2%) in 1983. That's a 55 percent decline in incidence! (We bet that the decline in GC incidence nationally since late 1981 is in good part due to Herpes-phobia among heterosexuals and to AIDS-phobia in gays.)

XII Gonorrhea Report Cases

Of the 1280 cases of gonorrhea reported in 1983, 89 were repeat episodes (6.9 percent); thus not much difference was observed from 1982 (6.8 percent).

In terms of bodies, 80 persons were repeaters; 73 had 2 episodes; five had 3 episodes each, and 2 had 4 each. Thus these 80 persons had 169 episodes in all.

Characteristics of repeaters:

a. 48 (60 percent) of the 80 repeaters are men .
b. 32 of 48 men repeaters (two-thirds) are military (all Fort Carson).
c. 7 of the 32 women repeaters (22 percent) are prostitutes; these 7 had 16 episodes in all.
d. 26 of 30 military repeaters (86.7 percent) are black; they account for 57 of the 169 total episodes (33.7 percent).

XIII Civilian Gonorrhea Interviews

Of the 719 civilian cases, 693 (96.4 percent) were interviewed and 1318 contacts elicited (1.9 per case). By gender:

Men	Contacts (Index)		Women	Contacts (Index)	
310	540	(1.74)	382	777	(2.03)

XIV Field Investigations

A total of 2242 investigation reports (2936s) were closed in 1983 (187 per month); 1706 (76.1 percent) were dispositioned "examined", with sixty percent of these done within 3 days of receipt of the report.

A total of 546 were newly identified infections, all for gonorrhea, except for 14 (syphilis). Thus about one quarter of investigation reports (2936s) result in a "brought to treatment" case (546/2242).

XV Gonorrhea in Street Prostitutes:

There were 242 visits to the clinic on the part of street prostitutes during 1983 (214 original visits and 28 follow-up visits). Thirty-one cases of gonorrhea (14.5 percent of original visits) were identified as a result. Historically...

Year	Visits	Cases	% Positive
1970-1975 (Averaged)	133 (Average)	39 (Average)	29.3 (Average)
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	198	27	13.6
1983	214	31	14.5
Total (14 years)	2828	592	20.9

PART II: Miscellaneous data

XVI V.D. Clinic Attendance

There was a slight increase in client visits during 1983, as follows:

Year	New Visits	Return Visits	Total
1982	2135	1721	3856
1983	2218	1691	3909 (+1.4%)

XVII Non-Reportable STDs in V.D. Clinic

Data for non-reportable STDs were first recorded in a systematic way during calendar 1982. For 1983 the outcomes are strikingly similar. The Table presents 1983 data, compared to 1982 data (in parentheses).

Infection	Male	Female	Total
Non-gonorrhea Urethritis	552 (569)	NIA (NIA)	552 (569)
Trichomoniasis	NIA (NIA)	492 (461)	492 (461)
Monilia	NIA (NIA)	463 (456)	463 (456)
Non-specific vaginitis	NIA (NIA)	279 (250)	279 (250)
Genital Herpes (First Episode)	83 (70)	59 (51)	142 (121)
Venereal warts	185 (131)	62 (55)	247 (186)
Scabies	21 (17)	4 (4)	25 (21)
Crabs	59 (56)	31 (29)	90 (85)

Note the 17.4% increase in genital herpes (probably not artifactual) and the one-third increase in warts (again, not artifactual).

The non-gonorrhea PID burden was the same: 34 cases each year.

The 1984 data will afford us a better opportunity to interpret trends; two years is insufficient.

PART III

The boring Tables

Exit Remarks

None of what appears above reflects the most remarkable achievement of the V.D Control Program in 1983: the maintenance of superb control efforts despite substantial staffing problems, both at Fort Carson (loss of one civilian position) and at the Health Department (much sick leave had to be taken). It is elegant testimony to the commitment of the many people involved in our Program who worked harder, and thus assured continued excellence. It would have been easier for the Wares, the Zimmermans, the McGrews, Fogles, the doctors and others to just let go. That none of them did is a fine tribute to them, the Program, and public health. We ought to all be very proud. Humbly submitted,

John Potterat	Christopher Pratts	Rita J. Dawson
Program Director	Epidemiologist	Office Manager

P.S. A special "Thank You" to the Colorado Department of Health (Fred Wolf and Beth Dillon especially) for extending case-finding help at a critical point in the Spring of 1983.

EL PASO COUNTY GONORRHEA MORBIDITY

1973 - 1983

By Month

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	L. Phillips → 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	Woodhouse → 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

Monthly Venereal Disease Morbidity Report

CALENDAR, 1983

Reporting Source	Morbidity				Age Group										Race			Pro RX	
	Syphilis			Gon	14-19		20-24		25-29		30-39		40+		Cav	Blk		Syph	Gon
Categories	P&S	E.L.	Other		Syph	Gon	Syph	Gon	Syph	Gon	Syph	Gon	Syph	Gon					
Private Physician Men	3		1	79		9	2	25	1	24		16	1	5	41	27	15		
Women		1	3	133	1	42	1	43		25		20	2	3	66	49	22		
V.D. Clinic Men	2			237		24		99	1	76	1	29		9	112	89	38	4	238
Women	2	1		204		69	1	74	1	43	1	15		3	84	86	37	1	237
CHC/Pren/Family P.			1	31		10		16		2		3	1		15	10	7		
Planned Parenthood				25		8		9		6		2			18	3	4		
Health Hold				10		2		3		5					6		4		
Fort Carson Men	1	3		431	1	50	2	256		100	1	20		5	65	324	46		
Women	1	1	3	88		19	3	49	1	16	1	4			30	46	17		
Ent Air Base Men				22		6		9		4		2		1	9	11	2		
Women				13		6		3		3		1			8	5			
Air Academy Men				6		1		2		2		1			3	3			
Women			1	1				1			1					2			
Totals	9	6	9	1280	2	246	9	589	4	306	5	113	4	26	457	655	192	5	475

Clinic Attendance: 3909 ($3896)
New: 2218
Return: 1691

ER Males: 22
ER Females: 63

Treatment Failure 9 clinic men; 4 clinic women

Above includes one case of prepubertal GC (female) and 5 of PPNG (2 women), all of exogenous origin.

District El Paso

Representative John Potterat

Month/Date Calendar 1983 Summary

Gonorrhea Morbidity

	Male	Female	Total
Civilian	316	403	719
Military	459	102	561
Total	775	505	1280

Gonorrhea Counseling

	Male	Female	Total
Public			
Private			
Military			
Total	NONE	NONE	NONE

Syphilis Interviews: OI 15 RI 12 CI 16

Consultation Visits: Lab 10 Health Dept/PHN 1 PMD 4

GC Interviews:	Male	# Contacts Initiated	Female	# Contacts Initiated	Total	# Contacts Initiated
Clinic Volunteer	165	281	168	364	333	645
PMD	65	81	126	219	191	300
Asymptomatic Male	59	149			59	149
Hospital Females						
PID			73	164	73	164
Repeaters	21	29	15	30	37	60
Total	310	540	382	777	693	1318
Military	457	740	99	178	552	918

Field Investigations:	# Closed	# Exam	0-3 Days	4-7 Days	"1"	"X"
Syphilis Contacts	41	29	20	3	4	8
Reactors	100	79	48	12	10	
Suspects, Associates						
Gonorrhea Cultures	349	337	217	56	175	
Gonorrhea Contacts	1752	1261	745	226	357	530
Other						
Total	2242	1706	1030	297	546	538

MONTHLY G.C.INVESTIGATIONS REPORT : EL PASO COUNTY HEALTH DEPARTMENT- 1983

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	CY83	PCT/TL
CONTACTS TO GONORRHEA: OUTCOME														
NOT INFECTED	1	2	3	2	2	2	2	4	5	0	2	4	29	1.65
BROUGHT - TX	31	32	44	31	24	27	21	24	37	29	24	33	357	20.35
PREVIOUS TX	24	27	35	22	11	19	27	38	36	34	34	27	334	19.04
NOT FOUND	1	3	48	25	9	23	9	52	24	2	41	47	284	16.19
REFUSED EXAM	0	0	9	7	3	6	3	5	0	2	9	8	52	2.96
UNLOCATABLE	3	0	26	21	6	11	7	18	5	7	10	6	120	6.84
TRANSFERRED	5	5	1	3	3	2	3	4	5	1	5	3	40	2.28
EPI TREATED	23	38	52	73	49	28	42	50	49	50	46	30	530	30.22
OTHER	0	2	0	0	0	0	2	1	0	2	1	0	8	0.46
TOTAL	88	109	218	184	107	118	116	196	161	127	172	158	1754	100

MONTHLY V.D.CLINICS AND LABORATORY REPORT: EL PASO COUNTY HEALTH DEPARTMENT 1983

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	CY83	POS.	PCT+
TESTING:															
RPR	177	184	252	288	256	212	241	274	237	258	201	172	2752	80	2.91
FTA	3	5	3	0	4	3	7	4	5	3	3	3	43	25	58.14
DF	1	2	0	1	0	1	1	0	0	0	0	2	8	1	12.50
GC SMEAR	156	112	169	177	161	128	125	179	145	152	113	118	1735	174	10.03
GC CULTURE:															
VDC MEN	194	146	238	222	199	153	160	235	181	200	141	151	2220	267	12.03
VDC WOMEN	106	104	114	152	119	95	102	116	151	130	96	87	1372	212	15.45
PNC WOMEN	46	34	45	36	30	31	30	35	34	30	22	22	395	2	0.51
FPC WOMEN	34	36	30	24	21	27	24	36	18	34	25	31	340	9	2.65
PMD WOMEN	222	204	181	208	254	189	210	285	200	212	214	263	2642	33	1.25
TOC :ALL PTS	36	21	24	31	37	39	43	43	41	39	41	26	421	22	5.23
TREATMENT:															
GC TREAT	45	33	50	51	47	46	52	38	66	70	35	32	565	NA	NA
GC PRO TREAT	31	35	40	51	49	21	31	54	45	56	50	12	475	NA	NA
LUES TREAT	1	3	2	0	0	0	1	1	0	1	1	1	11	NA	NA
LUES PRO TREAT	0	0	0	1	0	0	0	1	0	2	1	0	5	NA	NA
NON-V.D. TREAT	136	115	157	154	130	130	125	147	146	171	116	106	1633	NA	NA
CLINICS: NO.	13	12	13	13	13	13	13	14	13	13	11	13	154	NA	NA

EL PASO COUNTY HEALTH DEPARTMENT

501 NORTH FOOTE AVENUE • COLORADO SPRINGS, CO 80909

AIR POLLUTION CONTROL: 712 SOUTH TEJON, 80903 • 636-0137
CODE ENFORCEMENT: 105 EAST VERMIJO, SUITE 350, 80903 • 471-6878
DRUG TREATMENT PROGRAM: 710 SOUTH TEJON, 80903 • 636-0150
VITAL STATISTICS: 27 EAST VERMIJO, 80903 • 471-5762

V.D. Clinic

Summary of Medications Used

1/1/'83 - 12/31/'83

APPG (6 mu. vial)	184
BICILLIN (1.2 m.u. syringe)	49
TROBICIN (2g. vial)	101
BENEMID (500 mg.)	2,120
AMPICILLIN (500 mg.)	8,000
TETRACYCLINE (SHD)	1,200
TETRACYCLINE (CHD)	26,900
BENADRYL (50 mg.)	700
E-MYCIN (250 mg.)	400

Note: In addition, the following were provided to PMDs or CHC. (They are NOT included above):

TETRACYCLINE	(500 mg.)	1,600
AMPICILLIN	(500 mg.)	1,000
PROBENECID	(500 mg.)	200
BICILLIN	(1.2 m.u.)	25
TROBICIN	(2g.)	10