EL PASO COUNTY HEALTH DEPARTMENT
501 N. Foote Avenue
Colorado Springs, Colorado

ANNUAL REPORT

Venereal Disease Program

January 1, 1979 - December 31, 1979

He who desires but acts not,
breeds pestilence

Blake

FOR INTERNAL USE ONLY

PART I

To know the world,
one must construct it

Pavese

Gonorrhea in 1979

For calendar year 1979 we report 1525 cases of gonorrhea, compared to 1515 cases in 1978. A disappointing influx of gonorrhea in the summer of 1979 (third quarter) marred what should have been a continuing decrease in morbidity. As it was, this decline spanned two complete years, from July, 1977 through June, 1979.

It is recalled that a substantial decrease in gonorrhea morbidity occurred in 1978: from 1998 cases in 1977 to 1515 in 1978. This decrease continued, at an admittedly slower rate, for the first half of 1979:

Period	Cases	Percent Change
1-1-77 - 6-30-77:	1001	
1-1-78 - 6-30-78:	739	(- 26.2%)
1-1-79 - 6-30-79:	692	(- 6.4%)

Thus there were 30% fewer cases in 1979 than in the similar interval in 1977 - a respectable reduction.

What happened? What is meant by "influx of gonorrhea in the summer of '79"?

It is useful to compare case distribution in these similar years. Although the aggregate burden is similar - 1515 cases in 1978 and 1525 in 1979 - case distribution is dissimilar. What are the differences and do

these suggest an explanation? Temporal, age, race and reporting source case distribution indices should be compared for these two years.

A. Observations on Temporal Distribution: (Reference: Table A)

Gonorrhea morbidity declined in every quarter, except the third. The first two quarters are described above, where a 6.4% decrease was registered. A slightly more pronounced decrease occurred in the fourth quarter:

Fourth Quarter	Cases	Percent Change
1977	521	
1978	392	- 24.8%
1979	362	- 7.7%

The third quarter's increase was pronounced enough to veil the year's decreasing trend:

Third Quarter	Cases	Percent Change
1977	476	
1978	384	- 19.3%
1979	471	+ 22.7%

(Please note that the difference between 1979 and 1978 in this Table is 87 cases. We shall return to this later.)

B. Age Distribution: Negligible differences, requiring no discussion.

C. Observations on Race Distribution:

Since the inception of disciplined data collection in the early 1970s, we have known that El Paso County's share of gonorrhea cases borne by blacks has been disproportionate. (Official 1978 estimate: blacks comprise 5.94% of our population)

Percentage of Total Gonorrhea Cases Reported in Blacks

1973- 40.1%		1976- 39.2%
1974- 31.5%		1977- 38.7%
1975- 32.5%		1978- 41.6%
	1979- 47.7%	

What explanation can be recruited to account for this substantial recent change? We surmise it has a good deal to do with the volunteer Army. This latter relies heavily on "brown people" to fill its ranks. Although we are denied access to data on race distribution among Fort Carson Army personnel, anecdotal experience supports the view that an entirely disproportionate share of soldiers are black and hispanic. Is this sensitive ethnic business relevant?

In El Paso County 60% of male gonorrhea cases occur in military personnel, the vast majority of these in Fort Carson (Army) soldiers. An indicator of race distribution changes in Army personnel since the inception of the volunteer concept in 1974 (Its impact was not apparent until 1976 since many draftees were still inducted in 1974 and had to complete their 2 year commitment) is reflected in the Table below.

Fort Carson Male Gonorrhea Cases
By Race and Percentage
1974 - 1979

	BLACK	CAUCASIAN
1974	275 (54%)	244 (46%)
1975	277 (54.7%)	242 (45.3%)
1976	394 (59.4%)	278 (40.6%)
1977	423 (60.1%)	279 (39.9%)
1978	353 (67.7%)	177 (32.3%)
1979	432 (75.7%)	149 (24.3%)

Note: Neither our office nor Fort Carson's V.D. Program differentiate "caucasian" from "hispanic". The latter is included as "caucasian". Currently, probably one third of Fort Carson "caucasian" gonorrhea cases occur in hispanics.

Thus, with Fort Carson cases accounting for 60% of male gonorrhea cases in El Paso County (and 40% of the total cases), changes in military demographics should be influential. Much of the change in race distribution of cases in El Paso County for 1979 can be attributed to the black, military male.

D. Observations on Reporting Source:

In comparing differences between 1978 and 1979, one discerns once again the presence of the military.

Gonorrhea Cases By Aggregate Reporting Source and Gender

1978, 1979

	1978	1979	Difference	Percent Change
Civilian Males	428	404	-24 cases	-5.6%
Civilian Females	498	472	-26 cases	-5.2%
Military Males	536	598	+62 cases	+11.6%
Military Females	53	51	- 2 cases	- 3.8%
TOTALS	1515	1525	+10 cases	+ 0.66%

Though the numbers are small, the decline occurred in the civilian sector, the increase in the military. Had Military Males registered the same rate of decline as the other categories (say, 5%), total Military Males for 1979 would have been 509 cases instead of 598. Thus the military contributed circa 89 "excess" cases.

This is not a "sour grapes" observation to the effect that our 1979 morbidity should have been 1436 instead of 1525 cases (1525 - 89 "excess" cases = 1436). It is a way of suggesting the idea of exogenous influx of gonorrhea into El Paso County over which we exercise so little control.

The United States Army, unlike the Air Force, is very peripatetic. Tours are of relatively short duration (vs. more stable tours for Air Force personnel), the turn over substantial. Fort Carson soldiers travel a great deal - annual leave, holiday seasons, maneuvers in Europe and California. This combination of a very high risk population and great mobility generates a substantial influx of new cases, particularly at times when transfers occur frequently: the summer months.

The overall impression that remains in scrutinizing differences in case distribution for 1978 - 1979 is one of a continuing (endogenous gonorrhea) decrease and of an increasing (exogenous, mostly military) gonorrhea caseload.

Be that as it may - our disappointment not withstanding - the aggregate gonorrhea burden stands at pre - 1972 levels, despite a spectacular (+40%) increase in El Paso County's population since 1971.

Faithfully submitted

Rita J. Dawson
Office Manager

John Potterat
Director

Christopher I. Pratts
Epidemiologist

EL PASO COUNTY GONORRHEA MORBIDITY

1973 - 1979

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	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

TABLE A.

PART II

Gonorrhea Repeaters

We report 1525 cases of gonorrhea for Calendar 1979, a rate of 476 per 100,000 population. This rate was...

473/100,000 in 1978	590/100,000 in 1975
655/100,000 in 1977	572/100,000 in 1974
664/100,000 in 1976	560/100,000 in 1973

Of the 1525 cases, 280 (18.4%) represent infections in 124 people. Recidivism ranges from 15 - 20% annually.

Historically:

1978: 16.8%	1975: 14.5%
1977: 20.2%	1974: 19.5%
1976: 15.7%	1973: 17.7%

Our Program (At least by self-report!) is superb at gonorrhea control. Why is it, then, that our strategies seemingly have no impact on the repeater rate? For example, El Paso County recorded an 18% increase in morbidity between 1975 and 1976 and a 25% decrease between 1977 and 1978. Look at the above Table. For the former (1975 - '76), the repeater rate change was negligible; for the latter (1977 - '78), the change was singularly unimpressive! Explanation , please!

We have no explanation. A shot in the dark is all we'll venture:

a) There are two types of gonorrhea infectees - "core" and "non-core" patients. Core patients are transmitters; non-core patients are "victims". Something there is about core infectees that leads them to transmit disease and something there is about non-core (Infectees who seldom pass the infection on) that puts them on the periphery of the transmission cycle. Core people are hard to reach (Peripatetic lifestyle, sociopathic behavior, whatever); non-core much easier to reach before opportunities to transmit occur.

b) Control Programs that are effective reach the non-core easily, the core, with much difficulty and lack of success. Core infectees are disproportionately represented in repeater groups, ergo...

c) ...Even a good control program will impact repeater rates but slightly.

The above is based on little more than gut feeling and anecdotal information. Give it cautious credence.

Who are the repeaters for 1979? The tendency to repeat is most pronounced in black military males and white homosexuals:

a. 93 of 124 repeaters (75%!) are male

b. 55 of 93 male repeaters (59%) are military

c. 47 of 55 military repeaters (85.5%!) are black, with these accounting for 37.5% of <u>all</u> repeat episodes (105/280)

d. 13 of 23 white civilian male (56.5%) repeaters are homosexual. (Data unavailable on the other 8 white male repeaters - all military).

Female repeaters account for 25% of repeaters. Most (67.7%) are white, the rest black. Prostitutes account for 16% (5 of 31) of the female repeaters.

Of the 124 repeaters, 97 had 2 episodes each, 23 had 3 episodes each, 3 had 4 each and one (white homosexual) had 5.

Monthly Venereal Disease Morbidity Report

CALENDAR, 1979

Reporting Source	Morbidity				Age Group										Race			Pro	BX
	Syphilis			Gon	14-19		20-24		25-29		30-39		40+		Cav	Blk	Unk	Syph	Gon
Categories	P&S	E.L.	Other		Syph	Gon	Syph	Gon	Syph	Gon	Syph	Gon	Syph	Gon					
Private Physician Men	2	1	2	82		6	1	29		18	2	19	2	10	57	29	1		
Women	1		1	122	1	32		49	1	25		14		2	87	34	3		
V.D. Clinic Men	3	2		322		36	2	117	1	96	2	57		16	220	104	3	5	264
Women		1		270		92	1	98		49		28		3	197	70	4	5	269
CHC/Pren/Family P.				43		14		17		9		3			33	5	5		
Planned Parenthood				28		13		9		4		2			25	3			
Health Hold				9		2		5		2					6	1	2		
Fort Carson Men	5	4	2	571	2	81	6	352	1	104	2	28		6	149	432	1		
Women			3	50	1	13		32	1	4		1	1		14	35	4		
Ent Air Base Men				16		2		10		3		1			11	5			
Women																			
Air Academy Men				11		2		6		2				1	3	8			
Women				1		1										1			
Totals	11	8	8	1525	4	294	10	724	4	316	6	153	3	38	802	727	23	10	533

Clinic Attendance: 4367 ($1928.00)
New: 2201
Return: 2166

ER Males: 40
ER Females: 72

(Above includes 9 y/O female: vulvovaginitis)

Treatment Failures: 10 Clinic Males
2 PMD Males
5 Clinic Females
(Includes 1 PPNG and 2 possible PPNG)

Summary of Investigative and Interviewing Activities

CALENDAR 1979

Originating Agency	Investigations	Disposition of Persons Examined										Totals	Number of Interviews	Contacts Obtained	CT INDEX
		0	1	2	3	6	7	8	9	X	Y				
Armed Forces	Contact To: 1. Primary & Secondary Syph.	1								3		4	5	12	2.4
	2. Early Latent Syphilis	1				3		2		1		7	4	13	3.3
	3. Other Syphilis														
	4. Gonorrhea	5	57		42	126	9	66	4	81	2	392			
Private Physicians	1. Primary & Secondary Syph.	1				1				1		3	3	6	2
	2. Early Latent Syphilis	2								1		3	1	2	2
	3. Other Syphilis														
	4. Gonorrhea	2	22		12	27	10	2	2	80	1	158			
Public Cases (Clinic)	1. Primary & Secondary Syph.	4	1			3				1		9	2	7	3.5
	2. Early Latent Syphilis	1	1		1	1				2		6	3	3	1
	3. Other Syphilis														
	4. Gonorrhea	4	110		39	91	19	2	5	205	1	476	721	1230	1.7
Armed Forces Public & Private	Positive S.T.S.Follow-Up	54	13	1	57	3			1	1	3	134			
Clinic	Clinic Patient Field Follow-Up (Rechecks)	59	200		131	24	24	3	7	2		450			
Totals		134	404	1	282	279	62	75	19	378	7	1642	739	1273	1.7

# of Personal Visits with Private Physicians 21 # of Laboratory Visits 32 Contacts & Follow-Up Open at end of Month

1. Syphilis
2. Gonorrhea N/A
3. Other

Monthly Venereal Disease Laboratory Testing Report

CALENDAR, 1979

Tests	No.	Pos.	% Pos.	RX	Disp.	Pndg	V.D.Clinic Men	V.D.Clinic Women	private Physicians Men	private Physicians Women	Pren	CHC	P.P.C.	Health Hold	F.P.
VDRL(Routine)	3230	47	1.5%				1845	1385							
VDRL(Pre-Marital)															
FTA	47	19	40%												
Darkfield	13	6	46.2%												
GC Smear	1868	250	13.4%				1865 (249)					3(1)			
GC Culture	15419	720	4.7%				2329 (322)	1446 (262)	256 (32)	6941 (50)	403 (6)	273 (4)	2954 (17)	64 (10)	753 (17)
Trichamonas	408	85	20.8%												
Monilia	402	86	21.4%												
Gravindex	5		---												
Urinalysis	8		---												
Pap	310	2	0.6%	2	CLASS 3										
Rechecks	529	30	5.7%				225 (16)	272 (11)	15 (3)	17 (0)					

1 PPNG
12 Treatment Failures (Includes 2 possible PPNG)
17 Reinfections

CITY-COUNTY HEALTH DEPARTMENT COLORADO SPRINGS, COLORADO

ACTIVITIES REPORT

Clinic or Division Venereal Disease Clinic Month: DECEMBER Year: 1979

Section _____ MONTHLY DATA

TYPE OF ACTIVITY	JAN	FEB	MAR	APR	MAY	JUN	JLY	AUG	SEP	OCT	NOV	DEC
Clinic Attendance	436	284	331	456	347	365	348	333	419	379	347	322
Number Clinics	14	12	13	13	13	13	13	12	14	14	12	13
GC Testing	1864	1765	1573	1740	1576	1591	862	1858	1473	1345	1075	1319
Syphilis Testing	314	225	263	263	270	279	273	256	323	295	268	262
Non VD Testing	130	63	100	121	134	78	115	88	84	78	85	60
Syphilis Treatment	2	1	4	1	1	1	0	0	1	1	1	2
GC Treatment	97	43	44	48	48	70	52	71	68	62	50	55
Pro Syphilis	3	1	1	0	1	0	2	0	1	1	0	1
Pro GC	48	38	45	50	50	40	40	38	71	62	37	51
Non VD Rx	146	101	121	124	136	125	122	103	138	130	126	99
Syphilis Morbidity	1	1	4	3	3	1	1	2	2	4	3	2
GC Morbidity	161	106	97	106	105	117	130	175	166	117	136	109
GC Interviews	87	45	34	53	65	44	37	100	65	58	77	58
Syphilis Interviews	1	1	1	3	2	0	0	2	1	4	1	2
GC Investigations	86	65	74	81	71	67	47	104	139	121	83	94
Syphilis Investigations	2	5	5	6	1	1	0	2	2	2	5	2
Rechecks & Pos. Bloods	51	36	36	33	66	42	39	71	68	47	55	39
TOTAL ACTIVITIES												

CITY-COUNTY HEALTH DEPARTMENT COLORADO SPRINGS, COLORADO

ACTIVITIES REPORT

Clinic or Division Venereal Disease Clinic Month: DECEMBER Year: 1979

Section _____ CUMULATIVE DATA

TYPE OF ACTIVITY	JAN	FEB	MAR	APR	MAY	JUN	JLY	AUG	SEP	OCT	NOV	DEC
Clinic Attendance		720	1051	1507	1854	2219	2567	2900	3319	3698	4045	4367
Number Clinics		26	39	52	65	78	91	103	117	131	143	156
GC Testing		3629	5202	6942	8518	10109	10971	12829	14302	15647	16722	18041
Syphilis Testing		539	802	1065	1335	1614	1887	2143	2466	2761	3029	3291
Non VD Testing		193	293	414	548	626	741	829	913	991	1076	1136
Syphilis Treatment		3	7	8	9	10	10	10	11	12	13	15
GC Treatment		140	184	232	280	350	402	473	541	603	653	708
Pro Syphilis		4	5	5	6	6	8	8	9	10	10	11
Pro GC		86	131	181	231	271	311	349	420	482	519	570
Non VD Rx		247	368	492	628	753	875	978	1116	1246	1372	1471
Syphilis Morbidity		2	6	9	12	13	14	16	18	22	25	27
GC Morbidity		267	364	470	575	692	822	997	1163	1280	1416	1525
GC Interviews		132	166	219	284	328	365	465	530	558	635	693
Syphilis Interviews		2	3	6	8	8	8	10	11	15	16	18
GC Investigations		151	225	306	377	444	491	595	734	855	938	1032
Syphilis Investigations		7	12	18	19	20	20	22	24	26	31	33
Rechecks & Pos. Bloods		87	123	156	222	264	303	374	442	489	544	583
TOTAL ACTIVITIES												

APPENDIX

Fort Carson V.D. Control Program

The rear portion of this Annual Report includes a memorandum-cum-appendix dated 9-6-79. It describes some special gonorrhea control problems posed by Fort Carson's program.

Shortly after Labor Day, 1979 a specially trained, highly motivated Colorado Department of Health epidemiologist was assigned to the Fort Carson V.D. Clinic and Program. Below are recorded some productivity indices for 1979. A more detailed analysis awaits the passage of time: the epidemiologist has only been on duty 4 months.

A. Gonorrhea Contact Interviews (Fort Carson V.D. Clinic):

1978			1979		
Males	Contacts Obtained	CT Index	Males	Contacts	CT Index
524	394	0.75	605	494	.81
Females			Females		
46	25	0.54	40	40	1.00

Not much difference, is there? It is, however, illuminating to examine 1979 before and after the arrival of the new epidemiologist (Don Woodhouse):

B. Gonorrhea Contact Interviews (Fort Carson V.D. Clinic)

Month	Interviews	Contacts Obtained	CT Index	
Jan	58	30	0.52	
Feb	42	33	0.78	
Mar	48	38	0.79	
Apr	37	27	0.78	
May	49	20	0.41	
June	60	37	0.62	
July	57	37	0.65	
Aug	71	22	0.31	(The pits!)
Sep	75	73	0.97	
Oct	59	79	1.34	
Nov	51	81	1.59	
Dec	38	57	1.50	
Totals:	645	534	0.83	

Observations:
1) "Interviews" includes 605 males/40 females
2) Before Don Woodhouse: 422 int/244 cts = 0.58 Index
After Don Woodhouse: 223 int/290 cts = 1.3 Index
3) Don's performance is thus 2 1/4 times better, obtaining more contacts in 4 months than Fort Carson personnel got in the previous 8!

C. Note on "Exogenous" gonorrhea hypothesis (See text, first part of this report):

For the last 4 months of 1979, Don Woodhouse initiated 290 contacts, of which 116 (40%) were sent to other health jurisdictions for investigation. (Data for the first 8 months of 1979 are unavailable.)

D. Quality of Contacts Elicited:

1. For the first 8 months of 1979, 52 gonorrhea infections were identified via Fort Carson contact interviews. For the last four months, 47 were identified, a 1.8 times better "performance".

2. That we are still dealing with a population (soldiers) with many casual or anonymous sex partners is clear from the data:

For the first 8 months, 108 (52%) of 208 elicited contacts could not be examined (dispositions 6,7,8). For the last 4 months, 83 (47.7%) of 174 suffered a similar fate.

MONTHLY FIELD ACTIVITY REPORT

ADP GC MOBIDITY

Civilian	419	465	884
Military	599	53	652
Total	1018	518	1536

Region: EL PASO COUNTY

Month/Year: CY 1979

Representative: Potterat

Gonorrhea Morbidity

	Male	Female	Total
Civilian	404	472	876
Military	598	51	649
Total	1002	523	1525

Gonorrhea Counselling

	Male	Female	Total
Public	49	55	104
Private	4	5	9
Military			
Total	53	60	113

Gonorrhea Interviewing

Type	Male	# Contacts Initiated	Female	Contacts	Total	Contacts
Clinic Volunteer	221	310	195	359	416	669
PMD	14	20	116	204	130	224
Asymptomatic Male	54	116			54	116
PID			64	120	64	120
Repeater	35	70	21	29	56	99
PPNG	1	2			1	2
Total	325	518	396	712	721	1230
Military	605	494	40	40	645 (90%)	534

Field Investigations

Type	# Closed	# Exam	0-3 Days	4-7 Days	"1"	"X"
Syphilis Contacts	32	23	13	2	2	10
Reactors	97	89	20	17	12	6
Suspects, Associates	1					
Gonorrhea Cultures	342	335	210	49	201	
Gonorrhea Contacts	1034	675	383	140	196	364
Other						
Total	1506	75% 1122	626	208	411	380