



Memorandum

Date September 2, 1981

From Research Sociologist and Clinical Research Investigator

Subject Three City Survey of Sexual Behaviors and Inhalant Use among Kaposi's Sarcoma and Pneumocystis Carinii Pneumonia Patients, VD Clinic Patients, and Others

To Chairman, KSOI Task Force

ATTACHMENT B

The relationships among specific sexual practices, the use of inhalant sexual stimulants, and the development of Kaposi's Sarcoma and Pneumocystis Carinii Pneumonia in previously healthy homosexual men under 60 years of age are explored in this preliminary report.

Data gathered from male venereal disease clinic patients in New York City (Lower West Side Health Center), San Francisco (Municipal Clinic) and DeKalb County (Georgia), from bathhouse patrons in New York City, and from homosexual men on Castro Street in San Francisco during August 10-28, 1981, are compared with data gathered from 30 KS and/or PCP patients who were interviewed in New York City, San Francisco and Atlanta earlier in the year.

New York City. The sociodemographic characteristics and behavioral patterns of 19 homosexual men diagnosed with KS and/or PCP most closely resemble those of 20 bathhouse patrons, and least closely resemble those of 34 heterosexual VD clinic patients who visited the Lower West Side (Chelsea) Health Center and volunteered to participate in this survey. The 19 men with KS and/or PCP tended to be older than others; they also tended to have more sexual partners in the past year (before the onset of their illnesses), more single-exposure partners, and more sexual exposures in bathhouses.

| Variable | KS-PCP Patients (n=19) | Bathhouse Patrons (n=20) | Lower West Side Health Center Homosexual Patients (n=107) | Heterosexual Patients (n=34) |
|--------------------------|---------------------------|-----------------------------|--|---------------------------------|
| Age: \bar{X} = | 37.6 | 32.3 | 29.0 | 26.4 |
| range= | 28-52 | 24-50 | 19-54 | 19-35 |
| Md= | 36 | 30 | 28 | 26 |
| Married: | 5.3% | 0.0% | 3.9% | 25.0% |
| Race: White | 79.0% | 84.2% | 52.4% | 44.1% |
| Black | 5.3 | 0.0 | 27.6 | 32.4 |
| Hispanic | 15.8 | 15.8 | 20.0 | 23.5 |
| Partners in Past Year | | | | |
| \bar{X} = | 106.7 | 85.0 | 43.5 | 7.5 |
| range= | 1-360 | 5-250 | 1-1000 | 1-50 |
| Md= | 40 | 50 | 21 | 5 |
| Single Exposure Partners | 93.5% | 81.8% | 74.9% | 45.3% |

New York City (continued)

| Variable | KS - PCP Patients | Bathhouse Patrons | Lower West Side Health Center | |
|---------------------------|----------------------|----------------------|-------------------------------|-----------------------|
| | | | Homosexual Patients | Heterosexual Patients |
| Bathhouse Partners | 72.6% | 64.3% | 26.4% | 0 |
| Use Inhalants | 94.1% | 95.0% | 86.9% | 24.2% |
| Frequency of Inhalant Use | | | | |
| >10 * month | 29.4% | 30.0% | 19.6% | 6.0% |
| 1-10 * month | 29.4 | 45.0 | 31.8 | 9.1 |
| <1 * month | 35.3 | 20.0 | 35.5 | 9.1 |
| never | 5.9 | 5.0 | 13.1 | 75.8 |
| Usually Use: | | | | |
| Amyl Nitrite | 1 | 25.0% | 10.3% | 5.9% |
| No Name | - | 40.0 | 32.7 | 2.9 |
| Butyl Nitrite | 2 | 40.0 | 69.2 | 23.5 |
| Rush | (1) | (3) | (43) | (5) |
| Locker Room | (1) | (1) | (28) | (2) |
| Bolt | | | (3) | |
| Others* | (1) | (4) | (10) | (3) |

* Bullet, Black Jack, Disco-Roma, Grandmother's, Hardware, Head, Hit, Highball, Hombre, Kryptonite, Moma's Popper, Silver, Tonight, and Touch.

San Francisco. Differences in San Francisco are even more striking than those observed in New York City. Homosexual men diagnosed with KS and/or PCP tended to be older than clinic patients; they more frequently were white, and said that they had had greater numbers of different sexual partners in the past year, more single-exposure partners, and more sexual exposures in bathhouses. Although the percentages suggest large differences, the number of cases and number of heterosexual clinic patients interviewed in San Francisco are small.

| Variable | KS - PCP Patients (n=7) | Men on Cas- tro Street | San Francisco Municipal Clinic | |
|--------------------------|-------------------------------|---------------------------|--------------------------------|---------------------------------|
| | | | Homosexual Patients (n=112) | Heterosexual Patients (n=18) |
| Age: \bar{X} = | 36.4 | | 31.3 | 28.9 |
| range= | 22-49 | | 18-61 | 16-46 |
| Md= | 35 | | 30 | 29 |
| Race: White | 100.0% | | 72.1% | 17.7% |
| Black | 0 | | 9.9 | 64.7 |
| Hispanic | 0 | | 9.9 | 17.7 |
| Other | 0 | | 8.1 | 0 |
| Partners in Past Year | | | | |
| \bar{X} = | 123.9 | | 68.9 | 9.1 |
| range= | 50-260 | | 1-700 | 2-40 |
| Md = | 107 | | 45 | 4 |

San Francisco (continued)

| <u>Variable</u> | <u>KS - PCP Patients</u> | <u>Men on Castro Street</u> | <u>San Francisco Municipal Clinic</u> | |
|----------------------------------|--------------------------|-----------------------------|---------------------------------------|----------------------------|
| | | | <u>Homosexual Patients</u> | <u>Heterosexual Patien</u> |
| Single Exposure Partners | 92.6% | | 68.5% | 19.2% |
| Bathhouse Partners | 72.1% | | 43.2% | 0 |
| Use Inhalants | 100.0% | | 88.1% | 11.1% |
| <u>Frequency of Inhalant Use</u> | | | | |
| >10 * month | 85.7% | | 22.0% | 0.0% |
| 1-10 * month | 14.3 | | 33.0 | 5.6 |
| < 1 * month | 0.0 | | 33.0 | 5.6 |
| never | 0.0 | | 11.9 | 88.9 |
| <u>Usually Use:</u> | | | | |
| Amyl Nitrite | 0.0% | | 0.0% | 0.0% |
| No Name | 71.4 | | 34.8 | 5.6 |
| Butyl Nitrite | 28.6 | | 60.7 | 0.0 |
| Rush | (1) | | (29) | |
| Locker Room | | | (15) | |
| Bolt | | | (7) | |
| Other | (2) | | (18) | |

Atlanta (DeKalb County). As in New York City and San Francisco, the 4 homosexual men with KS and/or PCP in the Atlanta area were considerably different than the homosexual and heterosexual VD clinic patients interviewed at the DeKalb County Clinic. Of 188 men who were asked to participate in the survey, 125 gave their consent, and 91 of these men (72.8 %) were considered to be heterosexuals. Only 34 of the male clinic patients said that they had had sexual intercourse with another man in the past year.

| <u>Variable</u> | <u>KS - PCP Patients (n=4)</u> | <u>The DeKalb County Venereal Disease Clinic</u> | |
|-----------------------|--------------------------------|--|-------------------------------------|
| | | <u>Homosexual Patients (n=34)</u> | <u>Heterosexual Patients (n=91)</u> |
| Age: \bar{X} = | 34.5 | 28.1 | 26.8 |
| range | 25- 52 | 18-45 | 16-44 |
| Md= | 30.5 | 27.5 | 26.0 |
| Married: | 0.0% | 0.0% | 22.0% |
| Race: White | 100.0% | 97.1% | 41.6% |
| Black | 0.0 | 2.9 | 58.4 |
| Hispanic | 0.0 | 0.0 | 0.0 |
| Partners in Past Year | | | |
| \bar{X} = | 73.0 | 30.8 | 5.6 |
| range | 1- 250 | 0-250 | 1-30 |
| Md= | 21 | 7 | 3 |

Atlanta (continued)

| <u>Variable</u> | <u>KS - PCP Patients</u> | <u>DeKalb County Venereal Disease Clinic</u> | |
|--------------------------------------|--------------------------|--|----------------------------|
| | | <u>Homosexual Patients</u> | <u>Heterosexual Patien</u> |
| Single Expo- sure Partners | 85.8% | 71.9% | 32.2% |
| Bathhouse Partners | 35.6% | 29.8% | 0 |
| Use Inhalants | 75.0% | 88.2% | 12.1% |
| <u>Frequency of Inhalant Use</u> | | | |
| >10 * month | 25.0% | 32.4% | 0.0% |
| 1-10 * month | 50.0 | 14.7 | 1.1 |
| <1 * month | 0.0 | 41.2 | 11.0 |
| <u>never</u> | 25.0 | 11.8 | 87.9 |
| <u>Usually Use:</u> | | | |
| Amyl Nitrite | (0) | 20.8% | 0.0% |
| No Name | (0) | 20.6 | 2.2 |
| <u>Butyl Nitrite</u> | (1) | 82.3 | 7.7 |
| Rush | | 52.9% | 6.6% |
| Locker Room | | 23.5 | 1.1 |
| Bolt | | | |
| Others | | 47.1 | 1.1 |

Cases and Age-Matched Homosexual Clinic Patient Controls. In anticipation of a more formal case-control study, and a more rigorous analysis of these survey data, 19 controls from New York City, 7 from San Francisco, and 4 from Atlanta were randomly selected from the list of homosexual men who had visited venereal disease clinics in late August and participated in our survey of sexual practices and inhalant use. These men were matched as closely as possible with cases of KS and/or PCP for race/ethnicity and age as well as place. Matches were not perfect due to the limited number of VD Clinic patients in the older age groups. Consequently, 19 pairs were identical with respect to place, race/ethnicity, and age, and 7 were similar with respect to place, race/ethnicity, and age within 2 years of each other, but 2 pairs had to be formed with VD clinic patients 6 to 7 years older than matched cases, and the last 2 pairs had to be formed with hispanic VD clinic patients either identical to, or 4 years younger than, the remaining cases of KS/PCP in white homosexual men (see Appendix).

The 30 pairs of cases and controls averaged (\bar{X}) 37 years of age, but controls (\bar{X} =17.2 years) had engaged in regular homosexual activities for a slightly longer period of time than the cases (\bar{X} =14.5 years). Major differences were discovered with respect to sexual behaviors and the use of inhalant sexual stimulants in the two groups. Cases averaged twice as many different sexual partners in the year before they became ill (\bar{X} =106.2) than VD clinic controls (\bar{X} =50); they were also 2.5 times as likely to have had single-exposure partners and 8.5 times as likely to have had sexual exposures in bathhouses. Cases of KS and/or PCP had used inhalant sexual stimulants for a significantly longer period of time (\bar{X} =6.2 years) than controls (\bar{X} =3.0), and cases of KS and/or PCP used inhalant sexual stimulants more often ($Z=3.16$; $p<.001$).

Comparison of 30 Cases of Kaposi's Sarcoma and/or Pneumocystis Carinii Pneumonia with 30 VD Clinic Patient Controls in 3 Cities

| | <u>Age</u> | <u>Years of Regular Practice</u> | <u>Number of Partners Past Year</u> | <u>Single Exposure Partners</u> | <u>Bathhouse Partners</u> | <u>Years of Inhalant Use</u> | <u>Times Used</u> |
|----------|------------|----------------------------------|-------------------------------------|---------------------------------|---------------------------|------------------------------|-------------------|
| Cases | 36.9 | 14.5 | 106.2 | 100.4 | 75.0 | 6.2 | 5.8 |
| Controls | 36.7 | 17.2 | 50.0 | 40.0 | 9.0 | 3.8 | 3.0 |

Conclusion. This analysis is preliminary and incomplete. More data are coming from San Francisco, and, perhaps, Atlanta. In addition, these survey data on 416 controls for the growing number of cases interviewed will be more thoroughly examined in the future. However, we doubt that additional data and further refinements in analysis will alter these preliminary findings substantially. Similar results from the proposed case-control study of age-matched homosexual VD clinic patients, homosexual and heterosexual private physician patients, and friends of cases should be expected. Homosexual men diagnosed with KS and/or PCP have behaved quite differently than other homosexual and heterosexual men.

William W. Darrow, Ph. D.

Harold W. Jaffe, M.D.

Appendix

Cases: 30 Homosexual KS and/or PCP Patients

Controls: 30 Homosexual VD Clinic Patients

| <u>ID Number</u> | <u>Race</u> | <u>Age</u> | <u>Prac</u> | <u>Yr.</u> | <u>Once</u> | <u>Bath</u> | <u>Use</u> | <u>Times</u> | <u>ID Number</u> | <u>Race</u> | <u>Age</u> | <u>Prac</u> | <u>Yr.</u> | <u>Once</u> | <u>Bath</u> | <u>Use</u> | <u>Time</u> |
|------------------|-------------|------------|-------------|------------|-------------|-------------|------------|--------------|------------------|-------------|------------|-------------|------------|-------------|-------------|------------|-------------|
| 2 610 | Hisp | 28 | 7 | 40 | 40 | 40 | 10 | 5 | 1 1 114 | Hisp | 26 | 7 | 146 | 140 | 0 | 3 | 5 |
| 2 559 | White | 29 | 12 | 360 | - | 360 | 1 | 1 | 1 1 116 | White | 29 | 10 | 10 | 6 | 0 | 0 | 0 |
| 2 557 | White | 29 | 12 | 250 | 250 | 100 | - | 5 | 1 1 044 | White | 29 | 13 | 20 | 7 | 0 | 1 | 10 |
| 2 565 | White | 31 | 9 | 60 | 50 | 7 | 11 | 5 | 1 1 053 | White | 31 | 9 | 50 | 40 | 10 | 6 | 5 |
| 2 595 | White | 33 | 12 | - | - | - | - | 1 | 1 1 063 | White | 33 | 15 | 30 | 30 | 15 | - | 1 |
| 2 611 | Black | 33 | 15 | 2 | 0 | 0 | 1 | 5 | 1 1 064 | Black | 33 | 13 | 12 | 6 | 4 | 11 | 1 |
| 2 598 | White | 34 | 12 | 40 | 34 | 34 | - | 1 | 1 1 066 | White | 34 | 13 | 50 | 15 | 0 | 9 | 10 |
| 2 560 | White | 34 | 16 | 15 | - | - | - | - | 1 1 067 | White | 34 | 13 | 40 | 30 | 10 | 11 | 5 |
| 2 590 | Hisp | 34 | 4 | 8 | 0 | - | 1 | 1 | 1 1 060 | Hisp | 32 | 11 | 15 | - | 8 | 7 | 1 |
| 2 545 | White | 36 | 11 | 20 | 18 | 15 | - | 1 | 1 1 071 | White | 37 | 14 | 10 | 7 | 2 | 5 | 5 |
| 2 592 | Hisp | 37 | 18 | 1 | 0 | 0 | 10 | 10 | 1 1 072 | Hisp | 37 | 15 | 5 | 4 | 0 | 0 | 0 |
| 2 589 | White | 39 | 13 | 300 | 260 | 250 | 7 | 5 | 1 1 074 | White | 38 | 26 | 4 | 3 | 2 | 0 | 0 |
| 2 514 | White | 40 | 15 | 104 | 104 | 104 | 11 | 10 | 1 1 078 | White | 40 | 19 | 200 | 180 | 90 | 0 | 0 |
| 2 510 | White | 40 | - | 150 | - | - | 11 | 10 | 1 1 119 | White | 40 | 10 | 109 | 80 | 15 | 10 | 5 |
| 2 623 | White | 42 | 21 | 100 | 90 | 90 | 16 | 10 | 1 1 120 | White | 42 | 10 | 49 | 45 | 35 | 4 | 1 |
| 2 617 | White | 43 | 21 | 20 | 10 | - | 11 | 10 | 1 1 122 | White | 44 | 13 | 50 | - | 0 | 3 | 5 |
| 2 614 | White | 49 | 29 | 1 | 0 | 0 | 0 | 0 | 1 1 080 | Hisp | 45 | 27 | 15 | 10 | 2 | 0 | 0 |
| 2 616 | White | 51 | 17 | 100 | 100 | 0 | 3 | 1 | 1 1 123 | Hisp | 51 | 41 | 50 | 3 | 0 | 0 | 0 |
| 2 511 | White | 52 | 15 | 350 | 345 | - | - | 1 | 1 1 082 | White | 54 | 40 | 45 | 35 | 38 | 4 | 5 |
| 2 584 | White | 22 | 6 | 150 | 140 | 45 | 3 | 10 | 0 1 107 | Hisp | 22 | 6 | 7 | 6 | 1 | 3 | 1 |
| 2 533 | White | 31 | 10 | 100 | 75 | 50 | 3 | 10 | 0 1 025 | White | 31 | 15 | 20 | 15 | 0 | 11 | 5 |
| 2 587 | White | 33 | 10 | 125 | 120 | 110 | 9 | 5 | 0 1 012 | White | 33 | 12 | 50 | 40 | 10 | 1 | 5 |
| 2 516 | White | 35 | 14 | 260 | 250 | 250 | 5 | 10 | 0 1 167 | White | 35 | 13 | 400 | 300 | 0 | 1 | 5 |
| 2 515 | White | 38 | 18 | 50 | 50 | 0 | 10 | 10 | 0 1 048 | White | 38 | 12 | 25 | 20 | 20 | 0 | 0 |
| 2 584 | White | 47 | 24 | 75 | 70 | 70 | 5 | 10 | 0 1 179 | White | 47 | 34 | 20 | 18 | 18 | 16 | 5 |
| 2 525 | White | 49 | 28 | 107 | 100 | 100 | 3 | 10 | 0 1 184 | White | 55 | 38 | 20 | 15 | 10 | 3 | 1 |
| 2 624 | White | 28 | - | 1 | 1 | 0 | 3 | 5 | 2 1 019 | White | 28 | 3 | 7 | 5 | 0 | 3 | 1 |
| 2 618 | White | 25 | 6 | 30 | 13 | 0 | 0 | 0 | 2 1 011 | White | 25 | 7 | 4 | 3 | 3 | 0 | 0 |
| 2 583 | White | 33 | 11 | 250 | 200 | 100 | 9 | 10 | 2 1 029 | White | 34 | 11 | 4 | 2 | 0 | 5 | 5 |
| 2 576 | White | 52 | 20 | 11 | - | - | - | 5 | 2 1 034 | White | 45 | 25 | 12 | 6 | 10 | 3 | 5 |