# Genetic implications of percentage of SSA in the population

In the eighties and early nineties, it was widely held that homosexuals were about one in ten of the population. The strongest proponents of the "one-in-ten" figure were gay activists who used it in the campaign for gay rights. Hard on the heels of the "one-in-ten" theory came the "gay is inborn" theory. The two worked together to accomplish considerable changes in attitudes of legislatures, churches, and society in general. If it can be shown that a group of people making up such a large proportion of the population is being discriminated against for something it can do very little about (like skin colour), then people will tend to accept it needs special protections.

But the one-in-ten figure is a myth, though that is still not widely appreciated. There is no significant disagreement among modern sexologists over this issue now—the early numbers (derived from the surveys of Kinsey) are far too high. We shall see that a study of the true percentage of homosexuality gives strong support to an environmentally-induced homosexuality. We shall also see that one of the largest single groups for whom the 10 % figure may be true is clergy in the mainline Christian denominations.

# The Kinsey surveys

So how did the "one-in-ten" myth begin? In 1948 and 1953, sex researcher Alfred Kinsey published two volumes called *Sexual Behavior in the Human Male*<sup>1</sup> *and Sexual Behavior in the Human Female*.<sup>2</sup> Among Kinsey's many claims was this one: 13% of men and 7% of women in his study were more or less homosexual for "at least three years between the ages of 16 and 55." Kinsey said the figures represented measurements of "psychologic response"

and/or "homosexual experience"—that is, homosexual fantasy and same-sex contact to orgasm. The claim received huge media exposure.

Bruce Voeller, an associate professor at Rockefeller University and a non-practising homosexual, added the 13 % and the 7 % together and concluded that "an average of 10 % of the population could be designated as Gay...As a scientist I could see how handy it was to use the 10 % figure,"<sup>3</sup> he said. Voeller, thereafter, became openly gay and was a founder of the modern gay activist movement. He used the figure to drive the campaign for recognition and acceptance

As I became a national Gay leader I insisted to other Gay leaders that we needed to bring the message(s)... home to the media, to judges and legislators, to ministers and rabbis, to psychiatrists....I campaigned with Gay groups across the country for the Kinsey-based finding that "We are everywhere." This slogan became a National Gay Taskforce leitmotiv. And the issues became key parts of (our) national, political, educational and legislative programs...After years of our educating those who inform the public and make its laws, the concept that 10% of the population is gay has become a generally accepted "fact"...the 10% figure is regularly utilized by scholars, by the press, and in government statistics. As with so many pieces of knowledge (and myth), repeated telling made it so.

The problem was that Kinsey's figures were about four times too high.

What was wrong with Kinsey's work?

- It did not use random sampling, which mostly post-dated him.
- Kinsey had an ideological agenda. Paul Robinson, a historian and one of Kinsey's biographers, remarks "Kinsey assigned [prominence] to masturbation and homosexuality, both of which were objects of his partiality...[He had a] tendency to conceive of the ideal sexual universe according to the homoerotic model"<sup>4,5</sup> Kinsey was bisexual and was "a cryptoreformer spending his every waking hour attempting to

change the sexual mores...of the United States," although he maintained his only motive was scientific objectivity.<sup>32</sup> In this he was simply a profound liar. He was also a "masochist, who as he grew older pursued extreme sexuality ....by the late nineteen forties his risk-taking was becoming compulsive."<sup>31</sup>

• His research methods were probably unethical. Media commentators Reisman and Fink<sup>4</sup> challenge the research methods that obtained claimed orgasms from hundreds of children and infants.

The data are therefore quite suspect. Some of the best statistical investigators in the world—Cochran, Mosteller, Tukey—commenting on the Male and Female Reports, agreed that the procedures adopted by Kinsey and his team inflated the homosexual figures.

#### Modern surveys

By 2010, more than thirty surveys of homosexual occurrence were based on genuinely representative samples, mostly from Western countries (see Figures 8 to 11). The results are nowhere near 10%; they are about 2-3% including bisexuality. Included are recent Dutch figures, which are atypically high, but make almost no difference to the mean or spread of results.



#### Surveys and Dates



The middle line in all four figures represents the mean, and the two outside lines the standard deviations, which include about two thirds of the points. Individual points have error bars which are one standard error, as estimated from the sample size.



Surveys and Dates

Figure 9. The percentage of bisexuality and exclusive lesbianism among adult females in the West.



Surveys and Dates

**Figure 10**. The percentage of exclusive male adult homosexuality in (mostly) Western nations.

The surveys are randomised within the study countries, and record by sexual contact people who have always been exclusively homosexual or those exclusively homosexual in the twelve months

![](_page_2_Figure_10.jpeg)

Surveys and Dates

![](_page_2_Figure_12.jpeg)

before the survey. This is a rather restrictive definition, but there is little disagreement about what it represents. It is also fair, because few people identifying as homosexuals are celibate in any given year.<sup>6</sup> It therefore would make little difference if the criterion was self-identification instead. Bisexuality results also used a twelve month criterion. Many studies were omitted because they were of specialized groups, were not randomised, or because the type of data in the figures could not be extracted from them.

See footnote\* for literature sources for Figures 8-11.

So from about 1990 to 2010 about 1% of the adult male population was exclusively homosexual,<sup>7</sup> and about 0.6% of the adult female population was exclusively lesbian at any given time—a grand mean of 0.8% of the total adult population. If bisexuality is included the figure rises to  $2.9 \pm 2.0\%$  for men and  $1.8 \pm 1.3\%$  for women\* (the errors are standard deviations). Around 2.4% of the total adult population is homosexual, lesbian, or bisexual. The homosexual percentage is nowhere near one in ten of the population.

<sup>\*</sup> Figure 8 (Male bisexuality and Exclusive Homosexuality): R88,  $^{13}$  M88,  $^{14}$  H88,  $^{15}$  Fa89,  $^{10}$  D91,  $^{6}$  Ro91,  $^{17}$  Sp92,  $^{18}$  T92,  $^{19}$  L94,  $^{7}$  W94,  $^{20}$  C00,  $^{40}$  M005,  $^{41}$  Sa07,  $^{43}$  Pe08,  $^{42}$  Ku09,  $^{38}$  Figure 9 (Female Bisexuality and Exclusive Homosexuality): R88,  $^{13}$  M88,  $^{14}$  H88,  $^{21}$  K89,  $^{12}$  Re90,  $^{22}$  S92,  $^{23}$  T92,  $^{19}$  Sp92,  $^{18}$  D93,  $^{15}$  M93,  $^{15}$  L94,  $^{7}$  W94,  $^{20}$  P95,  $^{24}$  C00,  $^{40}$  M005,  $^{41}$  Sa07,  $^{43}$  Pe08,  $^{42}$  Ku09,  $^{38}$  Figure 10 (Male Exclusive Homosexuality): K71,  $^{25}$  S88,  $^{26}$  Fa89,  $^{10}$  F89,  $^{27}$  Ro91,  $^{17}$  A92,  $^{28}$  T92,  $^{19}$  S93,  $^{23}$  B93,  $^{29}$  D93,  $^{15}$  M93,  $^{15}$  L94,  $^{7}$  W94,  $^{20}$  K95,  $^{25}$  P95,  $^{24}$  S95,  $^{30}$  Sm03,  $^{39}$  M005,  $^{41}$  Pe08,  $^{42}$ , Mc10,  $^{45}$  Figure 11 (Female Exclusive Homosexuality): K71,  $^{25}$  M88,  $^{14}$  S88,  $^{26}$  A92,  $^{28}$  D93,  $^{15}$  S93,  $^{23}$  L94,  $^{7}$  W94,  $^{20}$  K95,  $^{25}$  P95,  $^{30}$  Sm03,  $^{39}$ , M005,  $^{41}$  Pe08,  $^{42}$  Mc10,  $^{45}$ 

### Implications for the nature/nurture debate

The percentage of homosexuality has important implications for the nature/nature debate.

As we showed in the last chapter (Figure 2), homosexual occurrence is too high, even at only 1%, to be caused by genetic mutation. Most conditions caused by mutation each affect only about 0.025% of the population. At 2.4% the chances of a genetically driven homosexuality are even remoter. Homosexuality fits much more naturally into that group of human behaviours which are predominantly psychological in nature.

Surveys of some high-density gay areas, such as parts of San Francisco, do come up with figures about equivalent to Kinsey's figure of 10%, so we might conclude that his research might be about right for some parts of some large metropolitan areas.

Since the year 2000, surveys have been done less by interested scientists, and more by census authorities in many countries, including Australia, Canada, and the United States. These surveys are now becoming quite predictable in their results, and changing little. The results are consistent with those above, but often used the criterion of self-identification.

Researchers at La Trobe University, Australia however, think that the responses of women may need further interpretation. A surprising proportion or women they have interviewed decline to be labelled straight, homosexual, bisexual, or asexual and since many also refused the term "unlabelled" it is not clear what that leaves! Perhaps they change their response according to the situation and have no fixed orientation. Others have commented that some women move about on the sexual continuum in a way that men would never do. Perhaps these categories are not the best way to survey women?

# Modern survey data scatter suggests minimal genetic contribution

There is another important feature of the data above (Figures 8-11). It is all very scattered compared with the mean. This is true for the exclusively homosexual data, which, more than bisexuality

could be expected to show strong genetic influence. The data was international and included the USA, the UK, France, Netherlands, Australia, Norway, Finland, New Zealand. If SSA is genetically dictated, it should be the same regardless of country, culture or social condition. How scattered would data be if they were from a trait we know is genetically fixed? **Figure 12** shows what the scatter is like for adult male height in many countries; (data from Wikipedia in mid 2010). Height is about 90% genetically influenced.

![](_page_3_Figure_12.jpeg)

Figure 12. Mean male height for more than 50 countries (alphabetical order). About the same relative scale as Figure 9

We can see that the data from a genetic trait are very much more tightly bunched than the exclusive homosexual data (Figures 10,11) in spite of the wide variety of cultures. SSA doesn't look very "genetic" at all. However perhaps the way the sensitive SSA questions were asked could vary from survey to survey and increase the scatter. We think this is probably not enough to give the 10-fold range in the scatter for exclusive SSA. The data scatter itself therefore seems to argue against genetic fixity.

## Do bisexuals really exist?

Recently academics have questioned whether bisexuals really exist. It's true that usually SSA or OSA predominates and exact equality of attraction is rare. But it's also true that when given the choice, many people will opt for bisexual as a category, or identity, and by the standard of being active with both sexes in the past year, they are clearly bisexual. Many say they get different fulfillment from each sex, and the experiences are quite different. Bisexual people do exist.

It is also true that many of those who have same-sex contact actually are married and identify as heterosexual. They are not part of the visible gay community, do not identify with it, and may actively dislike that lifestyle. In surveys which ask for self-identification they may say they are heterosexual. Of course this could have the effect of understating numbers of homosexuals—though this is not a problem if the criterion as above is actually sexual contact, or the alternative criterion of attraction is used.

The surveys of bisexual percentages come up with an interesting statistic. Of all homosexually active males, about 15  $\%\,$  are married.  $^{8\cdot11,46}$ 

A 1970 Kinsey Institute survey of females shows about 45 % of lesbians have been married, and about 45 % are currently married. About 10 % are single.<sup>12</sup> These are important statistics because they suggest that a significant amount of bisexuality is, in fact, homosexual behaviour by married homosexual men and women. We could probably say that most bisexuals are, in fact homosexuals and lesbians who are or have been married. But even the figure for bisexuality isn't anything near Kinsey's 10%.

### SSA increases show genetic contribution is not fixed

A published paper <sup>33</sup> drew on systematic US public surveys since 1988, showing the percentage of people having same-sex partners in the preceding year. This has significantly increased, as shown in **Figures 13 and 14**, for both men and women. However the number of exclusively homosexual men and women did not change significantly. The author thought changes were homosexual experimentation by the previously exclusively heterosexual, in today's more tolerant social climate. Other surveys in the United Kingdom gave conflicting results, but suggested an increase from about 1 % to 2.8 % in the five years from 1990 to 2000. There is no doubt a permissive society encourages greater experimentation. But this merely emphasises that most of today's homosexuality cannot be genetically driven.

![](_page_4_Figure_10.jpeg)

Figure 13. Percentage of males with same-sex partners

Dutch researchers<sup>38</sup> recently compared their occurrence data for 1989 and 2008. Bisexuality increased for men from 6.2% to 7.9% and for women from 1% to 5.5%. The results are very high and suggest a lot of experimentation. The irony is that Kinsey's wrong data led to greater permissiveness in the West and became a self-fulfilling prophecy. However, this shows again that SSA changes with social setting.

![](_page_5_Figure_1.jpeg)

Figure 14. Percentage of females with same-sex partners

## Drop in SSA with age shows genetic contribution is not fixed.

Homosexuality is not fixed, in fact it is far less stable than heterosexuality. Although the Kinsey surveys of 1948 and 1953 greatly exaggerated homosexual and bisexual numbers, they showed one interesting trend, also borne out by subsequent studies—a steady decline in homosexual fantasy and activity with increasing age compared with heterosexual percentages (see Figures 15 and 16). In other words, homosexual orientation and behaviour is not a static condition. This has significant implications for arguments that homosexuality is genetically determined. Whatever is genetically determined is by definition, unable to change within a generation.

Later studies (Figures 17 and 18)<sup>7</sup> from the large Chicago Laumann study, also show a strong decrease in homosexual behaviour, this time about four-fold (from age 35 to age 55), with a corresponding drop in those who identify themselves as homosexual or bisexual.

Could it be that the older "homosexual" people interviewed simply had not been so active? In that case why did they not retain

![](_page_5_Figure_8.jpeg)

Figure 15. Kinsey, 1948. Change in homosexuality with age in males. Class 6: exclusively homosexual, Class 5: predominantly homosexual, Class 4: mostly homosexual, Class 3: equally homosexual and heterosexual.

![](_page_5_Figure_10.jpeg)

**Figure 16**. Kinsey, 1953. Change in homosexuality with age in females. Class 6: exclusively homosexual, Class 5: predominantly homosexual, Class 4: mostly homosexual, Class 3 equally homosexual and heterosexual.

their homosexual identity? Do the graphs merely show a huge increase in "young" homosexuality in Western society in the last twenty years? What sociological experts call a cohort effect? No, because Kinsey's much earlier data show the same fall-off with age.

The unmistakable conclusion was that heterosexuality absorbed most of these homosexuals. Kinsey was pre-AIDS and the decline cannot have been due to deaths but change in behaviour and fantasy. The Laumann study<sup>7</sup> (Figures 17 and 18), when they used the SS Activity criterion, "If you haven't had sex with someone of the same gender in the past year, you are not homosexual," could potentially have misled. In the gay community, due to the emphasis on youth and appearance, it becomes harder to gain unpaid casual partners beyond middle age. Many have celibacy forced on them. This would account for a significant part of the declines in sexual activity his team recorded with age. However SS Attraction and Identity also show age decreases. Other surveys with different criteria also find the same decline, and a California public data set called CHIS showed the effect was not accounted for by SSA people shifting to "inactive" so it does seem to be real.

For some gays SSA is an extremely fundamental part of their identity. It is just possible that when desire, opportunity and

![](_page_6_Figure_4.jpeg)

Figure 17. Laumann et al. (1994) Changes with age in males

fantasy fade, some gays no longer call themselves gay so are not detected by surveys, even the biased ones of Kinsey.

We could sum up OSA/SSA differences like this: SSA tends to be much more intense and preoccupying, but overall, peaks and declines more steeply with age as well. OSA is a relatively sedate affair in comparison and much more readily tends to plateau and express itself to relatively old age.

Wherever the changed homosexual/bisexual behaviour goes —whether toward the heterosexual end of the Kinsey Scale (consistent with other research findings) or into inactivity—the change is considerable, and at odds with a genetically dictated condition stable throughout the life-span. We will look at spontaneous change in much more detail in Chapter Twelve.

#### Urbanisation strongly influences SSA development

The large Laumann Chicago study<sup>7</sup> asked where people had been brought up during ages 14 to 16 and whether they had any male homosexual partners during the last year. The percentages depended on the degree of urbanization; 1.2 % of the males surveyed who had been raised in rural areas reported having homosexual

![](_page_6_Figure_12.jpeg)

Figure 18. Laumann et al. (1994) Changes in homosexuality with age in women

partners during the last year; 2.5 % who had been raised in mediumsized towns reported having homosexual partners, and 4.4 % who had been raised in large cities reported being active homosexuals/ bisexuals (Figure 19). For women, the percentages were 0.7 %, 1.3 % and 1.6 %, respectively. In other words, where you were

![](_page_7_Figure_2.jpeg)

Figure 19. Laumann et al. (1994) Homosexuality is dependent on adolescent domicile, ages 14-16

brought up is quite an important factor in whether you end up having homosexual partners. For the sake of argument (Figure 20) let us imagine that the incidence of male homosexuality in rural areas (1.2%) is all due to genetic influence. If that were the case, geneticists would also expect 1.2% of the male population brought up in "big cities" to have a genetically based homosexuality, meaning that the homosexuality of the balance (3.2%) [4.4 minus 1.2] would be exclusively due to social factors. This means that the environmental factor (3.2%) is far more important than the alleged genetic factor (1.2%). For women the environmental factor (0.9%)[1.6% minus 0.7%], is slightly more important than the supposed genetic influence (0.7%).

In several other chapters we argue that it is entirely plausible that 90% of homosexuality is accounted for by environmental

![](_page_7_Figure_7.jpeg)

Figure 20. Contrast between city and country domicile, males only

factors. This very approximate comparison from the Chicago study supports that.

Similarly Frisch and Hviid in a study of 2 million Danes found that those who were born in cities were more likely to be in registered homosexual domestic partnerships than those born in the country.<sup>44</sup>

## SSA in the clergy—the real 10% case?

SSA is tearing apart a record number of churches worldwide. The Episcopalian church in the United States provoked a major rupture with Third World members of the Anglican communion in 1993 by appointing an openly gay bishop, Gene Robinson, who had divorced his wife and was living with a male partner. In 2010 the denomination elected a lesbian bishop. These steps are without historical precedent and probably because the electing bodies, particularly the clergy, contain many with SSA. Kinsey's 10% is a current *underestimate* of the percentage within the clergy in several denominations, particularly the Catholic and Anglican churches.

Malcolm Boyd, a US Episcopal priest said he met more gays in seminary than he ever met in Hollywood.<sup>34</sup> An anonymous US Catholic priest <sup>35</sup> said (Anon 1992) "At no time did I ever live

in a community where gays did not make up at least half of the community." In the year  $2000^{36}$  *The Times* (UK) reported that AIDS deaths among Anglican clergy were 10 times higher than the percentage in the whole population. There are reports of very high percentages of gay people in many theological colleges in the UK— a typical figure is 30%. These figures are anecdotal but Heckler-Feltz<sup>37</sup> report that AIDS deaths among US Roman Catholic priests are also about three times higher, though based on a rather incomplete survey. Of live clergy, 15% said they were homosexual and 5% bisexual.<sup>37</sup>

Incomplete as these figures are they seem very high compared with those for the general population. Why are people with SSA attracted to being clergy? Some may see it as a refuge—a "safe" place where they hope with God's help to vanquish a troublesome urge or habit. Or a place where they can avoid questions about why they don't have a girl friend or aren't married. Others may be seeking to move the church from within towards increasing acceptance of homosexuality in its priests. Others may be attracted to the idea of a "serving", i.e non-competitive male environment—males with SSA often prefer non-competitive settings. Kinsey did not find unduly high numbers with SSA in the clergy, so this seems a trend of the last few decades.

Of course there are many anecdotes about SSA within the clergy. The Roman Catholic priest who had a fatal heart attack in a gay sauna was in good company—two fellow priests who happened to be there were able to give him the last rites. Some situations are farcical. After the election of Episcopalian Bishop, Gene Robinson, a journalist at a press conference asked the spokesman "So if I am heterosexual, divorced, and living unmarried with a partner, I can now be an Anglican bishop?" The spokesman demurred, saying that they would want to look at that situation very closely. The press conference ended amidst journalists' laughter.

Before the Reformation, Luther reported that in Rome one cardinal was considered saintly because he confined his sexual attentions to women, rather than including boys as all the others did. In 2006 however, when the Catholic church was in the process of tightening standards to prevent continuing priestly homosexual Chapter Two: Genetic implications of percentage of SSA in the population

activity with young male teenagers, it found Anglican liberal views a barrier to further ecumenical talks. From Roman Catholicism's current official perspective, one sexually active SSA priest is too many.

#### Conclusion

Modern surveys show the homosexual percentage in Western adult populations is much lower than one in ten, except perhaps in particular groups such as Christian clergy. About 1 % of adult males are exclusively homosexual and about 0.6 % of adult women are exclusively lesbian. The figure for bisexuality and exclusive homosexuality combined, rises to about 2.9 % for males and 1.8 % for females, an average of 2.4 % of the total adult population. Much of the bisexual component could comprise homosexuals and lesbians who are or have been married, but, even then, the figure falls far short of Kinsey's 10 %. The figure in the West however is rising because increasing permissiveness encourages greater sexual experimentation. But this may be superficial social and sexual activity, passing with time, rather than expression of a structuredin orientation.

Both Kinsey's figures and modern surveys when interpreted show the genetic contribution to SSA is minor and the environmental contribution is much greater.

People move away from homosexual behaviour with age (meaning the condition cannot be life-long genetically determined). The data scatter is too high for homosexuality and bisexuality to sit easily in the genetic category, and the location of upbringing strongly influences SSA development, genetic factors being minor.

#### References

- 1. Kinsey AC, Pomeroy WB, Martin CE. 1948. Sexual Behavior in the Human Male. Philadelphia, W.B.Saunders
- 2. Kinsey AC, Pomeroy WB, Martin CE, Gebhard PH. 1953. Sexual Behavior In The Human Female. Philadelphia: W.B. Saunders
- Voeller B. 1990. Some uses and abuses of the Kinsey scale; In: *Homosexuality/ Heterosexuality*. ed. McWhirter DP, Sanders SA, Reinisch JO,. New York: Oxford University Press. 32-38 pp
- 4. Muir JG, Court JH. 1990. *Kinsey, Sex And Fraud*. Lafayette, Louisiana: Lochinvar-Huntington House
- 5. Robinson P. 1976. The Modernization of Sex. New York: Harper and Row
- Brown P. 1992. Dangers of monogamy. New Scientist 135 (21 November):38-9 (Abstr.)
- 7. Laumann EO, Gagnon JH, Michael RT, Michaels S. 1994. *The Social* Organization of Sexuality. Chicago: University of Chicago Press
- 8. Cameron P, Landess T, Cameron K. 2005. Homosexual sex as harmful as drug abuse, prostitution or smoking. *Psychological Reports* 95:915-61
- 9. Johnson AM, Wadsworth J, Wellings K, Field J. 1994. Sexual Attitudes and Lifestyles. Oxford: Blackwell.
- The Regents of the University of California. California Health Interview Survey 2005. 2007. Accessed September 2008.
- 11. Harry J. 1990. A probability sample of gay males. *Journal of Homosexuality* 19(1):89-104
- 12. Klassen AD, Williams CJ, Levitt EE. 1989. Sex and Morality in the U.S. Connecticut: Wesleyan University Press
- Ross MW. 1988. Homosexuality and mental health: a cross-cultural review. Journal of Homosexuality 15(1):131-52
- Michael RT, Laumann EO, Gagnon JH, Smith TW. 1988. Number of sex partners and potential risk of sexual exposure to human immuno deficiency virus. *Morbidity and Mortality Weekly Report* 37, 565-568
- Diamond M. 1993. Homosexuality and bisexuality in different populations. Archives of Sexual Behavior 22:291-310
- Dixon BW, Streiff EJ, Brunwasser AH, Haley CE, Freeman A, Green HG. 1991. Pilot study of a household survey to determine HIV seroprevalence. Morbidity and Mortality Weekly Report 40:1-5
- Rogers SM, Turner CF. 1991. Male-male sexual contact in the USA: Findings from five sample surveys, 1970-1990. Journal of Sex Research 28(4):491-519
- 18. Spira A, Bajos N, Bejin A, Beltzer N, Bozon M, Ducot B, Durandeau A, Ferrand A, Giami A, Gilloire A, Giraud M, Leridon H, Messiah A, Ludwig D, Moatti JP, Mounnier L, Olomucki H, Poplavsky J, Riandey B, Spencer B, Sztalryd JM, Touzard H. 1992. Les Comportements Sexuels En France. Paris: La Documentation Française
- Trocki KF. 1992. Patterns of sexuality and risky sexuality in the general population of a California county. *Journal of Sex Research* 29(1):85-94
- 20. Wellings K, Field J, Johnson A, Wadsworth J. 1994. Sexual behavior in Britain: the National Survey of Sexual Attitudes and Lifestyles. New York: Penguin

- 21. Harris Poll. 1988. *Survey for Project Hope*. New York: Louis Harris and associates
- 22. Research Triangle Institute. 1990. National Household Seroprevalence Survey Feasibility Study Final Report. RTI Report No. RTI/4190-01/01F. Research Triangle Park, North Carolina: Research Triangle Institute
- Sittitrai W, Brown T, Virulrak S. 1992. Patterns of bisexuality in Thailand. In *Bisexuality and HIV/AIDS*, ed. Tielman R, Carballo M, Hendricks A,. Buffalo: Prometheus Books. 97-117 pp
- Paul C, Dickson N, Davis PB, Yee RL, Chetwynd J, McMillan N. 1995. Heterosexual behaviour and HIV risk in New Zealand: data from a national survey. *Australian Journal of Public Health* 19:13-8
- Kontula O, Haavio-Mannila E. 1995. Sexual Pleasures. Enhancement Of Sex Life In Finland, 1971-1992. Aldershot, UK: Dartmouth
- 26. Sundet JM, Kvalem IL, Magnus P, Bakketeig LS. 1988. Prevalence of risk-prone sexual behavior in the general population of Norway. In *The Global Impact* of *AIDS*, New York: Alan R. Liss. 53-60pp
- 27. Forman D, Chilvers C. 1989. Sexual behaviour of young and middle aged men in England and Wales. *British Medical Journal* 298:1137-42
- 28. ACSF investigators. 1992. AIDS and sexual behaviour in France. *Nature* 360:407-9
- 29. Billy JOG, Tanfer K, Grady WR, Klepinger DH. 1993. The sexual behaviour of men in the United States. *Family Planning Perspectives* 25(2):52-60
- Sell RL, Wells JA, Wypij D. 1995. The prevalence of homosexual behavior and attraction in the United States, the United Kingdom and France. Results of national population-based samples. Archives of Sexual Behavior 24:235-48
- 31. Jones JH. 1997. Dr. Yes. The New Yorker August 25 and September 1:98-113
- 32. Epstein J. 1998. The secret life of Alfred Kinsey. Commentary January:35-9
- Butler AC. 2000. Trends in Same-gender sexual partnering, 1988-1998. Journal of Sex Research 37:333-43
- 34. Nicolosi J. 1991. *Reparative Therapy of Male Homosexuality*. Northvale, New Jersey: Jason Aronson, Inc.
- 35. Anon. 1992. Opinion. National Catholic Reporter December 18: Pages not cited
- Morgan C, Grimston J. 2000. Aids deaths 10 times higher among priests. The Times 5 March:unpaged
- Heckler-Feltz C. 2000. Survey of AIDS infection among priests shocks U.S. Catholics. *Ecumenical News International* 9 February:unpaged
- Kuyper L, Vanwesenbeeck I. 2009. High levels of same-sex experiences in the Netherlands: prevalences of same-sex experiences in historical and international perspective. *Journal of Homosexuality* 56(8):993-1010
- Smith AMA, Rissel CE, Richters J, Grulich AE, de Visser RO. 2003. Sexual identity, sexual attraction and sexual experience among a representative sample of adults. *Australian and New Zealand Journal of Public Health* 27:138-45
- 40. Cochran SD, Mays VM. 2000. Relation between psychiatric syndromes and behaviorally defined sexual orientation in a sample of the US population. *American Journal of Epidemiology* 151:516-23

- 41. Mosher WD, Chandra AD, Jones J. 2005. Sexual behavior and selected health measure: Men and women 15-44 years of age, United States, 2002. Advance Data From Vital and Health Statistics; No 362 Hyattsville, Maryland: National Center for Health Statistics
- 42. Pedersen W, Kristiansen HW. 2008. Homosexual Experience, Desire and Identity Among Young Adults. *Journal of Homosexuality* 54(1/2):68-102
- Santtila P, Sandnabba NK, Harlaar N, Varjonen M, Alanko K, von der Pahlen B. 2008. Potential for homosexual response is prevalent and genetic. *Biological Psychology* 77(1):102-5
- 44. Frisch M, Hviid A. 2006. Childhood family correlates of heterosexual and homosexual marriages: a national cohort study of two million Danes. *Archives of Sexual Behavior* 35(5):533-47
- 45. McCabe SE, Bostwick WB, Hughes TL, West BT, Boyd CJ. 2010. The relationship between discrimination and substance use disorders among lesbian, gay, and bisexual adults in the United States. *American Journal of Public Health*: (In Press) 1-8
- 46. Jeffries WL. 2009. Sociodemographic, Sexual, and HIV and Other Sexually Transmitted Disease Risk Profiles of Non Homosexual-Identified Men Who Have Sex With Men. American Journal of Public Health 99:1042-5