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Applying Total Quality Management to sexual minority tobacco control

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Thanks and disclaimers

- Special thanks to Mellanye Lackey, MSI, of the UNC Health Sciences Library
- All errors and mistakes are my own

From: Commercial Closet. [Accessed 26 Oct 2007.] Available from:
URL:<http://www1.commercialcloset.org/cgi-bin/iowa/portrayals.html?record=380>



1998,
OUT



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Why sexual minorities?

The Literary Digest for November 12, 1927 55



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Marvelous Mary Garden
writes:

"My teachers, Trubello and Richard Bartlesmy, all impressed upon me the solemn warning that I must always treat my throat as a delicate instrument. Yet every artist is under constant strain. Sometimes we get real relaxation in smoking a cigarette. I prefer Lucky Strikes—which both protects the throat and gives real enjoyment."

Marvelous Mary Garden

Smooth, mellow, fragrant
And 11,105* doctors say Lucky Strikes prevent throat irritation

WHAT is the quality that Antonio Scotti, Rosa Raisa, Lawrence Tibbett, Leon Rothier, Florence Macbeth, Holbrook Blinn, Mary Garden, and other famous singers, actors, broadcasters and public speakers have found that makes LUCKY STRIKES delightful and of no possible injury to their voices?

For the answer we turned to medical men and asked them this question:

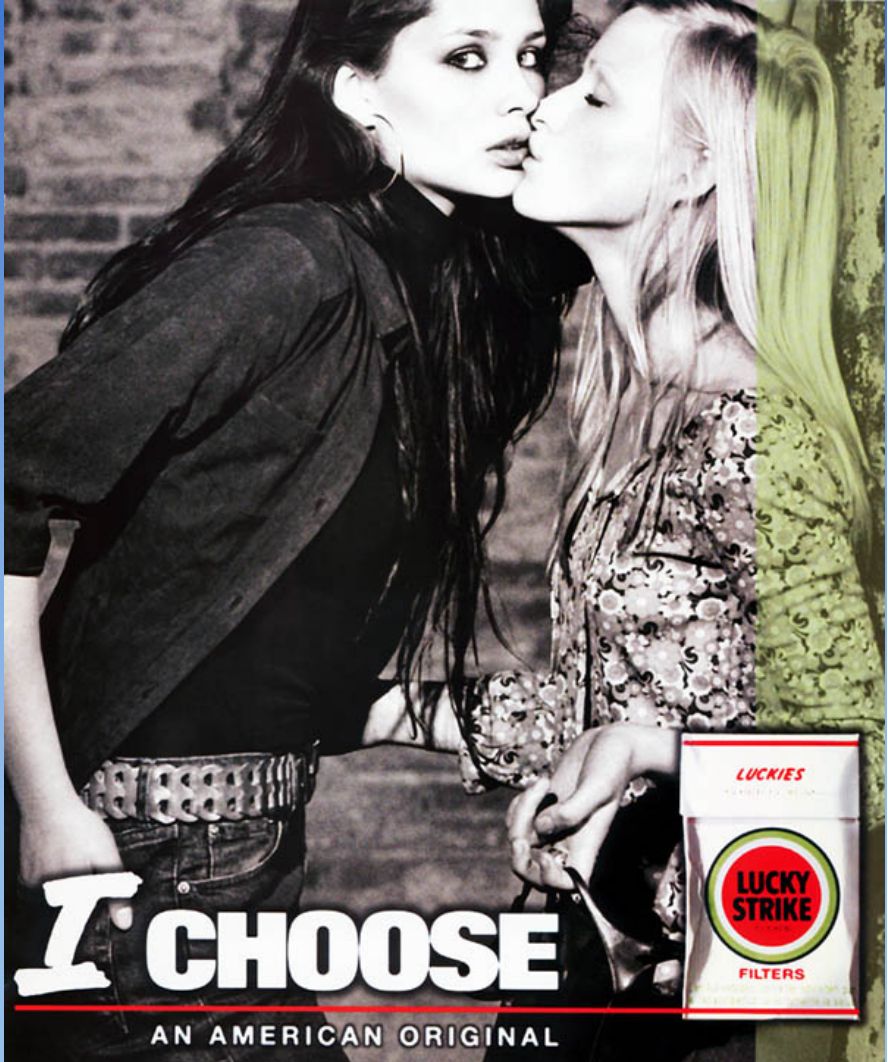
Do you think from your experience with LUCKY STRIKE cigarettes that they are less irritating to sensitive or tender throats than other cigarettes, whatever the reason?

11,105* doctors answered this question "YES."
Consider what these figures mean; consider that they represent the opinion and experience of doctors, those whose business it is to know.

"It's toasted"
No Throat Irritation—No Cough.




*We hereby certify that we have examined 11,105 signed cards confirming the above statement. LYBRAND, ROSS BROS & MONTGOMERY Accountants and Auditors New York, July 21, 1927.



I CHOOSE

AN AMERICAN ORIGINAL





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Previous Reviews

- Ryan H, Wortley PM, Easton A, Pederson L, Greenwood G. Smoking among lesbians, gays, and bisexuals: a review of the literature. *Am J Prev Med*. 2001 Aug;21(2):142-9.
- Hughes TL, Jacobson KM. Sexual orientation and women's smoking. *Curr Womens Health Rep*. 2003 Jun;3(3):254-61.



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1-800
QUIT NOW

ANSWERS. ADVICE.
REFERRALS.

Did You Know?

- LGBT's smoke at rates 40% to almost 200% higher than the general population.
- Tobacco companies have used LGBT civil rights leaders to help them frame smoking as a "freedom" so they can target us more successfully.
- If you call the quitline you are up to 5 times more likely to successfully quit smoking versus going cold turkey.
- One phone call can get you a FREE quit coach, FREE quit plan, and answers and support to help you quit smoking today.



National LGBT
tobacco control network
www.lgbttobacco.org

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Source: National LGBT Tobacco Control Network.
[Accessed 12 Oct 2007.] Available from:
URL:<http://www.lgbttobacco.org/files/POSTER.pdf>



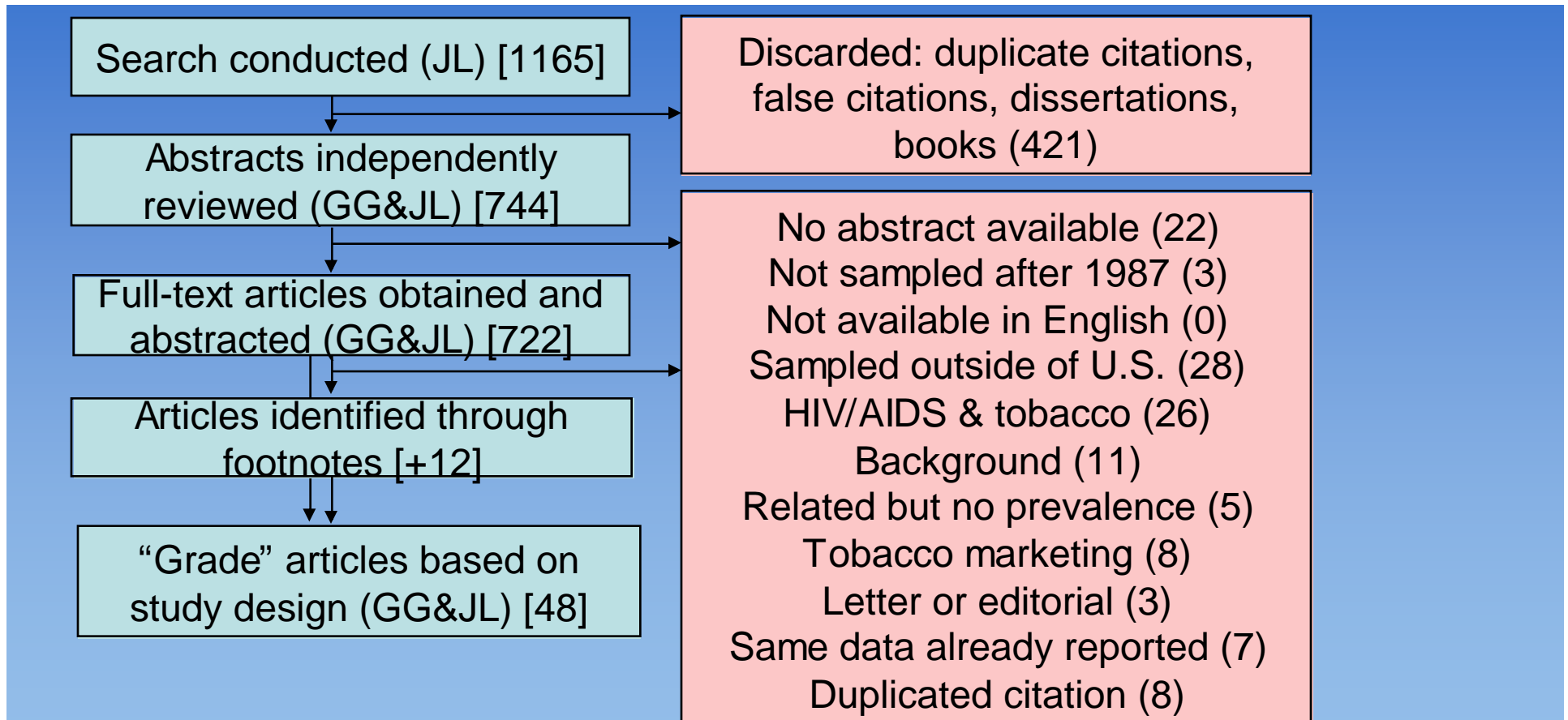
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Databases Searched

- CINAHL, 1987-2007
- Cochrane Library (via Wiley InterScience), 1987-2007
- **ERIC**, 1987-2007
- Health Source: Nursing/Academic, 1987-2007
- ISI Web of Science, 1987-2007
- **PsycInfo** (via EBSCO Host), 1987-2007
- PubMed (**MEDLINE**), 1987-2007
- ~~Office on Smoking and Health~~
- ~~EMBASE~~
- ~~Current Contents/Social and Behavioral Science~~
- ~~Current Contents/Life Sciences~~



Systematic Review Process



48 articles included



Search String

- (homosexuality OR **homosexual** OR **gay** OR “sexual minority” OR “female homosexuality” OR “homosexuality, female” OR **lesbian** OR bisexuality OR **bisexual** OR **transgender** OR transsexual OR transsexualism OR transsexuality OR MSM OR queer OR “**sexual orientation**” OR “men who have sex with men” OR WSW OR “women loving women” OR “women who have sex with women” OR lesbianism)

AND

- (**tobacco** OR **smoking** OR smoker OR **smokeless** OR lobeline OR cotinine OR **cigarette** OR **cigar** OR habits OR **habit** OR “addictive behavior” OR **addiction** OR nicotine OR ~~prevalence~~ OR ~~epidemiology~~)



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Some TQM Components

- Quality, not short-term
- Consumer orientation
- “The next process is your customer”
- Evidence-based
- Participatory
- Cross-function communication/management

Ishikawa K. Lu DJ, transl. What is total quality control? The Japanese way. Englewood Cliffs (NJ): Prentice Hall; 1985. p. 104.

Mays GP, Hatzell T, Kaluzny AD, Halverson PK. CQI in public health organizations. In: McLaughlin CP, Kaluzny AD. Eds. Continuous quality improvement in health care: Theory, implementation, and applications. Gaithersburg (MD): Aspen. 1999. pp. 360-403



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TQM Walkthrough

1. Why Tobacco Control *Is* an Issue for the LGBTQ Community
2. Tobacco Use
3. Disparities & Targets
4. Why We Use Tobacco
5. Countermeasures
6. Results
7. Standardization
8. Future Work



1. Tobacco Problem

Annex Table 16 Major burden of disease – leading 10 selected risk factors and leading 10 diseases and injuries, developed countries, 2000

Developed countries with very low or low child mortality levels (AMR-A, EUR-A, EUR-B, EUR-C, WPR-A)

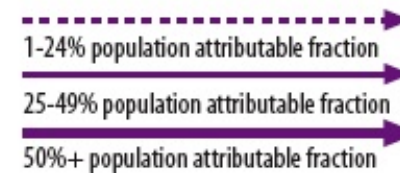
Risk factor	% DALYs	Disease or injury	% DALYs
Tobacco	12.2	Ischaemic heart disease	9.4
Blood pressure	10.9	Unipolar depressive disorders	7.2
Alcohol	9.2	Cerebrovascular disease	6.0
Cholesterol	7.6	Alcohol use disorders	3.5
Overweight	7.4	Dementia and other central nervous system disorders	3.0
Low fruit and vegetable intake	3.9	Deafness	2.8
Physical inactivity	3.3	Chronic obstructive pulmonary disease	2.6
Illicit drugs	1.8	Road traffic injury	2.5
Unsafe sex ^a	0.8	Osteoarthritis	2.5
Iron deficiency ^b	0.7	Trachea/bronchus/lung cancers	2.4

^a Unsafe sex disease burden is from HIV/AIDS and sexually transmitted diseases.

^b Iron deficiency disease burden is from maternal and perinatal causes, as well as direct effects of anaemia.

Preventive fractions due to alcohol and cardiovascular disease in some regions are not shown in these tables.

NB. The selected risk factors cause diseases in addition to those relationships illustrated, and additional risk factors are also important in the etiology of the diseases illustrated.

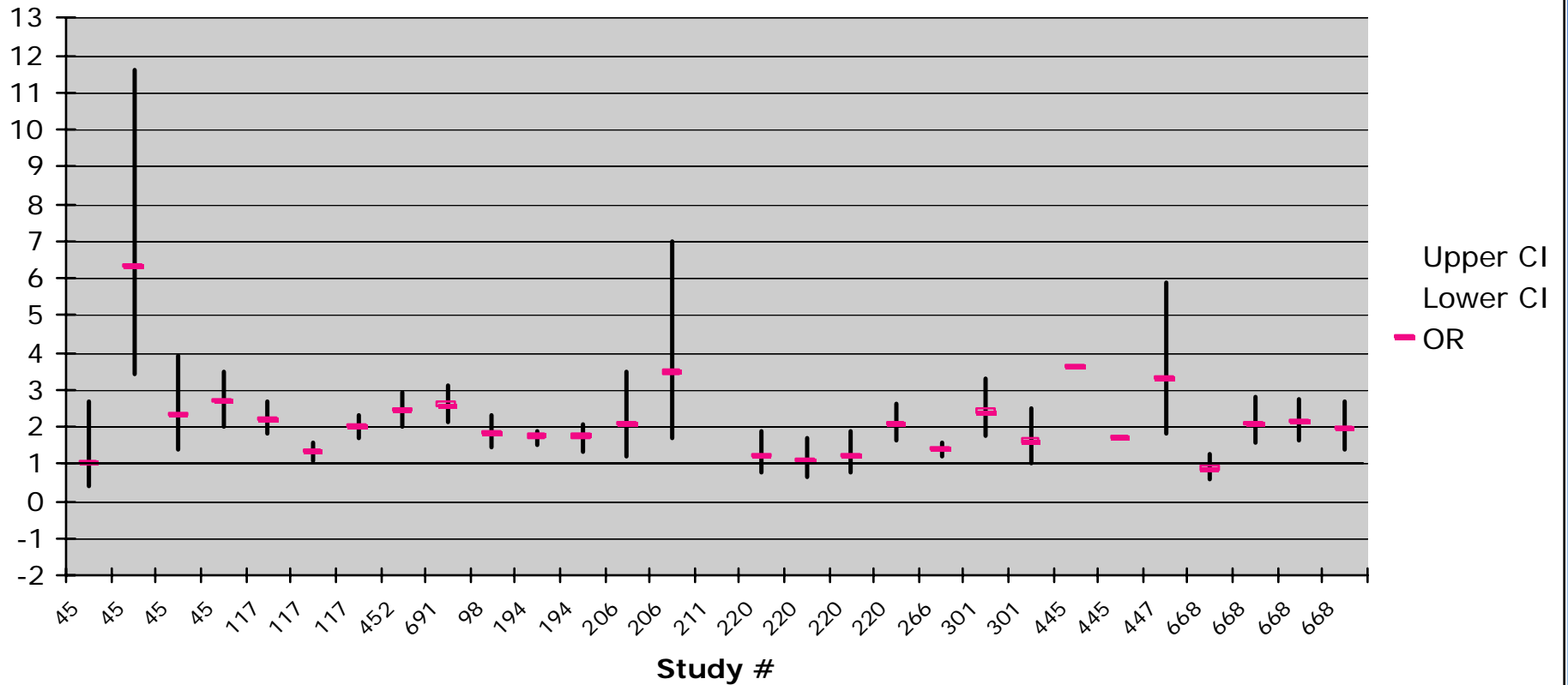


World Health Organization. World health report 2002. Annex table 16 major burden of disease – leading 10 selected risk factors and leading 10 diseases and injuries, developed countries, 2000. Available from: URL:http://www.who.int/whr/2002/en/whr2002_annex14_16.pdf



2. Use & Disparities

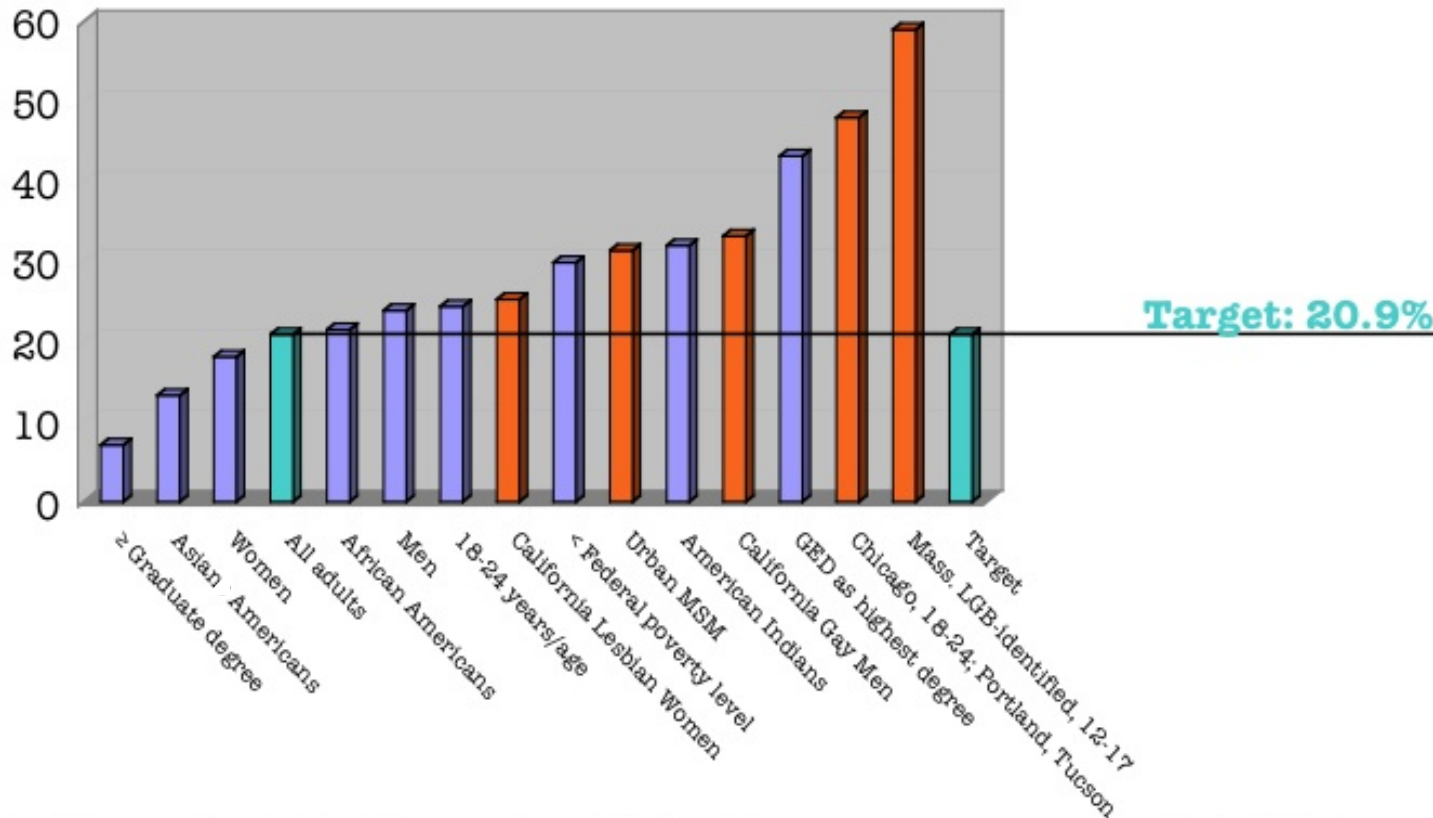
Odds Ratios (ORs) and 95% Confidence Intervals in 14 Studies





3. Targets

Smoking Prevalence (%) U.S. Populations



Centers for Disease Control and Prevention (CDC). Tobacco use among adults--United States, 2005. *Morb Mortal Wkly Rpt*. 2006 Oct 27;55(42):1145-8. Cited in: Tobacco Information and Prevention Source. Adult Cigarette Smoking in the United States: Current Estimates. Fact sheet, November 2006. [Accessed 10 Dec 2006.] Available from: URL: http://www.cdc.gov/tobacco/factsheets/AdultCigaretteSmoking_FactSheet.htm

California statistics (2001) from: Tang H, Greenwood GL, Cowling DW, Lloyd JC, Roeseler AG, Bal DG. Cigarette smoking among lesbians, gays, and bisexuals: how serious a problem? *Cancer Causes Control*. 2004 Oct;15(8):797-803.

Urban MSM (1999) statistic from: Greenwood GL, Paul JP, Pollack LM, Binson D, Catania JA, Chang J, Humfleet G, Stall R. Tobacco use and cessation among a household-based sample of US urban men who have sex with men. *Am J Public Health*. 2005 Jan;95(1):145-51.

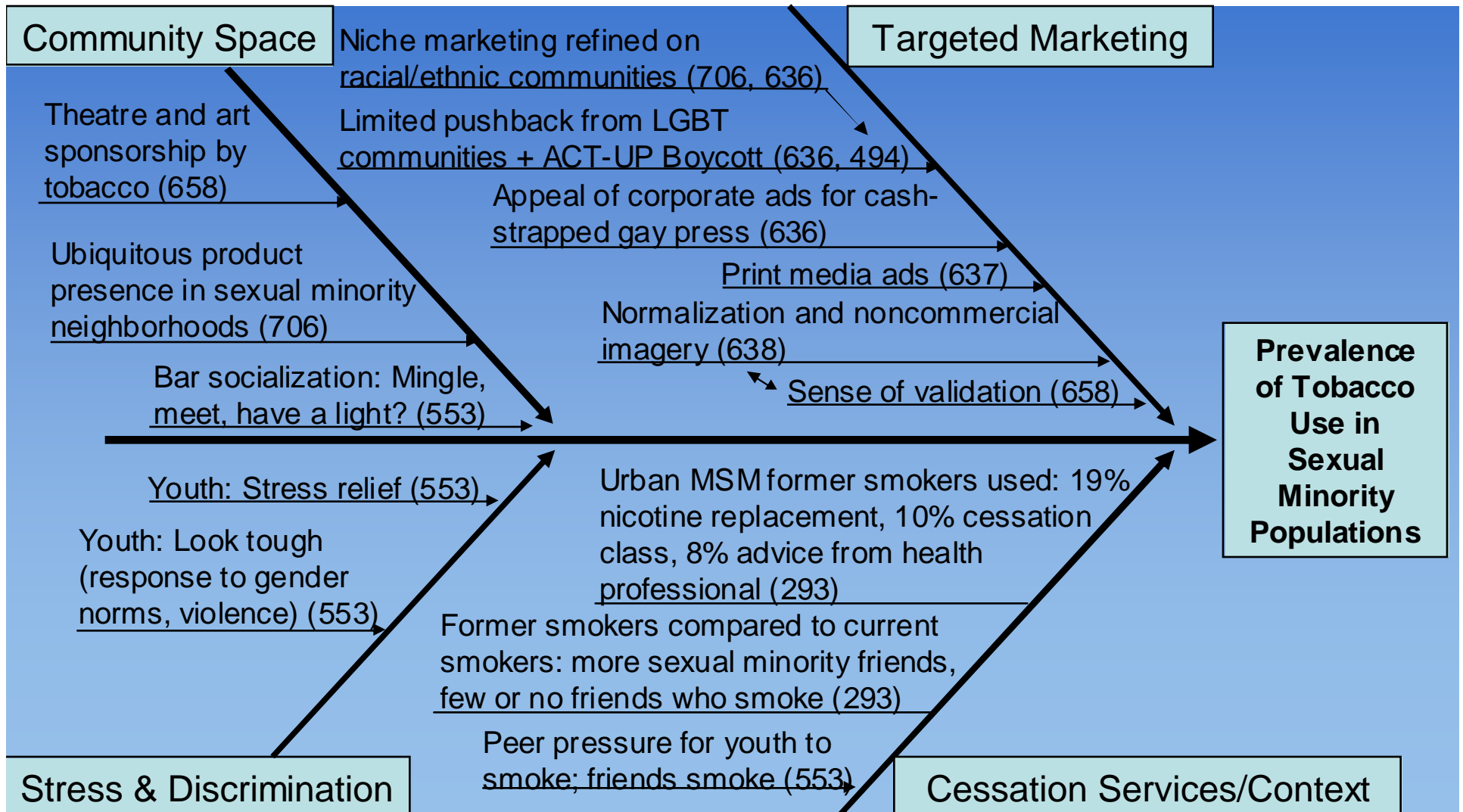
Chicago MSM statistic (2001) from: McKirnan DJ, Tolou-Shams M, Turner L, Dyslin K, Hope B. Elevated risk for tobacco use among men who have sex with men is mediated by demographic and psychosocial variables. *Subst Use Misuse*. 2006;41(8):1197-208.

Massachusetts YRBS (1995) statistic from: Austin SB, Ziyadeh N, Fisher LB, Kahn JA, Colditz GA, Frazier AL. Sexual orientation and tobacco use in a cohort study of US adolescent girls and boys. *Arch Pediatr Adolesc Med*. 2004 Apr;158(4):317-22.

Portland, Ore., and Tucson, Az., statistic (gay/bisexual men, 1992) from: Stall RD, Greenwood GL, Acree M, Paul J, Coates TJ. Cigarette smoking among gay and bisexual men. *Am J Public Health*. 1999 Dec;89(12):1875-8.



4. Etiology





5. Countermeasures

- Highlighting positive attributes of LGBT non-smokers (553, Remafedi 2007)
- 554, Remafedi & Carol 2005
 - Process (involve target population)
 - Strategies (smoke free events, interactive, no pressure)
 - General Strategies (self-esteem, social support, not stand-alone, role models)
- Boycott only judiciously (494, Offen et al 2003)
- Smoke-free bar ordinances
- 5 A's, Quit Line, pharmacological aids



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6. Results

- No published evaluations of sexual minority tobacco control efforts



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7. “Standardization”

- Data collection on sexual minority status in large, population-based surveys
- National promotion of best practices in sexual minority tobacco control (= National LGBT Tobacco Control Network)
- Utilization of evidence-based programs: 5 A’s, Quit Line, nicotine replacement



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8. Future Plans

- Inclusion in population-based samples
- Smoking and increasing numbers of partners with children
 - Only: Sanchez JP, Meacher P, Beil R. Cigarette smoking and lesbian and bisexual women in the Bronx. *J Community Health*. 2005 Feb;30(1):23-37.
 - 1996 National Household Survey on Drug Abuse (NHSDA)
 - National Health Interview Survey (NHIS)
- Quit Lines, data collection during intake
- Evaluations of cessation programs
- Transgender, racial/ethnic data

Pawelski JG, Perrin EC, Foy JM, Allen CE, Crawford JE, Del Monte M, et al. The effects of marriage, civil union, and domestic partnership laws on the health and well-being of children. *Pediatrics*. 2006 Jul;118(1):349-64.



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2005

freedom. to speak.
to choose. to marry.
to participate. to be.
to disagree. to inhale.
to believe. to love.
to live. **it's all good.**



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tobacco company*

No additives in our tobacco
does **NOT** mean a safer cigarette.

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By Pregnant Women May Result in Fetal
Injury, Premature Birth, And Low Birth Weight.

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From: Commercial Closet. [Accessed 26 Oct 2007.] Available from:
URL:<http://www1.commercialdozet.org/cgi-bin/iowa/portrayals.html?record=2346>



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References

- 45: Austin SB, Ziyadeh N, Fisher LB, Kahn JA, Colditz GA, Frazier AL. Sexual orientation and tobacco use in a cohort study of US adolescent girls and boys. *Arch Pediatr Adolesc Med*. 2004 Apr;158(4):317-22.
- 98: Burgard SA, Cochran SD, Mays VM. Alcohol and tobacco use patterns among heterosexually and homosexually experienced California women. *Drug Alcohol Depend*. 2005 Jan 7;77(1):61-70.
- 117: Case P, Austin SB, Hunter DJ, Manson JE, Malspeis S, Willett WC, et al. Sexual orientation, health risk factors, and physical functioning in the Nurses' Health Study II. *J Womens Health (Larchmt)*. 2004 Nov;13(9):1033-47.
- 194: Diamant AL, Wold C, Spritzer K, Gelberg L. Health behaviors, health status, and access to and use of health care: a population-based study of lesbian, bisexual, and heterosexual women. *Arch Fam Med*. 2000 Nov-Dec;9(10):1043-51.
- 206: Drabble L, Trocki K. Alcohol Consumption, Alcohol-Related Problems, and Other Substance Use Among Lesbian and Bisexual Women. *Journal of Lesbian Studies*. 2005;9(3):19-30.
- 211: DuRant RH, Krowchuk DP, Sinal SH. Victimization, use of violence, and drug use at school among male adolescents who engage in same-sex sexual behavior. *J Pediatr*. 1998 Jul;133(1):113-8.
- 220: Eisenberg M, Wechsler H. Substance use behaviors among college students with same-sex and opposite-sex experience: results from a national study. *Addict Behav*. 2003 Jul;28(5):899-913.
- 266: Garofalo R, Wolf RC, Kessel S, Palfrey SJ, DuRant RH. The association between health risk behaviors and sexual orientation among a school-based sample of adolescents. *Pediatrics*. 1998 May;101(5):895-902.
- 293: Greenwood GL, Paul JP, Pollack LM, Binson D, Catania JA, Chang J, et al. Tobacco use and cessation among a household-based sample of US urban men who have sex with men. *Am J Public Health*. 2005 Jan;95(1):145-51.
- 301: Gruskin EP, Gordon N. Gay/Lesbian sexual orientation increases risk for cigarette smoking and heavy drinking among members of a large Northern California health plan. *BMC Public Health*. 2006;6:241.
- 445: McCabe SE, Boyd C, Hughes TL, d'Arcy H. Sexual identity and substance use among undergraduate students. *Subst Abus*. 2003 Jun;24(2):77-91.
- 447: McCabe SE, Hughes TL, Boyd CJ. Substance use and misuse: are bisexual women at greater risk? *J Psychoactive Drugs*. 2004 Jun;36(2):217-25.



References

- 452: McKirnan DJ, Tolou-Shams M, Turner L, Dyslin K, Hope B. Elevated risk for tobacco use among men who have sex with men is mediated by demographic and psychosocial variables. *Subst Use Misuse*. 2006;41(8):1197-208.
- 494: Offen N, Smith EA, Malone RE. From adversary to target market: the ACT-UP boycott of Philip Morris. *Tob Control*. 2003 Jun;12(2):203-7.
- 553: Remafedi G. Lesbian, gay, bisexual, and transgender youths: who smokes, and why? *Nicotine Tob Res*. 2007 Jan;9 Suppl 1:S65-71.
- 554: Remafedi G, Carol H. Preventing tobacco use among lesbian, gay, bisexual, and transgender youths. *Nicotine Tob Res*. 2005 Apr;7(2):249-56.
- 636: Smith EA, Malone RE. The outing of Philip Morris: advertising tobacco to gay men. *Am J Public Health*. 2003 Jun;93(6):988-93.
- 637: Smith EA, Offen N, Malone RE. What makes an ad a cigarette ad? Commercial tobacco imagery in the lesbian, gay, and bisexual press. *J Epidemiol Community Health*. 2005 Dec;59(12):1086-91.
- 638: Smith EA, Offen N, Malone RE. Pictures worth a thousand words: noncommercial tobacco content in the lesbian, gay, and bisexual press. *J Health Commun*. 2006 Oct-Nov;11(7):635-49.
- 658: Stevens P, Carlson LM, Hinman JM. An analysis of tobacco industry marketing to lesbian, gay, bisexual, and transgender (LGBT) populations: strategies for mainstream tobacco control and prevention. *Health Promot Pract*. 2004 Jul;5(3 Suppl):129S-34S.
- 668: Tang H, Greenwood GL, Cowling DW, Lloyd JC, Roeseler AG, Bal DG. Cigarette smoking among lesbians, gays, and bisexuals: how serious a problem? (United States). *Cancer Causes Control*. 2004 Oct;15(8):797-803.
- 691: Valanis BG, Bowen DJ, Bassford T, Whitlock E, Charney P, Carter RA. Sexual orientation and health: comparisons in the women's health initiative sample. *Arch Fam Med*. 2000 Sep-Oct;9(9):843-53.
- 706: Washington HA. Burning Love: big tobacco takes aim at LGBT youths. *Am J Public Health*. 2002 Jul;92(7):1086-95. □