

Introduction

For the most part, transgender elders face the same types of health problems as cisgender (non-transgender) elders. “Heart disease is the leading cause of mortality for men and women in the U.S., accounting for nearly 40% of all annual deaths.”¹ “Cancer is the second leading cause of death in the U.S., [with] one-half of new cases of cancer occur[ring] in people aged 65 and older.”² Therefore, transgender elders should be encouraged to exercise, choose a healthy diet, and receive regular medical monitoring just like other elders.

There are some differences between the health risks faced by transgender elders and those faced by cisgendered elders. We will review three categories of risk:

- (1) Systemic barriers
- (2) Common health problems with which transgender people experience disparities
- (3) Health problems specific to transgender people.

Systemic barriers

- **Provider bias and denial of care**

Many transgender people have reported being denied medical services because of their gender identity: in two large cities, 26% of transgender respondents said that had happened to them³, and in June of 2003 the American Medical Association received written and oral testimony that “13-39% of transgender patients in San Francisco, Los Angeles, and the District of Columbia and 81% in Philadelphia report being denied healthcare or experienced hostility by a health care provider.”⁴ A Virginia study found

* Note: *Health disparities* are the areas in which a given population is at higher (or lower) risk of health problems, compared to similar peers. Articles on health disparities may include not just the places where a given population has *higher* risks, but also those in which it has *lower* risks. Very little research has been done on either the psychological or health strengths and resiliencies of transgender people (of any age). This article may therefore inadvertently give the impression that transgender people run much higher health risks than non-transgender people. This is probably not the case, given the many variables that go into good mental and physical health.

¹ **Boehmer, U, Bowen, DJ.** Health promotion and disease prevention. In: Makadon, HJ, Mayer, KH, Potter, J, Goldhammer, H, eds. *Fenway Guide to Lesbian, Gay, Bisexual and Transgender Health*. American College of Physicians; 2008:169.

² **Gay and Lesbian Medical Association.** *Healthy People 2010: Companion Document for Lesbian, Gay, Bisexual and Transgender (LGBT) Health*. Gay and Lesbian Medical Association; 2001. Available at: http://www.glma.org/_data/n_0001/resources/live/HealthyCompanionDoc3.pdf: 97.

³ **Kenagy, GP.** Transgender health: Findings from two needs assessment studies in Philadelphia. *Health & Social Work*. 2005:23.

⁴ **American Medical Student Association.** *AMSA Transgender Health Resources*. American Medical Student Association; no date. Available at: <http://www.amsa.org/lgbt/transgender.cfm>: n.p.

that 24.3% of transgender patients had experienced discrimination from a doctor or other health care provider.⁵

- **Lack of health care insurance**

Although 15% of the U.S. population lacked health insurance in 2003, the rate for transgender populations is much higher, in great measure due to high unemployment rates caused by discrimination (which is still legal in many states and localities, including most of the state of Wisconsin).⁶ A San Francisco study found that 52% of the MTFs and 41% of the FTMs were not insured.⁷ In the District of Columbia, 47% were uninsured, as was 21% of a New York City sample.⁸ In the Virginia survey, 27% of transgender respondents lacked insurance.⁹

- **Consumer hesitation and resistance**

In addition to fear of encountering more transphobia from health care providers and not having insurance or means of paying for health care, transgender people may also avoid seeing a health care provider because of body dysphoria. Dysphoria may be especially pronounced when a “gendered” part of the body needs care (such as a gynecological exam or prostate exam) and/or when a transgender elder has not had genital surgery. In these cases, health care that requires disrobing will automatically “out” the patient by revealing a “non-congruent” body (a body with a mix of typically “male” and “female” primary and secondary sexual characteristics).

Common health problems with which transgender people experience disparities

- **Violence**

The problem of violence and crime against the transgender community is so acute, a national collaboration of transgender health experts charged with setting the top **health** priorities for the transgender community decided that “Violence and murder

⁵ Xaviera, J. et. al. *The Health, Health-Related Needs, and Lifecourse Experiences of Transgender Virginians*. Virginia Department of Health, 2007: p. 17.

⁶ Zians, J. The San Diego County Transgender Assessment Report. Family Health Centers of San Diego’s Transgender Health Project: 2006:13

⁷ Clements-Nolle, K, Marx, R, Guzman, R, Katz, M. HIV prevalence, risk behaviors, health care use, and mental health status of transgender persons: Implications for public health interventions. *American Journal of Public Health*; 2001; 91(6).

⁸ **Gay and Lesbian Medical Association**. *Healthy People 2010: Companion Document for Lesbian, Gay, Bisexual and Transgender (LGBT) Health*. Gay and Lesbian Medical Association; 2001. Available at: http://www.glma.org/_data/n_0001/resources/live/HealthyCompanionDoc3.pdf: 50.

⁹ Xaviera, J. et. al. *The Health, Health-Related Needs, and Lifecourse Experiences of Transgender Virginians*. Virginia Department of Health, 2007: p. 16.

prevention” was the # 1 priority.¹⁰ Not even one federal study collects *any* kind of data on transgender people, and there has been only one statewide, state-funded survey (in Virginia). That survey asked only about crimes that had happened since the respondents were 13 (median age for entire survey was just 28 for FTMs and 40 for MTFs); 27% had been forced to engage in unwanted sexual activity, and 40% had been physically attacked.¹¹ Other studies have been privately-funded surveys with varying methodology and questions. One found that 47% of transgender individuals had been assaulted during their lifetime, with 16% being assaulted the year before the (1997) survey. In that year, the National Crime Victimization Study found 8.2% of Americans were assaulted, meaning transgender people were nearly twice as likely as their non-transgender peers to be attacked.¹² A Washington, D.C. survey found 43% of transgender people had been the victim of violence or crime,¹³ while one of the largest studies ever of transgender people - more than 1,000 answered FORGE’s survey - found that 49.6% had experienced sexual or interpersonal violence.¹⁴ The latter figure is very close to the rate found in other places on the percentage of transgender people who were forced to have sex: 68% and 55% in San Francisco and 53.8% in Philadelphia.¹⁵ Survey respondents saying they were physically abused or experienced violence in their home: 47% in Los Angeles, and 56.3% and 51.3% in Philadelphia.¹⁶ These figures are *many* times larger than those for the general public. For instance, lifetime sexual assault victimization rates for the general public are reported as 1 in 6 women and 1 in 33 men.¹⁷

- **HIV and risky sexual behavior**

With only one reported exception (a Philadelphia study), the risk of HIV among MTF transgender individuals is higher than it is among white gay men. One researcher pointed out that “higher seroprevalence rates were found among [MTF] transgendered people than among non-transgendered groups, including IV drug users..., female prostitutes..., and male sex workers...”¹⁸ Various studies have found HIV rates among MTFs ranging from 10% to 68%.¹⁹ Although some of these studies included large

¹⁰ Xavier, J. et. al. *An Overview of U.S. Trans Health Priorities: A Report by the Eliminating Disparities Working Group*. National Coalition for LGBT Health, 2004. This document was commissioned to complement the U.S. Department of Health and Human Services’ *2010 Healthy People* blueprint for improving the nation’s health.

¹¹ Xavier, J. et. al. *The Health, Health-Related Needs, and Lifecourse Experiences of Transgender Virginians*. Virginia Department of Health: 2007: p. 6

¹² Kenagy, GP. Transgender health: Findings from two needs assessment studies in Philadelphia. *Health & Social Work*. 2005: p. 20.

¹³ *Ibid.*

¹⁴ Munson, M., Cook-Daniels, L. *Results of a Large Transgender Sexuality Study*. Unpublished manuscript.

¹⁵ Kenagy, GP. Transgender health: Findings from two needs assessment studies in Philadelphia. *Health & Social Work*. 2005: pp. 20 and 23.

¹⁶ *Ibid.*

¹⁷ Rape, Abuse and Incest National Network statistics, accessed 5/27/2008 from <http://www.rain.org/statistics>. We were unable to locate lifetime physical assault rates for the general public.

¹⁸ Kenagy, GP. HIV among transgendered people. *AIDS Care*; 2002; 14(1): 127.

¹⁹ Xavier, J, et. al. *An Overview of U.S. Trans Health Priorities: A Report by the Eliminating Disparities Working Group*. National Coalition for LGBT Health; 2004. Available at <http://www.nctequality.org/healthpriorities.pdf>: 1; Kaufman, R.

numbers of sex workers, others did not. For instance, in a Virginia state government study of 229 MTFs, only 7% reported sex work as their current source of income, but 15.7% were HIV positive.²⁰ Of those who were sexually active, 50% *never* used condoms or other protective barriers.²¹ In FORGE's study of transgender sexuality, 48.5% of 103 MTF respondents engaged in anal penetration (possibly the highest-risk sexual activity), but only 36.9% used safer sex in all sexual interactions.²² At least one researcher suggests that the tissue of constructed vaginas is more fragile and vulnerable to HIV infection than non-surgically constructed vaginas.²³ Certainly, MTFs who transition later in life and re-enter the dating pool may be unaware of the risk of HIV and/or how to negotiate with sexual partners. Incredibly, there are *no* existing safer-sex educational materials aimed specifically at MTFs, except one written in comic-book style for MTF sex workers.

FTM HIV rates have not been well-studied, although the figures that do exist indicate a positive rate between 1 and 3%. It is important to note that many FTMs erroneously believe that if they do not have insertive sex with cisgender men, they are not at risk for HIV. Here, too, safer sex materials specific to FTM bodies and psychologies is very rare.

- **Substance use and abuse**

Surveys consistently show that transgender individuals use and abuse substances at much higher rates than the general public. A San Diego transgender survey found that 33.1% smoked, compared to the statewide average of 14% smokers.²⁴ A Minnesota sample found a similar much higher rate of transgender smokers: 37% of transgender clinic attendees smoked, compared to a statewide smoking rate of 20%.²⁵

Introduction to transgender identity and health. In: Makadon, HJ, Mayer, KH, Potter, J, Goldhammer, H, eds. Fenway Guide to Lesbian, Gay, Bisexual and Transgender Health. American College of Physicians; 2008:345; Dean, L, Meyer, IH, Robinson, K, et. al. Lesbian, gay, bisexual, and transgender health: Findings and concerns. Journal of the Gay and Lesbian Medical Association. 2000;4:130; Zians, J. The San Diego County Transgender Assessment Report. Family Health Centers of San Diego's Transgender Health Project: 2006: 40; Kenagy, GP. Transgender health: Findings from two needs assessment studies in Philadelphia. Health & Social Work. 2005:22; Xavier, J, Honnold, JA, Bradford, J The Health, Health-Related Needs, and Lifecourse Experiences of Transgender Virginians. Community Health Research Initiative, Center for Public Policy, Virginia Commonwealth University: 2007: 5.

²⁰ Xavier, J, Honnold, JA, Bradford, J The Health, Health-Related Needs, and Lifecourse Experiences of Transgender Virginians. Community Health Research Initiative, Center for Public Policy, Virginia Commonwealth University: 2007: pp. 14, 29.

²¹ *Ibid.*, p. 5

²² Munson, M., Cook-Daniels, L. Results of a Large Transgender Sexuality Study. Unpublished manuscript.

²³ Kenagy, GP, Hsieh, C-M. The risk less known: Female-to-male transgender persons' vulnerability to HIV infection. AIDS Care; 2005; 17(2): 205; Clements-Nolle, K, Marx, R, Guzman, R, Katz, M. HIV prevalence, risk behaviors, health care use, and mental health status of transgender persons: Implications for public health interventions. American Journal of Public Health; 2001; 91(6); n.p.

²⁴ Zians, J. The San Diego County Transgender Assessment Report. Family Health Centers of San Diego's Transgender Health Project: 2006: 36.

²⁵ Feldman, JL, Goldberg, J. Transgender Primary Medical Care: Suggested Guidelines for Clinicians in British Columbia. Vancouver Coastal Health, Transcend Transgender Support & Education Society, and the Canadian Rainbow Health Coalition; 2006. Available at www.vch.ca/transhealth/resources/library/tcpdocs/guidelines-primcare.pdf: 24.

- **Self-harm**

Transgender people have extremely high rates of suicidal ideation and attempts. Suicidal ideation has been reported at rates as high as 64%, according to one meta-analysis of studies from five urban centers.²⁶ Actual attempt rates seem to cluster in the 20-40% range across studies.²⁷ By comparison, 50% of lesbians have experienced thoughts of suicide at some time, and 18% had attempted it, compared to rates of 33% and 4%, respectively, for all U.S. women.²⁸

- **Depression**

Depression rates in transgender people are much higher than the rates for gay men, which are higher than the rates for heterosexual men. (Lesbians and heterosexual women have similar rates.) 62% of MTFs and 55% of FTMs in a San Francisco study reported depression.²⁹ A San Diego study of transgender people found that 60.3% had experienced feelings of depression in the past 12 months, and 22.1% were taking medications for depression.³⁰ A Minnesota study reported a 61% depression rate among transgender participants.³¹ For comparison purposes, the National Comorbidity Study put the lifetime prevalence of major depression at 16.9%.³²

²⁶ Xavier, J, et. al. An Overview of U.S. Trans Health Priorities: A Report by the Eliminating Disparities Working Group. National Coalition for LGBT Health; 2004. Available at <http://www.nctequality.org/healthpriorities.pdf>: 2.

²⁷ Munson, M, Cook-Daniels, L. Trans+/SOFFA and mental health survey results. *Connectivity*; 2003;7(2-3):3-6+. Available at: <http://www.forge-forward.org/newsletters/v07i02/connectivity-v7i2.pdf>: 50; Kenagy, GP. Transgender health: Findings from two needs assessment studies in Philadelphia. *Health & Social Work*. 2005;22; **Gay and Lesbian Medical Association**. Healthy People 2010: Companion Document for Lesbian, Gay, Bisexual and Transgender (LGBT) Health. *Gay and Lesbian Medical Association*; 2001. Available at: http://www.glma.org/_data/n_0001/resources/live/HealthyCompanionDoc3.pdf: 216; Xavier, J, et. al. An Overview of U.S. Trans Health Priorities: A Report by the Eliminating Disparities Working Group. National Coalition for LGBT Health; 2004. Available at <http://www.nctequality.org/healthpriorities.pdf>: 2; Clements-Nolle, K, Marx, R, Guzman, R, Katz, M. HIV prevalence, risk behaviors, health care use, and mental health status of transgender persons: Implications for public health interventions. *American Journal of Public Health*; 2001; 91(6): n.p.; Xavier, J, Honnold, JA, Bradford, J. The Health, Health-Related Needs, and Lifecourse Experiences of Transgender Virginians. *Community Health Research Initiative, Center for Public Policy, Virginia Commonwealth University*; 2007: 5.

²⁸ **Gay and Lesbian Medical Association**. Healthy People 2010: Companion Document for Lesbian, Gay, Bisexual and Transgender (LGBT) Health. *Gay and Lesbian Medical Association*; 2001. Available at: http://www.glma.org/_data/n_0001/resources/live/HealthyCompanionDoc3.pdf: 376.

²⁹ Clements-Nolle, K, Marx, R, Guzman, R, Katz, M. HIV prevalence, risk behaviors, health care use, and mental health status of transgender persons: Implications for public health interventions. *American Journal of Public Health*; 2001; 91(6): n.p.

³⁰ Zians, J. The San Diego County Transgender Assessment Report. *Family Health Centers of San Diego's Transgender Health Project*; 2006: 31.

³¹ Bockting, WO, Robinson, BE, Forberg, J, Scheltema, K. Evaluation of a sexual health approach to reducing HIV/STD risk in the transgender community. *AIDS Care*;2005; 17(3): 296.

³² Lifetime Prevalence of DSM-IV/WMH-CIDI disorders by sex and cohort, downloaded July 8, 2008 from http://www.hcp.med.harvard.edu/ncs/ftplib/table_ncsr_LTprevgenderxage.pdf.

- **Venous thromboembolism (blood clots)**

MTFs using estrogen have a 20-fold increase in venous thromboembolism compared to the general public.³³ The risk is *particularly* high if the MTF also smokes, to the point where some physicians will not prescribe estrogen if an MTF is a smoker. Risk goes up with age and sedentary lifestyles.

Risks may be reduced by using transdermal estrogen in lower doses or changing from conjugated equine estrogens to estradiol valerate.^{34, 35}

It is also strongly urged that MTFs discontinue hormones 2-4 weeks prior to surgery, to lower risk of blood clots during surgery.³⁶

- **Cerebrovascular accidents (stroke)**

Strokes are the third leading cause of death in Americans.³⁷ MTFs on hormones are also “anywhere from 35 to 45 times more at risk for cerebrovascular accidents than a postmenopausal female or senescent male.”³⁸ High blood pressure is the leading cause of stroke, although other risk factors include diabetes, being sedentary, smoking, and drinking excessively.³⁹

Polycythemia also raises the risk of stroke.

The National Stroke Association advises people to:

1. Know your blood pressure, have it checked at least once a year
2. Find out if you have atrial fibrillation, which encourages the formation of blood clots that could cause a stroke
3. If you smoke, stop
4. If you drink alcohol, do so in moderation
5. Find out if you have high cholesterol
6. If you have diabetes, take measures to control the condition

³³ Dean, L, Meyer, IH, Robinson, K, et. al. Lesbian, gay, bisexual, and transgender health: Findings and concerns. Journal of the Gay and Lesbian Medical Association. 2000;4:132.

³⁴ Eyler, AE. Primary medical care of the gender-variant patient. In: Ettner, R, Monstrey, S, Eyler, AE, eds. Principles of Transgender Medicine and Surgery. Haworth Press; 2007:28-29.

³⁵ Feldman, JL, Goldberg, J. Transgender Primary Medical Care: Suggested Guidelines for Clinicians in British Columbia. Vancouver Coastal Health, Transcend Transgender Support & Education Society, and the Canadian Rainbow Health Coalition; 2006. Available at www.vch.ca/transhealth/resources/library/tcpdocs/guidelines-primcare.pdf: 25.

³⁶ Feldman, JL, Goldberg, J. Transgender Primary Medical Care: Suggested Guidelines for Clinicians in British Columbia. Vancouver Coastal Health, Transcend Transgender Support & Education Society, and the Canadian Rainbow Health Coalition; 2006. Available at www.vch.ca/transhealth/resources/library/tcpdocs/guidelines-primcare.pdf: 27.

³⁷ Stroke Prevention. Downloaded July 7, 2008 from <http://www.healingdaily.com/conditions/stroke-prevention.htm>

³⁸ American Medical Student Association. AMSA Transgender Health Resources. American Medical Student Association; no date. Available at: <http://www.amsa.org/lgbt/transgender.cfm>: n.p.

³⁹ Stroke Prevention. Downloaded July 7, 2008 from <http://www.healingdaily.com/conditions/stroke-prevention.htm>

7. Include exercise in your daily routine
8. Eat a low-salt diet
9. Ask your physician if you have circulation problems that could increase the risk of stroke and
10. If you experience any stroke symptoms, including sudden weakness of the face or a limb, a blurring of vision, dizziness, or an intense headache, seek immediate medical attention.⁴⁰

- **Polycystic Ovarian Syndrome (PCOS)**

So far, only one medically-pertinent difference has been found between self-identified transgender people and cisgender (non-transgender) people *prior to the initiation of hormone therapy and/or gender-related surgery*: those who identify as female-to-male (FTM) have Polycystic Ovarian Syndrome (PCOS) at higher rates than do cisgender women. Lesbians also have a higher rate of PCOS than do cisgender women. Generally, 10% of women of childbearing age have PCOS. Some sources believe 25% of FTMs have PCOS; a Japanese study found a 58% PCOS rate in FTMs before they had hormone treatment.

PCOS consists of cysts (or fluid-filled sacs) on the ovaries. PCOS is associated with excess insulin, which increase production of androgen and can lead to Type 2 diabetes. (50% of people with PCOS have diabetes or pre-diabetes before the age of 40.) People with PCOS have a four to seven times higher risk of heart attack than people of the same age who do not have PCOS. High levels of androgen can also lead to acne, excessive hair growth, weight gain, and problems with ovulation. PCOS is also associated with high cholesterol, high blood pressure, and sleep apnea. Those with PCOS may also have a higher chance of getting endometrial cancer.

Since there is no cure for PCOS, the medical goal with PCOS is to either remove the ovaries or manage symptoms, paying particular attention to the killers of heart disease and diabetes.

- **Endometrial and ovarian cancer**

It's not clear yet whether FTMs are at higher risk of endometrial or ovarian cancer than are cisgender women, but they may be, particularly since having PCOS is associated with a higher risk of endometrial cancer. Certainly, FTMs may need encouragement and help to find a health care provider willing to do the regular screenings recommended for those who have a uterus and/or ovaries. (Providers may also need encouragement to give these screenings; there are anecdotal stories of physicians who regularly treat FTMs refusing to perform this examination.)

⁴⁰ *Ibid.*

- **Osteoporosis**

Hormones help make bones strong, which is why post-menopausal women are at higher risk of osteoporosis than younger women or than men, who still produce testosterone - albeit at a lower rate - into old age. If a transgender elder is *not* currently taking testosterone or estrogen, the next question to ask (sensitively, of course!) is whether he or she has had his or her reproductive organs removed (specifically, testicles or ovaries). Encourage an elder who doesn't have testicles or ovaries and who is *not* on hormones to see a sensitive endocrinologist, who can discuss options for lowering the risk of osteoporosis.

- **Cholesterol**

Masculinizing hormone regimes increase LDL cholesterol and decrease HDL cholesterol, raising FTMs' risk for atherosclerotic disease.⁴¹ Oral estrogen therapy increases HDL cholesterol and decreases LDL cholesterol, increasing MTFs' risks for increased triglycerides and pancreatitis.⁴² Cholesterol problems in transgender elders should be treated in the same way as in cisgender elders.

- **Liver disease**

Injected and oral forms of testosterone are processed through the liver. Therefore, routine blood tests should be run to make sure the liver isn't overtaxed. If the liver does begin showing problems, the FTM may want to switch his testosterone delivery method to the patch, a gel, compounded cream, or pellets. Milk Thistle supplements also seem to improve liver function for many FTMs.

- **Diabetes**

"Estrogen is known to impair glucose tolerance and there have been case reports of new onset type 2 diabetes among MTF transgender patients on estrogen."⁴³ The FDA-mandated insert for testosterone also warns that it can also increase diabetes.

⁴¹ *Ibid*, p. 17; **Feldman, J.** Preventive care of the transgendered patient: An evidence-based approach. In: Ettner, R, Monstrey, S, Eyler, AE, eds. *Principles of Transgender Medicine and Surgery*. Haworth Press; 2007:52.

⁴² **Feldman, J.** Medical and surgical management of the transgender patient: What the primary care clinician needs to know. In: Makadon, HJ, Mayer, KH, Potter, J, Goldhammer, H, eds. *Fenway Guide to Lesbian, Gay, Bisexual and Transgender Health*. American College of Physicians; 2008:376; **Feldman, JL, Goldberg, J.** Transgender Primary Medical Care: Suggested Guidelines for Clinicians in British Columbia. Vancouver Coastal Health, Transcend Transgender Support & Education Society, and the Canadian Rainbow Health Coalition; 2006. Available at www.vch.ca/transhealth/resources/library/tcpdocs/guidelines-primcare.pdf: 16-17.

⁴³ **Feldman, JL, Goldberg, J.** Transgender Primary Medical Care: Suggested Guidelines for Clinicians in British Columbia. Vancouver Coastal Health, Transcend Transgender Support & Education Society, and the Canadian Rainbow Health Coalition; 2006. Available at www.vch.ca/transhealth/resources/library/tcpdocs/guidelines-primcare.pdf: 18.

Prevention and treatment options are the same for transgender and cisgender diabetics.

Health problems specific to transgender people

In addition to facing the same health risks as other people (albeit it, in some cases as exemplified above, to a higher degree), transgender people face some unique or near-unique health issues.

- **Harry Benjamin Standards of Care**

It is critical to remember that according to the most-widely used “standards of care” for transgender people - the Harry Benjamin Standards of Care, now issued by the World Professional Association of Transgender Health (WPATH) - transgender people may need a letter from a mental health professional who has treated them for some period of time in order to obtain a doctor’s prescription for hormones. Surgeons often require letters from *two* mental health professionals before they will schedule gender-related surgery.⁴⁴ Although not all physicians, surgeons, and even mental health professionals follow these standards of care, many do. Seeing a mental health “gatekeeper” before one can access hormones and/or surgery is not only financially expensive, but also adds emotional costs to the process, particularly if the transgender person has one or more pre-existing conditions (including such common characteristics as a history of childhood sexual abuse) that they worry will slow down or even bar their progress toward obtaining “a letter.” It also lengthens the period of time before a transgender person can start transitioning.

Many activists believe that the Standards of Care may be part of the reason so many transgender people obtain their hormones from someone other than a doctor, and/or use injected silicone.

- **Non-monitored hormone use**

A significant number of transgender individuals obtain hormones without a doctor’s prescription, from friends, street sources, or internet sites. Procuring hormones this way sidesteps the Standards of Care’s recommendation that doctors not prescribe hormones to a transgender person until that person has had a course of mental health treatment. Four surveys of transgender individuals - from San Diego, San Francisco, and Chicago - found that between 53% and 73% of respondents had at least at some

⁴⁴ World Professional Association for Transgender Health. The standards of care for gender identity disorders, sixth version. In: Ettner, R, Monstrey, S, Eyler, AE, eds. Principles of Transgender Medicine and Surgery. Haworth Press; 2007:315-343.

point used hormones.⁴⁵ The number who obtained their hormones from non-physician sources was 29% of MTFs and 3% of FTMs in San Francisco, 29.2% of San Diego respondents, and 50% of the Virginians.⁴⁶ The Chicago sample, largely drawn from ethnic minority transfemale youth, found that only 29% of them got their hormones from a medical provider.⁴⁷ Twenty-nine percent of the transgender Virginians had had no blood tests done to monitor the effects of the hormones, which means potentially fatal problems would not be caught and treated in early stages.⁴⁸

- **Injection silicone**

One of the reasons male-to-female (MTF) transsexuals sometimes use injection silicone is because they cannot find, cannot afford, or do not want to use physicians who can help them shape their bodies more safely through hormones and surgery, and do not have access to a skilled therapist and/or support group that can help them accept their body as it is. Studies have found silicone use among MTFs to be 19% in Virginia, 25% in Washington, 30% in New York and Chicago, and 33% in Los Angeles.⁴⁹ Injected silicone is often industrial rather than medical grade, and it is peddled and injected by people who lack medical training. Of the transgender Virginians who used injection silicone, 21% shared needles.⁵⁰ “Despite its popularity, injection silicone...is often obtained under unsanitary conditions with risk of viral infections including HIV and hepatitis. It also leads to systemic illness and disfigurement, and sometimes results in death.”⁵¹ Another practitioner said the “effects of free silicone injection include severe disfigurement, neurological impairment, pulmonary disease (including embolism), and death.”⁵²

⁴⁵ Song, YS, Severlius, JM, Guzman, R, Colfax, G. Substance use and abuse. In: Makadon, HJ, Mayer, KH, Potter, J, Goldhammer, H, eds. Fenway Guide to Lesbian, Gay, Bisexual and Transgender Health. American College of Physicians; 2008:218-219; Zians, J. The San Diego County Transgender Assessment Report. Family Health Centers of San Diego’s Transgender Health Project: 2006: 127; Xaviera, J. et. al. *The Health, Health-Related Needs, and Lifecourse Experiences of Transgender Virginians*. Virginia Department of Health, 2007: p. 4.

⁴⁶ Zians, J. The San Diego County Transgender Assessment Report. Family Health Centers of San Diego’s Transgender Health Project: 2006: 127; Song, YS, Severlius, JM, Guzman, R, Colfax, G. Substance use and abuse. In: Makadon, HJ, Mayer, KH, Potter, J, Goldhammer, H, eds. Fenway Guide to Lesbian, Gay, Bisexual and Transgender Health. American College of Physicians; 2008:218-219; Xaviera, J. et. al. *The Health, Health-Related Needs, and Lifecourse Experiences of Transgender Virginians*. Virginia Department of Health, 2007: p. 4.

⁴⁷ Song, YS, Severlius, JM, Guzman, R, Colfax, G. Substance use and abuse. In: Makadon, HJ, Mayer, KH, Potter, J, Goldhammer, H, eds. Fenway Guide to Lesbian, Gay, Bisexual and Transgender Health. American College of Physicians; 2008:219.

⁴⁸ *Ibid.*

⁴⁹ *Ibid*; Xavier, J, et. al. An Overview of U.S. Trans Health Priorities: A Report by the Eliminating Disparities Working Group. National Coalition for LGBT Health; 2004. Available at <http://www.nctequality.org/healthpriorities.pdf>: 4.

⁵⁰ *Ibid.*

⁵¹ *Ibid.*

⁵² Feldman, J. Medical and surgical management of the transgender patient: What the primary care clinician needs to know. In: Makadon, HJ, Mayer, KH, Potter, J, Goldhammer, H, eds. Fenway Guide to Lesbian, Gay, Bisexual and Transgender Health. American College of Physicians; 2008:386.

- **Secondary polycythemia**

Polycythemia - an overabundance of red blood cells -- is a risk for FTMs on testosterone therapy, and tends to worsen with age.⁵³ Polycythemia can worsen preexisting vascular disease, and severe cases predispose patients to both venous and arterial thrombosis. Changing the form or dosage of testosterone may help. Low dose aspirin therapy may also decrease the risk, and therapeutic phlebotomy is often helpful.⁵⁴

- **Surgeries**

Broadly speaking, the older one gets, the more likely one is to have chronic conditions that may make surgery riskier. In addition, older bodies heal less quickly than younger bodies (in general), and older tissue is not as flexible as younger tissue. Aside from those considerations, there are no other barriers to gender-related surgery for older transgender people related to young transgender people. However, two aspects of gender-related surgery should be considered.

First, only a few surgeons specialize in doing transgender-related surgeries. This means that there is a very good chance that an elder is going to have to travel long distances for surgery, precluding return to the surgeon if there are complications after the patient returns home. That means a local doctor may be needed to address surgery-related complications such as strictures or infections. Since there have been reports of local physicians refusing to provide such care, ideally, an elder traveling for gender-related surgery should get a sensitive local doctor to agree ahead of time to see the patient should she or he develop any surgery-related complications at home.

Second, at least one physician believes later complications are more frequent for those who underwent surgery “many years ago when techniques were less sophisticated and follow-up care less consistent.”⁵⁵ Here, too, a local physician may need to help with surgical work done many miles (and years) away.

⁵³ Witten, TM, Eyler, AE. Transgender aging and the care of the elderly transgendered patient. In: Ettner, R, Monstrey, S, Eyler, AE, eds. *Principles of Transgender Medicine and Surgery*. Haworth Press; 2007:294-295; Gorton, RN, Buth, J, Spade, D. *Medical Therapy & Health Maintenance for Transgender Men: A Guide for Health Care Providers*. Lyon-Martin Women’s Health Services; 2005. Available at:

http://www.nickgorton.org/Medical%20Therapy%20and%20HM%20for%20Transgender%20Men_2005.pdf: 62.

⁵⁴ Gorton, RN, Buth, J, Spade, D. *Medical Therapy & Health Maintenance for Transgender Men: A Guide for Health Care Providers*. Lyon-Martin Women’s Health Services; 2005. Available at:

http://www.nickgorton.org/Medical%20Therapy%20and%20HM%20for%20Transgender%20Men_2005.pdf: 62.

⁵⁵ Feldman, J. Medical and surgical management of the transgender patient: What the primary care clinician needs to know. In: Makadon, HJ, Mayer, KH, Potter, J, Goldhammer, H, eds. *Fenway Guide to Lesbian, Gay, Bisexual and Transgender Health*. American College of Physicians; 2008: 368.

- **Routine screenings**

Most of the routine blood tests FTMs and MTFs should have are the same as for cisgender people. For FTMs using testosterone, these include:

- Complete blood count (hematocrit should be 40-54%; hemoglobin should be 12-15 gm/dL; and red blood cells should be 4.2 - 6.8 M/uL)
- Total testosterone (should be 300-1100 ng/dL)
- Lipid profile (should be <200 mg/dL)
- Liver function panel (should be ALT = 21-72 UL)
- Blood glucose (< 100 mg/dL)

For MTFs using estrogen, routine tests include:

- Complete blood count
- Hormone levels
- Lipid profile (should be <200 mg/dL)
- Liver function panel (should be ALT = 21-72 UL)
- Blood glucose (< 100 mg/dL)

Resources:

There are a growing number of guidelines for transgender health, several of them available free on the Web.

Alpert, LA, et. al. Tom Waddell Health Center Protocols for Hormonal Reassignment of Gender: Tom Waddell Clinic: 2006. Downloaded 5/15/2008 from: <http://www.sfdph.org/dph/comupg/oservices/medSvs/hlthCtrs/TransGendprotocols122006.pdf>

Ettner, R, Monstrey, S, Eyler, AE, eds. Principles of Transgender Medicine and Surgery. Haworth Press; 2007.

Feldman, JL, Goldberg, J. Transgender Primary Medical Care: Suggested Guidelines for Clinicians in British Columbia. Vancouver Coastal Health, Transcend Transgender Support & Education Society, and the Canadian Rainbow Health Coalition; 2006. Available at www.vch.ca/transhealth/resources/library/tcpdocs/guidelines-primcare.pdf

(Note that the above agency has a huge range of transgender health documents for both consumers and providers. Go to <http://www.vch.ca/transhealth/resources/library/> for a full list)

Gorton, RN, Buth, J, Spade, D. Medical Therapy & Health Maintenance for Transgender Men: A Guide for Health Care Providers. Lyon-Martin Women's Health Services: 2005.

Available at:

http://www.nickgorton.org/Medical%20Therapy%20and%20HM%20for%20Transgender%20Men_2005.pdf

Two-page, colorful health tip sheets are available for free download from FORGE:

FTMs: http://www.forge-forward.org/docs/FTM_health.pdf

MTFs: http://www.forge-forward.org/docs/MTF_health.pdf

Transgender: http://www.forge-forward.org/docs/general_trans_health.pdf

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