

**STATE OF CALIFORNIA
DEPARTMENT OF INSURANCE
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ECONOMIC IMPACT ASSESSMENT

GENDER NONDISCRIMINATION IN HEALTH INSURANCE

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Description of Proposal

The proposed regulation clarifies the prohibition against discrimination on the basis of gender or sex. AB 1586 (2005) prohibits plans and insurers from denying an individual a plan contract or policy, or coverage for a benefit included in the contract or policy, based on the person's sex, defined as "includ[ing] a person's gender identity and gender related appearance and behavior whether or not stereotypically associated with a person's assigned sex at birth."

The proposed regulation specifies forms of gender discrimination that are a violation of the discrimination prohibition in California Insurance Code (Ins. Code) section 10140 including:

- Denying or cancelling an insurance policy on the basis of gender identity;
- Using gender identity as a basis for determining premium;
- Considering gender identity as a pre-existing condition; or
- Denying coverage or claims for health care services to transgender people when coverage is provided to non-transgender people for the same services.

The California Department of Insurance (the "Department") has determined that denying claims as listed in the bullet points above is a violation of the discrimination prohibition in Ins. Code section 10140. The proposed regulation clarifies the obligation of insurers to refrain from discriminatory practices and results in a prohibition on the denial of claims solely due to an individual's transgender status. Furthermore, the proposed is consistent with recently enacted legislation, AB 887 (Atkins, 2011), which specifically prohibited discrimination based on gender identity and gender expression. This document constitutes the Department's Economic Impact Assessment (EIA), which considers the economic impact of this prohibition and assesses whether and to what extent the proposed regulation affects the criteria set forth in Government Code Section 11346.3(b)(1).

Economic Impact Findings

The Department has determined that the adoption of the proposed regulation would have an insignificant and immaterial economic impact on the creation or elimination of jobs, the creation or elimination of new businesses, and the expansion of businesses in the State of California.

Prohibiting the four types of discrimination listed in the bullets above will be of significant benefit for transgender people and should thereby potentially improve their health and welfare since they have been targets of discrimination and violence.¹ The regulation may also have a positive impact on transgender worker safety. Since these workers will have improved access to health care coverage, under the proposed regulation, they should be in better health and more productive at work. However, while the proposed regulation may have a positive impact on the health, welfare and worker safety of the transgender population, which is a very small subset of California residents, the aggregate cost to the state population as a whole will be very insignificant (see “Prevalence of the Transgender Population” section).

The Department finds that nothing in the proposed regulation prohibits an insurer from using objective, valid, and up-to-date statistical and actuarial data or sound underwriting practices. While insurers may use someone’s health status to determine their premium, analysis of the potential increase in claim costs from the proposed regulation shows that any such costs are immaterial and insignificant.

To arrive at these conclusions, Department staff conducted a thorough literature review, analyzed existing data, and obtained cost and premium data from employers. Department staff used a variety of data sources to reach these conclusions, including actuarial and utilization data related to potential increased claim costs resulting from the prohibition of the four types of discrimination listed in the bullets, above.

Impact on Employment and Business

Based on the very small size of the population that may be impacted by the proposed regulation, the Department has concluded that the proposed regulation will have an insignificant and immaterial impact on the creation or elimination of jobs, the creation of new business or the elimination of existing business, and the expansion of business currently doing business in California (see “Prevalence of the Transgender Population” section below).

Department staff have determined that the adoption of the proposed regulation will have an immaterial impact on extra demands for treatments, because of the low prevalence of the impacted population. Consequently, there will be immaterial changes in the labor force.

In addition, the proposed regulation requires equality of treatment. If a medically necessary treatment is not available to any insured, the insurer is not obligated to provide that treatment to transgender individuals. Because no new treatments are required, there is no impact on the creation or elimination of existing businesses, nor the expansion of established businesses in California.

Prevalence of the Transgender Population

Because the proposed regulation will give transgender Californians access to the same treatments offered to non-transgender Californians, the Department’s analysis included a review of the number of the individuals in the California population that could contribute to increased claim

¹ See the “Impact on Health and Welfare” section.

costs. The transgender population is much smaller than the overall lesbian, gay, and bisexual population and is more difficult to track and follow due to the significant disenfranchisement and discrimination that transgender individuals face.² The Department has published a range of estimates (see table below).

The classic estimate for prevalence of transgender individuals (using gender identity disorder as a measurement) comes from the 1994 Diagnostic and Statistical Manual, Fourth Edition (DSM-IV), which reported 1:30,000 natal males and 1:100,000 natal females.³ More recently, a 2009 review by Zucker and Lawrence concluded that the prevalence may be 3 to 8 times the numbers reported in the DSM-IV, based mostly on reports from Western European clinics.^{4, 5}

In 2007, De Cuypere, et al., reviewed ten studies from eight countries; plus, they conducted their own study. “The prevalence figures reported in these ten studies range from 1:11,900 to 1:45,000 for male-to-female individuals and from 1:30,400 to 1:200,000 for female-to-male individuals. Some scholars have suggested that the prevalence is much higher, depending on the methodology used.”⁶

Department staff utilized data from these studies, and estimates of the uninsured population, to arrive at a range of estimates for the insured transgender population in California based upon 2010 Census figures.⁷

Out of the 37.3 million California residents, transgender people make up between 0.0065 and 0.0173 percent of the total population in California, using the two highest estimates in order to be conservative (see the last two columns of the table below). When the rate of uninsured Californians (19 percent) is factored in, only 0.0052 to 0.0140 percent of the state population would be impacted by the proposed regulation — or between 1,955 and 5,214 people.⁸

Total California Population	Source	Estimated Number of Transgender Individuals				
		DSM-IV	De Cuypere - Low End	De Cuypere - High End	Zucker and Lawrence - 3 times DSM-IV	Zucker and Lawrence - 8 times DSM-IV
18,517,830	Male	617	412	1,556	1,852	4,938
18,736,126	Female	187	94	616	562	1,499
37,253,956	Total	805	505	2,172	2,414	6,437
100%	Percentage of Total California Population	0.0022%	0.0014%	0.0058%	0.0065%	0.0173%
	Total Insured* (Total X .81)	652	409	1,760	1,955	5,214
	Percentage of Total California Population	0.0017%	0.0011%	0.0047%	0.0052%	0.0140%

² (Baker, Kesteren, Gooren, & Bezemer, 1993)

³ (American Psychiatric Association, 1994)

⁴ (Zucker & Lawrence, 2009)

⁵ (Olson, Forbes, & Belzer, 2001)

⁶ (The World Professional Association for Transgender Health, 2011)

⁷ (U.S. Census Bureau, 2010)

⁸ (The Kaiser Family Foundation, 2009)

Since the number of transgender people in the general population is so small, the subpopulation of insured individuals is even less significant. The following estimates by the Department of costs and utilization are conservative, considering that the transgender population has higher than average rates of poverty and unemployment and lower rates of insurance coverage. A 2008 survey conducted by the Transgender Law Center indicates that transgender people are twice as likely to live below the poverty line.⁹ Because transgender people have less access to insurance coverage than average Californians, they are more likely to be covered by a public program and would not contribute to increased claims against private insurers.

Utilization and Impact on Claim Costs and Premiums

While there is limited actuarial data publically available on the impact that the Department's proposed regulation would have on claim costs and premiums, the Department has identified enough existing data to make conclusions about the economic impact of the regulation.

Department staff reviewed data from five employers that have internal policies prohibiting discrimination in health care coverage and reviewed their related cost studies. For reasons discussed in the following section, the Department has concluded the impact on costs, due to the adoption of the proposed regulation, would be immaterial.

Utilization

Utilization data is important because it is used by insurers to calculate expected claim costs and then premiums. As utilization increases, the expected claim costs increase and in general the increase will be reflected in setting premiums. In this section, the Department presents data that indicates extremely low utilization resulting from elimination of gender discrimination, as would be expected with such a small population.

Once again, the proposed regulation requires that treatments available to non-transgender insureds not be denied based on an insureds actual or perceived gender identity or transgender status, as defined. If a medically necessary treatment is not available to any insured, the insurer is not obligated to provide that treatment to transgender individuals. Department staff used utilization data from employers that offer transgender employees equal health care benefits as a proxy for increased utilization that we may expect to see as a result of implementing the proposed regulations. Department staff determined that this data most closely represents the kind of increased utilization that we can expect based on prohibition of the four types of discrimination listed in the first section of this assessment.

While the move to eliminate this type of gender discrimination in health policies was rare among employers ten years ago, many more employers are adopting internal policies offering equal access to health care services for their transgender employees. The number of Fortune 500 companies that have eliminated discrimination in health care benefits offered to their transgender employees has increased from 49 in 2009 to 207 in 2012.¹⁰ Presenters at the Out & Equal Workplace Summit 2011 indicated that the utilization, and thus costs, for prohibiting discrimination are very low. "[M]any employers around the country have eliminated the

⁹ (Transgender Law Center, 2008)

¹⁰ (Human Rights Campaign, 2012)

exclusions in their health plans...Utilization is very low and there has been little or no impact to premiums.”¹¹

Existing utilization data is limited due to extremely low utilization coupled with the concern that releasing this data could be traced back to individuals and violate health privacy laws. However, Department staff obtained and reviewed three sources of utilization data: (1) The City and County of San Francisco; (2) The University of California; and (3) Jamison Green and Associates report on utilization and costs to private companies with voluntary internal nondiscrimination policies similar to the proposed regulation.

The City and County of San Francisco (San Francisco) prohibited gender-based discrimination in 2001 for all City and County employees and their dependents. In the following five years, there were only 37 claims. A report by Jamison Green and Associates estimated that utilization rates (claimants per employee) ranged from 0.0325 to 0.104 claimants per thousand employees per year.¹²

In March 2012, the University of California (UC) released utilization and cost data from one of its health plan insurers, for the 6.5 years since UC first prohibited discrimination against transgender employees in its health care plans.¹³ The utilization rates, as summarized in the table below, ranged from 0.011 to 0.093 claimants per thousand covered lives per year.¹⁴ In order to make comparisons with other utilization data, the Department converted the UC data to utilization rates per 1,000 covered employees. Using a member-to-employee ratio of 2:1, Department staff arrived at utilization rates per 1,000 employees, from a minimum of 0.022 in CY 2006 to a maximum of 0.187 in CY 2009 (see far right column in table below).

Coverage Period	Number of Claimants	Average Covered Lives	Est. Average Number of Employees*	Utilization Rates per 1,000 covered lives	Utilization Rates per 1,000 employees*
Jul - Dec 2005	-	92,470	46,235	-	-
CY 2006	1	91,705	45,853	0.011	0.022
CY 2007	3	86,868	43,434	0.035	0.069
CY 2008	9	120,905	60,453	0.074	0.149
CY 2009	11	117,945	58,973	0.093	0.187
CY 2010	10	115,087	57,544	0.087	0.174
CY 2011	8	111,571	55,785	0.072	0.143
Total	42				
		Average utilization rates (excl. 2005 data)		0.062	0.124
		Min utilization rates (excl. 2005 data)		0.011	0.022
		Max utilization rates (excl. 2005 data)		0.093	0.187
*Estimated number of employees based on a member-to-employee ratio of 2:1					

¹¹ (Green, Wilson, & Fidas, 2011). Slide #5.

¹² (Wilson, 2012); Slide # 11

¹³ (Manning, 2012)

¹⁴ *ibid.*

Further underscoring evidence of extremely low utilization, the insurer reported that only 27 individuals sought treatments, some with multiple claims, over the period of 6.5 years.¹⁵ Using the number of (distinct) members, rather than the number of distinct claims, Department staff obtained an average utilization rate of 0.039 per thousand covered lives per year. Department staff made the conversion because utilization data relying on covered lives is a more accurate representation of actual utilization. As expected, the average utilization rate per thousand covered lives (0.062 per thousand) is significantly lower than the utilization per thousand employees (0.124) because the rate per covered lives represents utilization spread across all insureds.

In addition, a report issued by Jamison Green and Associates estimated utilization rates in the range of 0.0015 to 0.325 per thousand employees per year, based on interviews with fifteen Fortune 500 companies who have eliminated the discriminatory policies.¹⁶ Their broader estimates discussed below included the experience of San Francisco.

The table below summarizes the utilization rates from all three sources mentioned above.

	Utilization Rates per 1,000 employees per year		
Case	City and County of San Francisco	University of California	Sample of Private Employers
Minimum	0.0325	0.022	0.0015
Maximum	0.104	0.187	0.325

The utilization rates for San Francisco and UC fall within the range of utilization estimates of Jamison Green and Associates discussed above.

Claim Costs and Premium History

The Department augmented the limited claim cost and utilization data available by reviewing premium data from several employers to determine the additional amount their insurers have been charging to extend equal coverage to transgender employees and dependents.

For San Francisco, the initial cost per employee was \$1.70 per member per month (PMPM) in 2001. Due to low utilization, San Francisco reduced the PMPM to \$1.16 in 2004-2005 and the city's self-insured plan reduced its charge to \$0.50 PMPM. As of July 1, 2006, the cost data demonstrated that no separate rate was required, so the charge was removed entirely. Initial claims were first subject to a lifetime maximum of \$50,000 then increased to \$75,000 in 2004.¹⁷

¹⁵ There were 27 unduplicated individuals who received treatment during this time period. There were 42 claimants because some procedures for the same individual occurred over more than one year.

¹⁶ (Wilson, 2012) Slide #13

¹⁷ (The City and County of San Francisco Human Rights Commission, 2007)

The University of California eliminated transgender discrimination in 2005 without being charged an additional premium.¹⁸ Claim cost data from the UC health plan with the largest enrollment shows that the claim costs PMPM attributed to the elimination were very low. The maximum of claim costs during the 6.5 years was \$0.20 PMPM, or 0.05 percent of the total premium.

As of January 1, 2012, the City of Berkeley removed discriminatory provisions within its health plans. Berkeley's insurers charged a premium of 0.2 percent of the total annual budget for healthcare benefits. The total projected monthly increase was 0.25 percent (223 covered lives in one plan) and 0.19 percent (938 covered lives in another plan) as of March 2012.¹⁹

Two other cities have had experiences similar to Berkeley's. The City of Portland removed discriminatory policies beginning July 1, 2011. The cost projection for Portland was \$32,302 out of a total \$41,615,000 health care budget – a 0.08 percent increase.²⁰ The City of Seattle absorbed a premium increase of \$200,000 per year of a total \$105 million health care budget – just 0.19 percent of total health costs based on insurer estimates of increased utilization.²¹

It is a standard practice for insurers to charge a premium to cover expected claim costs of the proposed regulation, administrative expenses, taxes, profit and any provisions for adverse deviation. When credible cost and utilization data is absent or limited for new benefits, insurers tend to be conservative by including a larger provision for adverse deviation. This is evidenced by San Francisco's experience, where "[f]rom July 2001 through July 2006, the grand total of reported monies collected (for this purpose) is \$5.6 million. The grand total of reported monies expended is \$386,417."²² Since cost assumptions were nearly 15 times higher than actual claims, the city eventually eliminated the additional premium.

Using the impact on premiums as a proxy for anticipated increased claim costs, the range of the impact on costs for the proposed regulation would be a minimum of no increase (the case of San Francisco and the University of California), to a maximum increase of 0.2 percent in expected claim costs (the cases of Berkeley and Seattle). However, changes to policies in Berkeley and Seattle were recent, limiting data availability. As stated before, the 0.2 percent estimate may very likely include a large provision for adverse deviation. The Department's conclusion is supported by the actual claims data collected for the UC system, which shows the claims costs accounted for only 0.05 percent of premiums.

In addition to the employer information, Department staff also reviewed the Sylvia Rivera Law Project white paper discussing the impact of a similar prohibition for Medicaid in the State of New York. "A preliminary estimate by the New York State Department of Health in 2010 approximated that it would cost about \$1.7 million to cover gender-confirming care through

¹⁸ (Manning, 2012)

¹⁹ (Hodgkins, 2012)

²⁰ (The City of Portland, Oregon, 2011)

²¹ (Freiboth, 2012)

²² (The City and County of San Francisco Human Rights Commission, 2007)

Medicaid. As the state Medicaid budget totals \$52 billion, this represents only 0.003 percent of the total budget.”²³

Based on evidence of low utilization and prevalence rates shown above, the Department has determined that the impact on costs or increases in premiums due to the adoption of the proposed regulation would be immaterial.

Utilization Assumptions

There are a number of assumptions that contribute to lower-than-expected utilization seen in San Francisco. Like any other condition, treatment options for GID vary greatly and not all transgender people with the diagnosis will undergo surgical intervention. It appears that utilization projections are made with:

...the belief that all transgender people undergo genital surgery as the primary medical treatment for changing gender. In fact, gender-confirming healthcare is an individualized treatment that differs according to the needs and pre-existing conditions of individual transgender people. Some transgender people undergo no medical care related to their expression of a gender identity that differs from their birth-assigned sex. Others undergo only hormone therapy treatment or any number of surgical procedures.²⁴

The assumption that treatment utilization and costs are the same for each transgender person is reflected in the significant difference between premium charges by insurers and actual utilization costs and evidenced in the wide range of claims costs reported by the University of California. The claims varied from \$67 to \$86,800 with an average cost of \$29,929 per transgender person requiring treatment.

Additional factors that impact utilization and cost include, but are not limited to:

- Transgender insureds may have already undergone treatment;
- Surgical treatment for gender identity disorder (GID) is usually a once-in-a-lifetime event, and many costs are spread over a lifetime, and do not occur in just a single year;
- Transgender people do not always have a diagnosis of GID and thus have no medically necessary indication for treatment;
- Almost all surgical treatments for treatment of GID are treatments that are provided to non-transgender insureds for other indications; and
- Other health factors can contraindicate treatment.

²³ (The Sylvia Rivera Law Project, 2011)

²⁴ (Spade, 2010)

A detailed analysis of the impact of each of these assumptions on utilization is beyond the scope of this assessment, but is illustrative of what may be the reasons for the apparent gap between premiums charged to employers for prohibiting health care discrimination against transgender insureds and the actual reported utilization and cost.

In addition, the Department believes that there may be a possible spike in demand for such services in the first few years after the adoption of the proposed regulation due to the possible existence of some current unmet demand. This may lead to higher costs, in the near-term, following the adoption of the proposed regulation. While this is possible, this was not the experience of the University of California or San Francisco. In any case, the small size of the impacted population will likely make the magnitude of such an increase insignificant and immaterial.

Impact on Health and Welfare

As discussed in the *Prevalence* and the *Utilization and Claims* sections, prohibiting the four types of discrimination listed in the bullets on page one will be of significant benefit for a very small class of California residents who are directly impacted. The proposed regulation should thereby potentially improve their health and welfare since transgender people have been targets of discrimination and violence.²⁵ The proposed regulation may also improve worker safety, as explained above. However, while the Department found that the proposed regulation may have a significant beneficial impact on the health, welfare and safety of the transgender population, the aggregate costs will be very insignificant. The Department has determined that the benefits of eliminating discrimination far exceed the insignificant costs associated with implementation of the proposed regulation. Based on this assessment, the Department has determined that there are no significant adverse impacts of the regulation to the health and welfare of California residents, nor will it impact overall worker safety, and the state's environment.

Further, the Department's evidence suggests that benefits will accrue to insurance carriers and employers as costs decline for the treatment of complications arising from denial of coverage for treatments. The evidence suggests that there may be potential cost savings resulting from the adoption of the proposed regulation in the medium to long term, such as lower costs associated with the high cost of suicide and attempts at suicide, overall improvements in mental health and lower rates of substance abuse, as discussed in the following section.

The Benefit and Cost Savings of Suicide Reduction²⁶

One of the most severe results of denying coverage of treatments to transgender insureds that are available to non-transgender insureds is suicidal ideation and attempts. The Centers for Disease Control and Prevention estimate the average acute medical costs of a single suicide completion or attempt in the United States is \$2,596 and \$7,234 respectively.²⁷ This only includes acute care and hospitalization costs. While there are studies that provide higher estimated costs per suicide attempt and completion, we choose to conservatively use the lower bound cost to keep estimates

²⁵ (Tannis, Grant, & Mottat, 2010)

²⁶ (Gorton, 2011)

²⁷ (The Centers for Disease Control, 2010)

as relevant to health insurers as possible.^{28,29} A more in-depth analysis might include the costs of mental health treatment or other medical costs following a suicide attempt.

A meta-analysis published in 2010 by Murad, et al., of patients who received currently excluded treatments demonstrated that there was a significant decrease in suicidality post-treatment. The average reduction was from 30 percent pretreatment to 8 percent post treatment.³⁰

De Cuyper, et al., reported that the rate of suicide attempts dropped dramatically from 29.3 percent to 5.1 percent after receiving medical and surgical treatment among Dutch patients treated from 1986-2001.³¹

According to Dr. Ryan Gorton, “In a cross-sectional study of 141 transgender patients, Kuiper and Cohen-Kittens found that after medical intervention and treatments, suicide fell from 19 percent to zero percent in transgender men and from 24 percent to 6 percent in transgender women.”^{32,33}

Clements-Nolle, et al., studied the predictors of suicide among over 500 transgender men and women in a sample from San Francisco and found a prevalence of suicide attempts of 32 percent.³⁴ In this study, the strongest predictor associated with the risk of suicide was gender based discrimination which included “problems getting health or medical services due to their gender identity or presentation.”³⁵ According to Gorton, “Notably, this gender-based discrimination was a more reliable predictor of suicide than depression, history of alcohol/drug abuse treatment, physical victimization, or sexual assault.”³⁶

A recent systematic review of largely American samples gives a suicide attempt rate of approximately one in every three individuals with higher rates found among adolescents and young adults.³⁷ According to Dr. R. Nicholas Gorton, MD, who treats transgender people at a San Francisco Health Clinic, “The same review also noted that while mental health problems predispose to suicidality, a significant proportion of the drivers of suicide in the LGBT population as a whole is minority stress.” He continues to conclude that, “[f]or transgender people such stress is tremendous especially if they are unable to 'pass' in society. Surgical and hormonal treatments — that are [also] covered for non-transgender insureds — are specifically aimed at correcting the body so that it more closely resembles that of the target gender, so providing care significantly improves patients' ability to pass and thus lessens minority stress.”³⁸

These studies provide overwhelming evidence that removing discriminatory barriers to treatment results in significantly lower suicide rates. These lower rates, taken together with the estimated

²⁸ (Yang & D.Lester, 2007)

²⁹ (Corso P, 2007)

³⁰ (Murad M, 2010)

³¹ (DeCuyper, 2006)

³² (Kuiper M, 1988)

³³ (Gorton, 2011)

³⁴ (Clements-Nolle K, 2006)

³⁵ (Clements-Nolle, Marx, & and Katz, 2006)

³⁶ (Gorton, 2011)

³⁷ (Haas, 2011)

³⁸ (Gorton, 2011)

costs of a suicide attempt and completion, demonstrate that the proposed regulation will not only save insurers from the costs associated with suicide, but prevent significant numbers of transgender insureds from losing their lives.

Additional Benefits

Overall improvements in mental health. Transgender insureds who have access to treatment see rates of depression drop and anxiety decrease. Evidence supporting this conclusion comes from a meta-analysis of 28 studies showing that 78 percent of transgender people had improved psychological functioning after treatment.³⁹ In another recent study, transgender women who had had any relevant surgeries had mental health scores comparable to women in general, while those who were not able to access care scored much lower on mental health measures.⁴⁰ In another study, participants improved on 13 out of 14 mental health measures after receiving treatments.⁴¹ This overall improvement in mental health and reduction in utilization of mental health services could be a source of cost savings for employers, insurers, and insureds.

Substance abuse rates decline. There are numerous studies that provide evidence that substance abuse rates decline including one where participants, “describe how substance use was a coping mechanism for their gender dysphoria before they had access to treatment.”^{42, 43} Another study found an overall reduction in substance use after receiving treatment.⁴⁴

Further, the Sylvia Rivera Law Project suggests that treatment for GID could combat other types of substance abuse since it is well known that “[i]ncreased smoking and drug and alcohol use correlates with increased rates of lung cancer, heart disease, stroke, and liver disease.”⁴⁵

HIV Rates and Care. Transgender people have significantly higher rates of HIV than the general population (28 percent in a meta-analysis⁴⁶ as compared to a general population rate of 0.6 percent).⁴⁷ It is also significant that studies show “high rates of adherence to HIV care for trans people when combined with hormonal treatment.”^{48, 49} This is particularly relevant to insurers because it provides evidence that offering treatment may reduce the long-term costs of treatment for HIV/AIDS. It is particularly relevant for the welfare of all Californians because, “[w]hen compliant with care, HIV-positive people stay healthier longer and are far less likely to transmit the virus to others.”⁵⁰

Other Benefits. Transgender people who are denied access to treatment and suffer from dysphoria associated with gender identity disorder sometimes turn to self-medication for relief.

³⁹ (Murad M, 2010)

⁴⁰ (Ainsworth & Spiegel, 2010).

⁴¹ (Smith Y, 2005)

⁴² (The Sylvia Rivera Law Project, 2011)

⁴³ (Cole, 1997)

⁴⁴ (Rehman, 1999)

⁴⁵ (The Sylvia Rivera Law Project, 2011)

⁴⁶ (Operario D., 2010)

⁴⁷ (United Nations Programme on HIV/AIDS (UNAIDS) and World Health Organization (WHO), 2007)

⁴⁸ (The Sylvia Rivera Law Project, 2011)

⁴⁹ Grimaldi J; Jacobs J. (1998.) “The HIV/Hormone Bridge, *Int Conf AIDS*; 12: 981, abstract no. 571/44225.

⁵⁰ (The Sylvia Rivera Law Project, 2011)

Silicone injections, for example, are sometimes used in lieu of medically available treatments. Prevalence of this has been documented in needs assessments in Washington D.C., Chicago, and Los Angeles, where respondents reported having injected silicone into their bodies at a rate of 25, 30, and 33 percent of the time, respectively.^{51, 52, 53} Construction-grade silicone is used to alter body shape sometimes resulting in deadly consequences.⁵⁴ Several researchers suggest that lack of early access to GID treatments and care costs more.

Increased socioeconomic status for transgender insureds. Lack of access to treatment due to coverage denials also results in a greater likelihood of adverse socioeconomic consequences for the insured. A single group pre- and post-study demonstrated improvements in socioeconomic status or employment status in transgender patients after hormonal and surgical treatment.⁵⁵ Additional studies conclude that transgender persons have higher employment rates after they have access to treatments.⁵⁶

For the reasons cited above, Department staff concluded that ending these four types of discrimination will cost little or nothing in the short run and may produce longer-term cost savings and improved health benefits for transgender people.

⁵¹ (Xavier, 2000)

⁵² (Bostwick, 2001)

⁵³ (Reback, Simon, Bemis, & Gatson, 2001)

⁵⁴ (Komenaka, 2004); (Fox, 2004); (Hage, 2001).

⁵⁵ (Bodlund O, 1996)

⁵⁶ (Grant, 2010); (Murad M, 2010); (Rakic, 1996).

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