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# Gender Reassignment Surgery: Medical, Policy, and Cost Considerations

A Report to the Pension Boards—United Church of Christ

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## Executive Summary

Transgender people in the United States face barriers to accessing transgender-specific health care services. Many health insurance plans exclude or tightly restrict coverage of procedures and services related to gender reassignment. Such exclusions are increasingly being challenged. A consensus of professional opinion has emerged that medical interventions including hormonal treatments and gender reassignment surgery (GRS), when properly indicated for the treatment of gender dysphoria, are medically necessary and should be covered by health insurance. There are well-established clinical guidelines and criteria for these treatments. Although the process of gender transition for transgender individuals does not always require surgery, GRS tends to be the focus of attention with regard to insurance coverage of transgender-specific health care.

The American Medical Association, the American Psychiatric Association, the American Psychological Association, and the American Congress of Obstetricians and Gynecologists issued unequivocal policy statements affirming the medical necessity of GRS between 2008-2012. Until very recently, however, a national policy on Medicare coverage of GRS was notably at odds with the current medical consensus. A National Coverage Determination (NCD) implemented in 1989 denied Medicare coverage of GRS on the basis that the procedures were “controversial,” and “experimental” due to a lack of evidence demonstrating their safety and effectiveness. On May 30, 2014, a U.S. Department of Health and Human Services administrative board ruled the NCD invalid, concluding that the concerns expressed by the NCD are outdated and no longer reasonable.

When health insurance plans include GRS benefits, covered procedures typically include breast/chest surgery and genital surgery. A number of other surgical procedures that are usually considered cosmetic, and not covered, can be considered medically necessary in the treatment of gender dysphoria. Also, many health plans’ medical policies on GRS do not address hormonal treatment to suppress puberty in transgender adolescents. Puberty-suppressing hormone therapy delays the development of physical sex characteristics that are difficult or impossible to change surgically.

The legal grounds for exclusion of GRS coverage are also being challenged through implementation of the Patient Protection and Affordable Care Act of 2010 (ACA), which prohibits discrimination based on gender identity. The law bans preexisting condition exclusions, and issuers may not deny health insurance to transgender individuals on the basis that their gender identity is a preexisting condition. ACA sets additional nondiscrimination standards for Qualified Health Plans (QHPs) that could potentially prohibit GRS exclusions, but these standards do not apply to self-insured health plans. CMS and state regulators will enforce ACA standards prohibiting discriminatory benefit designs when reviewing QHPs for 2015 certification. It remains to be seen whether CMS will find any GRS exclusions in QHPs to be discriminatory. Insurance regulators in California, Vermont, and the District of Columbia

expressly prohibit blanket GRS exclusions. Colorado and Oregon have issued rules that mandate coverage of treatments for gender reassignment if they are covered for other indications. State nondiscrimination provisions would apply to QHPs sold in those states and to issuers governed by those states' insurance regulations.

Although nondiscrimination provisions under ACA do not compel self-insured health plans to include GRS coverage, many are opting to do so voluntarily. Experience over the past decade has shown that inclusion of GRS coverage does not expose employers to a high degree of financial risk. Reported utilization of transgender-specific benefits and costs attributable to claims have been very low. Recent analyses based on actual utilization and cost data reported by employers suggest a maximum utilization rate of approximately 0.2 claimants per 1,000 covered lives per year. Costs attributable to gender reassignment claims typically represent less than 1 percent of total claims paid in a given year.

# I. Background

## Context of Transgender Health

Transgender people in the United States commonly experience stigma, discrimination, and violence. A report on findings of the National Transgender Discrimination Survey, a 2011 survey of 6,450 transgender Americans, concluded that, “It is part of social and legal convention in the United States to discriminate against, ridicule, and abuse transgender and gender non-conforming people within foundational institutions such as the family, schools, the workplace and health care settings, every day.”<sup>1</sup>

There is increasing recognition that structural inequality is a major cause of health disparities among transgender people. A landmark Institute of Medicine (IOM) report, in 2011, found that U.S. sexual- and gender-minority people “face barriers to equitable health care that profoundly affect their overall well-being,”<sup>2</sup>

For transgender people, lack of health insurance and exclusion of coverage for transgender-specific services pose serious barriers to accessing care.

## Transgender Terminology

The language used in discussing transgender health is constantly evolving and highly variable. This report attempts to use terms consistent with current preferred terminology. The definitions given here are adapted from glossaries published by the World Professional Association for Transgender Health<sup>3</sup> and the Fenway Institute.<sup>4</sup>

**Gender expression**—the external manifestation of a person’s gender identity, which may or may not conform to socially defined behaviors and external characteristics commonly viewed as either masculine or feminine.

**Gender identity**—a person’s innate, deeply-felt psychological identification as a man, woman, or something else, which may or may not correspond to the person’s external body or assigned sex at birth.

**Gender nonconforming**—describes individuals whose gender identity, role, or expression differs from what is normative. A gender nonconforming person is one whose gender expression is neither masculine nor feminine, or different from traditional or stereotypic expectations of how a man or woman should appear or behave.

**Gender reassignment surgery (GRS)**—surgery to change primary and/or secondary sex characteristics to affirm a person’s gender identity. People with gender dysphoria may or may not have surgery and, if they have surgery, they may have one or more types of surgery, depending upon their circumstances. Other terms include *gender affirmation*

*surgery, genital reassignment surgery, genital reconstruction surgery, genital surgery, sex reassignment surgery, and transsexual surgery.* Infrequently, “realignment” is used instead of “reassignment” or “reconstruction.” *Sex reassignment surgery* is increasingly falling into disuse as many people find the term offensive. *Sex change* and *sex change operation* are considered offensive.

**Gender role**—refers to traditional or stereotypical behavioral differences between men and women, as defined by the culture in which they live (e.g. in terms of gender expressions, careers they pursue, and their duties within a family).

**Sex**—in a dichotomous scheme, the designation of a person at birth as either “male” or “female” based on anatomy (genitalia and/or reproductive organs) and/or biology (chromosomes and/or hormones). Sometimes “sex” and “gender” are used interchangeably. For clarity, it is better to distinguish between sex, gender identity, and gender expression.

**Sexual orientation**—a person’s enduring physical, romantic, emotional, and/or spiritual attraction to another person. May be lesbian, gay, heterosexual, bisexual, pansexual, polysexual, or asexual. Sexual orientation is distinct from sex, gender identity, and gender expression.

**Transgender**—an umbrella term for people whose gender identity and/or gender expression differs from their assigned sex at birth.

**Transman, transwoman**—generally refers to someone who was identified male or female at birth but who identifies and portrays his or her gender as the opposite gender. People often use this term after taking steps to express their gender as male or female, or after medically transitioning. Related terms: *male-to-female (MtF)* for transwomen, and *female-to-male (FtM)* for transmen.

**Transition**—the process people go through as they change their gender expression and/or physical appearance (e.g., through hormones and/or surgery) to align with their gender identity. A transition may occur over a period of time, and may involve coming out to family, friends, co-workers, and others; changing one’s name and/or sex designation on legal documents (e.g., drivers’ licenses, birth certificates); and/or medical intervention. Some prefer terms such as *gender affirmation* or *gender confirmation*.

**Transsexual**—a person whose gender identity differs from their assigned sex at birth. Also, a person who, often on a full-time basis, lives as a member of the sex opposite their birth-designated sex. A transsexual person may or may not experience gender dysphoria, and may or may not take hormones or have surgery. Use of the term “transsexual” remains strong in the medical community due to use of “transsexualism” for diagnostic purposes. The term is controversial, and some consider it pejorative or a misnomer.

## Clinical Definitions

Being transgender or gender nonconforming is not inherently an illness or disorder. Contemporary clinical opinion holds that a medical disorder exists only when a person experiences significant distress due to the discrepancy between their gender identity and assigned sex.

The clinical features and diagnostic criteria of this disorder are defined according to two standard systems: The American Psychiatric Association *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (DSM-V, 2013),<sup>5</sup> and the World Health Organization *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision* (ICD-10, 1992).<sup>6</sup>

DSM-V replaces the diagnostic term “gender identity disorder” (GID), used in the Fourth Edition (DSM-IV, 1994) with “gender dysphoria.” The American Psychiatric Association intended to reduce stigma associated with the condition by removing “the connotation that the patient is ‘disordered,’” and to align with “familiar clinical sexology terminology.”<sup>7</sup> Nevertheless, the change has been controversial among transgender people and health professionals.<sup>8</sup>

This report uses the term gender dysphoria, in accordance with DSM-V; however, many sources cited refer to GID. In quotations, GID should be considered synonymous with gender dysphoria unless otherwise indicated.

### DSM-V Criteria for Gender Dysphoria in Adolescents and Adults

- A. A marked incongruence between one’s experienced/expressed gender and assigned gender, of at least 6 months duration, as manifested by at least two of the following:
  - 1. A marked incongruence between one’s experienced/expressed gender and primary and/or secondary sex characteristics (or in young adolescents, the anticipated secondary sex characteristics)
  - 2. A strong desire to be rid of one’s primary and/or secondary sex characteristics because of a marked incongruence with one’s experienced/expressed gender (or in young adolescents, a desire to prevent the development of the anticipated secondary sex characteristics)
  - 3. A strong desire for the primary and/or secondary sex characteristics of the other gender
  - 4. A strong desire to be of the other gender (or some alternative gender different from one’s assigned gender)
  - 5. A strong desire to be treated as the other gender (or some alternative gender different from one’s assigned gender)
  - 6. A strong conviction that one has the typical feelings and reactions of the other gender (or some alternative gender different from one’s assigned gender).
- B. The condition is associated with clinically significant distress or impairment in social, occupational, or other important areas of functioning.

*The ICD-10 Classification of Mental and Behavioral Disorders: Clinical Descriptions and Diagnostic Guidelines* classifies “transsexualism” as a mental disorder within the category of “gender identity disorders.”

ICD-10 (F.64.0)

TRANSSEXUALISM

A desire to live and be accepted as a member of the opposite sex, usually accompanied by a sense of discomfort with, or inappropriateness of, one's anatomic sex and a wish to have hormonal treatment and surgery to make one's body as congruent as possible with the preferred sex.

DIAGNOSTIC GUIDELINES

For this diagnosis to be made, the transsexual identity should have been present persistently for at least 2 years, and must not be a symptom of another mental disorder, such as schizophrenia, or associated with any intersex, genetic, or sex chromosome abnormality.

## **Etiology and Epidemiology**

The spectrum of gender identity and expression is broad, and differences are defined in relation to social and cultural norms.<sup>3</sup> Therefore it is difficult to connect transsexualism or gender nonconformity with a particular psychological or biological cause.<sup>9</sup> What is well understood, however, is that transgender people are not inherently disordered or diseased, and that increased occurrence of certain coexisting health problems in transgender people is not symptomatic of their gender variance, but rather due to stigma, discrimination, and other adverse social factors.<sup>2</sup>

Estimates of the size and distribution of the transgender population in the United States are imprecise and based on limited population-based data.<sup>2</sup> A 2011 research brief by Gary J. Gates of the Williams Institute on Sexual Orientation and Gender Identity Law and Public Policy at the UCLA School of Law reviews data from all available surveys, conducted in the U.S. and internationally, that included questions on gender identity, as well as studies that have constructed estimates of the proportion of adults who are transgender.<sup>10</sup>

Based on this review, Gates estimates that approximately 0.3 percent of adults in the U.S. are transgender—which would put the size of the adult transgender population at about 700,000 individuals.

Little is known about the distribution of transgender people in the U.S. The only evidence cited by the IOM in 2011 was a 2007 study that compared an online convenience sample with U.S. Census data. This study showed that the number of people who identified as transgender in the 15 most populous U.S. states was generally proportionate to state population size; however, the proportions of transgender people in Colorado, Minnesota, Missouri, and Oregon were overrepresented relative to state population size.<sup>2</sup>

Based on the IOM's recommendations, the U.S. Department of Health and Human Services (HHS) has prioritized the inclusion of core questions related to gender identity within existing national population-based data systems, in order to identify transgender populations.<sup>11,12</sup>

## II. Standards of Care and Clinical Guidelines

The most widely recognized standards of medical care for transgender people are those established by the World Professional Association for Transgender Health (WPATH)—formerly known as the Harry Benjamin International Gender Dysphoria Association (HBIGDA)—an international, multidisciplinary professional association “whose mission is to promote evidence-based care, education, research, advocacy, public policy, and respect in transsexual and transgender health.”

The WPATH Standards of Care (SOC) “articulate a professional consensus about the psychiatric, psychological, medical, and surgical management of gender identity disorders, and help professionals understand the parameters within which they may offer assistance to those with these conditions.” The current version is the *Standards of Care for the Health of Transsexual, Transgender, and Gender Nonconforming People, Seventh Version (SOC-7)*, published in 2011. Numerous sources refer to the previous *HBIGDA Standards of Care for Gender Identity Disorders, Sixth Version*, published in 2001. Earlier versions of the SOC were published in 1998, 1990, 1981, 1980, and 1979.<sup>3</sup>

The Endocrine Society, an international professional association concerned with endocrinological research and clinical practice, has developed a widely cited evidence-based clinical guideline on hormone therapy and gender reassignment surgery. *The Endocrine Treatment of Transsexual Persons: An Endocrine Society Clinical Practice Guideline*, published in 2009, is the latest edition. The Endocrine Society guideline makes recommendations on hormone therapy and gender reassignment surgery which were formulated according to the Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) system.<sup>9</sup>

WPATH SOC-7 advances a concept of individualized treatment for gender dysphoria:

“What helps one person alleviate gender dysphoria might be very different from what helps another person. This process may or may not involve a change in gender expression or body modifications. Medical treatment options include, for example, feminization or masculinization of the body through hormone therapy and/or surgery, which are effective in alleviating gender dysphoria and are medically necessary for many people ...”

“Often with the help of psychotherapy, some individuals integrate their trans- or cross-gender feelings into the gender role they were assigned at birth and do not feel the need to feminize or masculinize their body. For others, changes in gender role and expression are sufficient to alleviate gender dysphoria. Some patients may need hormones, a possible change in gender role, but not surgery; others may need a change in gender role along with surgery, but not hormones.”



The SOC defines four general categories of medical and psychological interventions for the treatment of gender dysphoria:

- Changes in gender expression and role
- Hormone therapy to feminize or masculinize the body
- Surgery to change primary and/or secondary sex characteristics
- Psychotherapy.

In adolescents, suppression of puberty to delay the development of masculine or feminine physical characteristics is another form of hormonal treatment that may be considered.

The number, type, and order of medical and psychological treatments necessary to alleviate gender dysphoria varies among individuals.

### ***Changes in gender expression and role***

A person with gender dysphoria may achieve some degree of relief by making gender expression consistent with gender identity. WPATH SOC-7 classifies this approach as a medical treatment. It may involve changes in characteristics and behaviors such as, “carriage (movement), dress, grooming, hairstyles, jewelry, mannerisms, physical characteristics, social interactions, and speech patterns (voice).” Attaining a comfortable gender role is an important component of the treatment of gender dysphoria. This often involves living part-time or full-time in a different gender role, and doing so is a prerequisite for some surgical interventions. “While most individuals present socially in clearly masculine or feminine gender roles, some people present in an alternative gender role such as genderqueer or specifically transgender.” The process of exploring and implementing changes in gender expression and role should be facilitated by a qualified health professional.

### ***Psychotherapy***

The SOC distinguishes between psychotherapy and mental health screening and assessment. Psychotherapy is “highly recommended” in the treatment of gender dysphoria, however the SOC does not consider psychotherapy a requirement for hormone therapy or surgery. The goal of psychotherapy is, “to help transsexual, transgender, and gender-nonconforming individuals achieve long-term comfort in their gender identity expression, with realistic chances for success in their relationships, education, and work.”

### ***Puberty suppression***

Puberty-suppressing hormones, namely gonadotropin-releasing hormone (GnRH) analogues, may be used to treat adolescents with gender dysphoria at the onset of puberty. GnRH analogues suppress the production testosterone and estrogen and delay the physical changes that occur during puberty.

“Two goals justify intervention with puberty suppressing hormones: (i) their use gives adolescents more time to explore their gender nonconformity and other developmental issues;

and (ii) their use may facilitate transition by preventing the development of sex characteristics that are difficult or impossible to reverse if adolescents continue on to pursue sex reassignment.”

For example, characteristically male facial features, such as the bone structure of the brow, develop under the influence of testosterone during puberty. Preventing the development of such features in a male-to-female transsexual during adolescence would obviate any need for facial feminizing surgery when she reaches adulthood. Likewise, characteristically female bone structure, such as wider hips, is also influenced by the production of estrogen in puberty.

### ***Non-medical options***

Other approaches can be beneficial in alleviating gender dysphoria as adjuncts or alternatives to medical and psychological treatment. These include:

- Social support resources for patients and their families and friends (e.g., online and in-person groups and community organizations)
- Voice and communication therapy
- Hair removal (e.g., electrolysis, laser hair removal, or waxing)
- Nonsurgical alteration of primary and/or secondary sex characteristics (e.g., breast binding or padding, penile tucking or prostheses, padding hips and buttocks)
- Change of name and gender marker on official identity documents.

## **Clinical Recommendations and Criteria for Hormone Therapy and Surgery**

WPATH and the Endocrine Society set forth recommendations and criteria for hormonal and surgical treatment of gender dysphoria in adolescents and adults. The guidelines and criteria for feminizing/masculinizing hormone therapy and puberty suppression are detailed here because hormone therapy is typically a prerequisite for surgery. Puberty suppression in adolescents is relevant to GRS because GRS is typically not performed in individuals younger than 18 years of age, and adolescents who receive this treatment may have different needs for GRS in adulthood.

### ***Hormone therapy criteria—adults***

WPATH SOC-7 establishes the following criteria for initiation of hormone therapy in adults:

1. Persistent, well-documented gender dysphoria
2. Capacity to make a fully informed decision and to consent for treatment
3. Age of majority (18 years)
4. If significant medical or mental health concerns are present, they must be reasonably well-controlled.

The SOC states that the presence of a coexisting mental disorder should not exclude a patient from receiving hormone therapy, provided that the condition is “managed prior to, or

concurrent with, treatment for gender dysphoria.” WPATH does not endorse any specific regimen of hormone therapy, and instead refers clinicians to clinical guidelines developed by the Endocrine Society.

The Endocrine Society recommends that “treating endocrinologists confirm the diagnostic criteria of GID or transsexualism and the eligibility and readiness criteria for the endocrine phase of gender transition.” This recommendation refers to ICD-10 and DSM-IV diagnostic criteria, because the guideline predates the publication of DSM-V. The recommendation also predates WPATH SOC-7, and refers to “eligibility and readiness” criteria detailed in WPATH SOC-6 (2001). Although the recommended criteria no longer reflect the current version of the WPATH SOC, they are nevertheless current insofar as this guideline is concerned. The Endocrine Society criteria are as follows:

Adults are eligible for hormone therapy if they:

1. Fulfill DSM IV-TR or ICD-10 criteria for GID or transsexualism
2. Do not suffer from psychiatric comorbidity that interferes with the diagnostic work-up or treatment
3. Demonstrate knowledge and understanding of the expected outcomes of hormone treatment, as well as the medical and social risks and benefits
4. Have experienced a documented [real-life experience] of at least three months duration OR had a period of psychotherapy (duration specified by the [mental health professional] after the initial evaluation, usually a minimum of three months).

An adult patient should fulfill the following readiness criteria before beginning hormone therapy:

1. Has had further consolidation of gender identity during a [real-life experience] or psychotherapy;
2. Has made some progress in mastering other identified problems leading to improvement or continuing stable mental health
3. Is likely to take hormones in a responsible manner.

The Endocrine Society recommends that “medical conditions that can be exacerbated by hormone depletion and cross-sex hormone treatment be evaluated and addressed prior to initiation of treatment.”

Estrogen therapy is associated with adverse outcomes in male-to-female patients with thromboembolic disease (very high risk), macroprolactinoma, severe liver dysfunction, breast cancer, coronary artery disease, cerebrovascular disease, and severe migraine headaches (moderate to high risk).

Testosterone therapy carries a very high risk of adverse outcomes in female-to-male patients with breast or uterine cancer and erythrocytosis, and a moderate to high risk in patients with severe liver dysfunction.

### ***Hormone therapy criteria—adolescents***

WPATH SOC-7 considers the following to be minimum criteria for administering puberty-suppressing hormones in adolescents:

1. The adolescent has demonstrated a long-lasting and intense pattern of gender nonconformity or gender dysphoria (whether suppressed or expressed).
2. Gender dysphoria emerged or worsened with the onset of puberty.
3. Any coexisting psychological, medical, or social problems that could interfere with treatment (e.g., that may compromise treatment adherence) have been addressed, such that the adolescent's situation and functioning are stable enough to start treatment.
4. The adolescent has given informed consent and, particularly when the adolescent has not reached the age of medical consent, the parents or other caretakers or guardians have consented to the treatment and are involved in supporting the adolescent throughout the treatment process.

The Endocrine Society makes the following recommendations:

- ▶ That adolescents who fulfill eligibility and readiness criteria for gender reassignment initially undergo treatment to suppress pubertal development.
- ▶ That suppression of pubertal hormones start when girls and boys first exhibit physical changes of puberty ...
- ▶ That GnRH analogues be used to achieve suppression of pubertal hormones.

The Endocrine Society considers adolescents to be eligible and ready for GnRH treatment if they:

1. Fulfill DSM IV-TR or ICD-10 criteria for GID or transsexualism
2. Have experienced puberty to at least Tanner stage 2\*
3. Have experienced increased gender dysphoria as a result of early pubertal changes
4. Do not suffer from psychiatric comorbidity that interferes with the diagnostic work-up or treatment
5. Have adequate psychological and social support during treatment
6. Demonstrate knowledge and understanding of the expected outcomes of GnRH analogue treatment, cross-sex hormone treatment, and sex reassignment surgery, as well as the medical and the social risks and benefits of sex reassignment.

Adolescents are eligible for masculinizing or feminizing hormone therapy if they:

1. Fulfill the criteria for GnRH treatment
2. Are 16 years or older.

Readiness criteria for feminizing/masculinizing hormone therapy in adolescents are the same as those for adults.

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\* *Tanner staging is a scale used to measure development of physical primary and secondary sex characteristics.*

### ***Gender reassignment surgery criteria***

WPATH SOC-7 establishes specific criteria for several GRS procedures in male-to-female (MtF) and female-to-male (FtM) patients.

#### **Breast/chest surgeries**

One referral from a qualified mental health provider is required for breast/chest surgeries for gender reassignment.

#### **Mastectomy and creation of a male chest in FtM patients:**

1. Persistent, well-documented gender dysphoria
2. Capacity to make a fully informed decision and to consent for treatment
3. Age of majority
4. If significant medical or mental health concerns are present, they must be reasonably well controlled.
5. Hormone therapy is not a prerequisite.

#### **Breast augmentation (implants/lipofilling) in MtF patients:**

1. Persistent, well-documented gender dysphoria
2. Capacity to make a fully informed decision and to consent for treatment
3. Age of majority
4. If significant medical or mental health concerns are present, they must be reasonably well controlled.
  - ▶ Although not an explicit criterion, it is recommended that MtF patients undergo feminizing hormone therapy (minimum 12 months) prior to breast augmentation surgery.

#### **Genital surgery**

Two referrals from qualified mental health professionals who have independently evaluated the patient are required. If one referral is from the patient's psychotherapist, the second referral should be an evaluation by another mental health professional who has not had an ongoing clinical relationship with the patient.

#### **Hysterectomy and salpingo-oophorectomy in FtM patients and orchiectomy in MtF patients:**

1. Persistent, well-documented gender dysphoria
2. Capacity to make a fully informed decision and to consent for treatment
3. Age of majority
4. Any significant coexisting medical or mental health conditions must be well controlled.
5. 12 continuous months of hormone therapy as appropriate to the patient's gender goals (unless hormones are not clinically indicated for the individual).

**Metoidioplasty or phalloplasty in FtM patients and for vaginoplasty in MtF patients:**

1. Persistent, well-documented gender dysphoria
2. Capacity to make a fully informed decision and to consent for treatment
3. Age of majority
4. Any significant coexisting medical or mental health conditions must be well controlled.
5. 12 continuous months of hormone therapy as appropriate to the patient's gender goals (unless hormones are not clinically indicated for the individual).
6. 12 continuous months of living in a gender role that is congruent with their gender identity
  - ▶ Although not an explicit criterion, it is recommended that these patients also have regular visits with a mental health or other medical professional.

**The Endocrine Society makes the following recommendations:**

- ▶ That transsexual persons consider genital sex reassignment surgery only after both the physician responsible for endocrine transition therapy and the [mental health professional] find surgery advisable.
- ▶ That genital sex reassignment surgery be recommended only after completion of at least one year of consistent and compliant hormone treatment.
- ▶ That the physician responsible for endocrine treatment medically clear transsexual individuals for sex reassignment surgery and collaborate with the surgeon regarding hormone use during and after surgery.

**Individuals treated with feminizing/masculinizing hormones are considered eligible for GRS if they:**

1. Are of the legal age of majority
2. Have used [hormone therapy] continuously and responsibly during 12 months (if they have no medical contraindication).
3. Had a successful continuous full-time RLE [real-life experience in their desired gender identity] during 12 months.
4. Have (if required by the [mental health professional]) regularly participated in psychotherapy throughout the RLE at a frequency determined jointly by the patient and the [mental health professional].
5. Have shown demonstrable knowledge of all practical aspects of surgery (e.g., cost, required lengths of hospitalizations, likely complications, post-surgical rehabilitation, etc.).

**Individuals treated with feminizing/masculinizing hormones should fulfill the following readiness criteria prior to GRS:**

1. Demonstrable progress in consolidating one's gender identity
2. Demonstrable progress in dealing with work, family, and interpersonal issues resulting in a significantly better state of mental health.

### III. Medical Necessity

The concept of medical necessity has been central to the treatment of gender dysphoria in the United States, where public and private health insurance providers act as gatekeepers to medical care.

Liza Khan writes in a 2011 review in the *Yale Journal of Health Policy, Law, and Ethics*:

“Both public and private insurers attempt to control healthcare costs by refusing coverage for procedures they believe are not ‘medically necessary.’ Medically unnecessary interventions include, but are not limited to, procedures insurers conclude are cosmetic or experimental. The medical-necessity requirement is at once the broadest and least defined exclusion clause in most insurance plans ...”

“Insurers and courts alike usually deem a medical intervention to be ‘necessary’ when an attending physician finds it to be medically appropriate and the physician's judgment is in line with the medical community's recommended treatments for the condition.”<sup>13</sup>

Determination of the medical necessity of treatments for gender dysphoria remains controversial, due in part to a lack of knowledge and understanding on the part of most medical professionals regarding the diversity of transgender people's medical needs.<sup>2,14</sup> What's more, medical treatment of gender dysphoria does not always aim to achieve or comport with a binary social construct of gender identity and expression, and doesn't necessarily involve genital surgery. Genital surgery is commonly viewed as a definitive procedure, whereas non-genital surgical procedures involved in treating gender dysphoria are typically considered cosmetic. GRS is also generally perceived to be extremely expensive, which prompts concerns that covering treatment for transgender people would increase health care costs for everyone.<sup>13</sup> Pervasive bias against transgender people may also make GRS coverage harder to justify as medically necessary.

In 2008, WPATH issued a statement on the medical necessity of GRS with respect to insurance coverage in the United States.<sup>15</sup> This statement asserts that GRS is medically necessary for the treatment of individuals with gender dysphoria according to the definition of medical necessity commonly used by insurers: “... [GRS], properly indicated and performed as provided by the Standards of Care, has proven to be beneficial and effective.”

The statement also stresses that, “medical procedures attendant to sex reassignment are not ‘cosmetic’ or ‘elective’ or for the mere convenience of the patient,” and that GRS procedures and treatment protocols “are not experimental,” but rather, “essential to achieving well-being for the transsexual patient.”

The statement makes the critical distinction that, “not every patient will have a medical need for identical procedures; clinically appropriate treatments must be determined on an individualized basis.”

WPATH SOC-7 contains numerous comments on the medical necessity of GRS. The SOC deems surgery to be “essential and medically necessary” to alleviate gender dysphoria in individuals for whom “relief from gender dysphoria cannot be achieved without modification of their primary and/or secondary sex characteristics to establish greater congruence with their gender identity.” According to the SOC, treatment of gender dysphoria may include the following surgical procedures:

For Male-to-Female (MtF) patients

- Breast/chest surgery
  - augmentation mammoplasty (implants/lipofilling)
- Genital surgery
  - penectomy, orchiectomy
  - vaginoplasty
  - clitoroplasty
  - vulvoplasty
- Non-genital, non-breast surgical interventions
  - facial feminization surgery
  - liposuction
  - lipofilling
  - voice surgery
  - thyroid cartilage reduction
  - gluteal augmentation (implants/lipofilling)
  - hair reconstruction
  - various aesthetic procedures.

For Female-to-Male (FtM) patients

- Breast/chest surgery
  - subcutaneous mastectomy and creation of a male chest
- Genital surgery
  - hysterectomy/salpingo-oophorectomy
  - reconstruction of the fixed part of the urethra, which can be combined with a metoidioplasty or with a phalloplasty (employing a pedicled or free vascularized flap)
  - vaginectomy
  - scrotoplasty
  - implantation of erection and/or testicular prostheses
- Non-genital, non-breast surgical interventions
  - voice surgery (rare)
  - liposuction
  - lipofilling
  - pectoral implants
  - various aesthetic procedures.



Although most non-genital, non-breast surgical procedures are generally considered to be purely aesthetic or cosmetic in patients without gender dysphoria, WPATH states that, “these same operations in an individual with severe gender dysphoria can be considered medically necessary, depending on the unique clinical situation of a given patient’s condition and life situation. This ambiguity reflects reality in clinical situations, and allows for individual decisions as to the need and desirability of these procedures.”

Khan (2011) asserts that, “interventions that are regarded as cosmetic in certain contexts should not necessarily be considered cosmetic in all contexts. Transgender patients do not pursue treatments that alter their physical features to simply improve their looks,” but as interventions to end suffering caused by gender dysphoria.<sup>13</sup>

WPATH SOC-7 notes that non-genital, non-breast/chest procedures, such as facial feminizing surgery and hair removal by electrolysis, can have a greater impact than genital surgery on quality of life for many individuals. The ability to credibly “pass,” or be recognized and accepted as a man or woman, in public is important treatment goal for many transgender people. Genitals are hidden in most social settings, so the appearance or function of one’s genitals is usually of little importance to being accepted as a male or female. For a transwoman, exhibiting strongly masculine facial features might “out” her, or signal her transgender status, much more readily than having a penis would. For some transgender individuals, “passing” can be a serious matter of personal safety, as failing to pass in certain situations could expose them to harassment and violence.<sup>2</sup>

## **Medical Consensus**

Numerous U.S. medical professional associations have issued formal policy statements regarding medical necessity and insurance coverage of medical treatment for gender dysphoria.

### **American Medical Association (AMA)**

In June 2008, the AMA House of Delegates adopted the following resolution:<sup>16</sup>

#### *Removing Financial Barriers to Care for Transgender Patients*

Our AMA supports public and private health insurance coverage for treatment of gender identity disorder as recommended by the patient’s physician. (Res. 122; A-08)

### **American Psychiatric Association**

In July 2012, the American Psychiatric Association Board of Trustees adopted the following position statement:<sup>17</sup>

#### *Position Statement on Access to Care for Transgender and Gender Variant Individuals*

“Significant and long-standing medical and psychiatric literature exists that demonstrates clear benefits of medical and surgical interventions to assist gender variant individuals

seeking transition. However, private and public insurers often do not offer, or may specifically exclude, coverage for medically necessary treatments for gender transition. Access to medical care (both medical and surgical) positively impacts the mental health of transgender and gender variant individuals ...”

“Transgender and gender variant individuals currently lack access to the best standards of clinical practice, frequently do not have the opportunity to pursue patient-focused treatment decisions, do not receive scientifically established treatment and could benefit significantly from APA’s advocacy ...”

“Therefore, the American Psychiatric Association:

Recognizes that appropriately evaluated transgender and gender variant individuals can benefit greatly from medical and surgical gender transition treatments.

Advocates for removal of barriers to care and supports both public and private health insurance coverage for gender transition treatment [and] opposes categorical exclusions of coverage for such medically necessary treatment when prescribed by a physician.”

### **American Psychological Association**

In August 2008, the American Psychological Association Council of Representatives adopted the following policy statement:<sup>18</sup>

#### *Resolution on Transgender, Gender Identity, and Gender Expression Non-Discrimination*

“[The American Psychological Association] supports the provision of adequate and necessary mental and medical health care treatment for transgender and gender variant individuals ... [and] recognizes the efficacy, benefit and medical necessity of gender transition treatments for appropriately evaluated individuals and calls upon public and private insurers to cover these medically necessary treatments[.]”

### **American Congress of Obstetricians and Gynecologists (ACOG)**

In December 2011, the ACOG Committee on Health Care for Underserved Women published the following statement:<sup>19</sup>

#### *Health Care for Transgender Individuals*

“Transgender individuals face harassment, discrimination, and rejection within our society. Lack of awareness, knowledge, and sensitivity in health care communities eventually leads to inadequate access to, underutilization of, and disparities within the health care system for this population. Although the care for these patients is often managed by a specialty team, obstetrician–gynecologists should be prepared to assist or refer transgender individuals with routine treatment and screening as well as hormonal and surgical therapies.

The American College of Obstetricians and Gynecologists opposes discrimination on the basis of gender identity and urges public and private health insurance plans to cover the treatment of gender identity disorder.”

## Medicare National Coverage Determination

On May 30, 2014, the HHS Departmental Appeals Board ruled to invalidate the Center for Medicare and Medicaid Services' (CMS) longstanding National Coverage Determination (NCD) on the medical necessity of GRS.<sup>20</sup> NCDs are binding decisions on whether or not Medicare will cover an item or service. The NCD in question, titled "140.3 Transsexual Surgery" states:

### ITEM/SERVICE DESCRIPTION

Transsexual surgery, also known as sex reassignment surgery or intersex surgery, is the culmination of a series of procedures designed to change the anatomy of transsexuals to conform to their gender identity. Transsexuals are persons with an overwhelming desire to change anatomic sex because of their fixed conviction that they are members of the opposite sex. For the male-to-female, transsexual surgery entails castration, penectomy and vulva-vaginal construction. Surgery for the female-to-male transsexual consists of bilateral mastectomy, hysterectomy and salpingo-oophorectomy, which may be followed by phalloplasty and the insertion of testicular prostheses.

### INDICATIONS AND LIMITATIONS OF COVERAGE

Transsexual surgery for sex reassignment of transsexuals is controversial. Because of the lack of well controlled, long term studies of the safety and effectiveness of the surgical procedures and attendant therapies for transsexualism, the treatment is considered experimental. Moreover, there is a high rate of serious complications for these surgical procedures. For these reasons, transsexual surgery is not covered.

In 2013, a group of advocacy organizations filed an administrative challenge to the NCD on behalf of a transgender Medicare beneficiary.<sup>21</sup> The challenge was based on the premise that the NCD was outdated with regard to today's medical knowledge and practices, and in many ways inaccurate. The NCD was published in the Federal Register in August 1989, but it was based on an earlier report which relied on medical evidence prior to 1981.

CMS declined to defend the NCD or rebut any of the new evidence or testimony put forth in these proceedings.

In its ruling, the Board states, "We have no difficulty concluding that the new evidence, which includes medical studies published in the more than 32 years since issuance of the 1981 report underlying the NCD, outweighs the NCD record and demonstrates that transsexual surgery is safe and effective and not experimental."

The Board notes that the NCD describes this surgery as "controversial" as well as "experimental." The 1981 report states that, "over and above the medical and scientific issues, it would also appear that transsexual surgery is controversial in our society."

The Board asserts that, "considerations of social acceptability (or non-acceptability) of medical procedures appear on their face to be antithetical to Medicare's 'medical necessity' inquiry, which is based in science," and concludes that, "citing the alleged 'experimental' nature of

transsexual surgery as a basis for non-coverage of all transsexual surgery is not reasonable in light of the unchallenged new evidence and contributes to our conclusion that the NCD is not valid.”

The direct effect will be that Medicare claims for these procedures can no longer be categorically denied on this basis. CMS has 30 days from the date of the ruling to implement policy changes. This is clearly significant for transgender Medicare recipients who might wish to access GRS. In the 2011 National Transgender Discrimination Survey, 7 percent of transgender respondents reported having Medicare coverage.<sup>1</sup> There may be more far-reaching implications as well. NCD 140.3 has been an important reference in discussion of GRS coverage, as it was the only authoritative health care policy statement in conflict with medical consensus in the U.S., and as it represented a formal position of the U.S. Secretary of Health and Human Services.

## Comparison of Health Insurance Medical Policies

The author reviewed several commercial health insurance plans’ current medical policy documents and clinical guidelines for medical underwriting specific to GRS.<sup>22-30</sup> These policies generally conform to DSM-V and ICD-10 diagnostic criteria; and although specific eligibility criteria vary among the policies, they generally follow the clinical guidelines established by WPATH SOC-7 and the Endocrine Society. Without exception, the policies reviewed designate the following surgical procedures as cosmetic, and therefore not medically necessary when related to GRS:

- Blepharoplasty
- Breast augmentation
- Face lift
- Facial feminizing surgery (facial bone reconstruction)
- Hair removal or hair transplantation
- Liposuction
- Reduction thyroid chondroplasty
- Rhinoplasty
- Voice modification surgery.

Of those reviewed, only Aetna’s GRS policy<sup>26</sup> contains any reference to puberty suppression as a treatment for gender dysphoria in adolescents. The Aetna policy defines the use puberty suppression with GnRH analogues as medically necessary when WPATH criteria are met.

Highmark does not mention GnRH treatment in its medical policy on GRS, but it has a separate medical policy bulletin on treatment with the GnRH analog leuprolide/leuprolide acetate (Lupron). That policy does not list gender dysphoria in adolescents as an eligible condition for treatment.<sup>31</sup>

## IV. GRS Coverage and the Affordable Care Act

The Patient Protection and Affordable Care Act (ACA) of 2010 has important implications for the coverage of transgender health care services. The primary impact of this legislation concerns insurance exclusions based on the classification of transgender status as a preexisting condition.

According to Kahn (2011), “Insurers have sometimes excluded gender-confirming care from healthcare plans by classifying gender variance as a preexisting condition. A preexisting condition is generally defined as a health-related problem that exists prior to enrolling in a health insurance plan. A preexisting condition is no longer a health risk to be insured against, but a definite occurrence that may or may not require treatment.”<sup>13</sup>

Health insurance plans have used preexisting condition exclusions as grounds for refusing to enroll transgender people in plans, to charge transgender people higher premiums, limit benefits, and to deny payment for claims unrelated to gender reassignment solely on the basis of transgender status.<sup>13</sup>

Implementation of ACA in 2014 effectively bans such insurance practices. Section 1557 of ACA prohibits discrimination on the basis of race, color, national origin, sex, age, or disability under “any health program or activity, any part of which is receiving Federal financial assistance ... or under any program or activity that is administered by an Executive agency or any entity established under [Title I of ACA]...” including federally qualified health insurance plans offered through Health Insurance Marketplaces.<sup>32</sup>

The U.S. Department of Health and Human Services has clarified that discrimination based on “sex” includes discrimination based on “sex stereotyping and gender identity.”<sup>33,34</sup>

ACA requires that beginning January 1, 2014, all health plans offered in the individual and small group markets, both inside and outside of Federally-Facilitated Marketplaces (FFMs), must provide Essential Health Benefits (EHBs). C.F.R. 45 156.125(a) states: “An issuer does not provide EHB if its benefit design, or the implementation of its benefit design, discriminates based on an individual's age, expected length of life, present or predicted disability, degree of medical dependency, quality of life, or other health conditions.”<sup>32</sup>

This means that no person may be denied health insurance coverage on the basis that being transgender might be considered a preexisting condition.

ACA also provides a formal mechanism, effective upon enactment of the law, whereby individuals may file complaints of discrimination. The HHS Office for Civil Rights is currently accepting and investigating complaints.<sup>35</sup>

On March 14, 2014, CMS issued a “Final 2015 Letter to Issuers in the Federally Facilitated Marketplaces,” which provides detailed guidance on the standards health plans must meet in

order to be certified as Qualified Health Plans (QHPs) and the process by which QHP applications will be reviewed and assessed for compliance with nondiscrimination standards.

CMS or states will evaluate QHP applications for compliance with these standards. CMS outlines its approach to assessing nondiscrimination compliance, and encourages states performing plan management functions to use the same approach.

In order to obtain QHP certification for the 2015 benefit year, issuers must comply with the nondiscrimination standard set forth in 45 C.F.R. 156.200(e), which includes gender identity as a protected classification. As part of the certification process, “CMS will collect an attestation that issuers’ QHPs will not discriminate against individuals on the basis of health status, race, color, national origin disability, age, sex, gender identity or sexual orientation.”

Additionally, 45 C.F.R. 156.225 states that QHP issuers must not “employ marketing practices or benefit designs that will have the effect of discouraging the enrollment of individuals with significant health needs in QHPs.”

CMS will assess nondiscrimination compliance in QHP benefit design using outlier analysis of cost-sharing structure and analysis of language contained in the “explanations” and “exclusions” sections of a QHP “Plans and Benefits Template.”

CMS explains that its outlier analysis will involve “[comparing] benefit packages with comparable cost-sharing structures to identify cost-sharing outliers with respect to specific benefits,” including inpatient hospital and mental/behavioral health stays, specialist and emergency visits, and prescription drugs.

The review of QHP applications will seek to identify any “potentially discriminatory anomalies or wording” in benefits and coverage. “Discriminatory cost-sharing language would typically involve reduction in the generosity of a benefit in some manner for subsets of individuals other than based on clinically indicated common medical management practices.”

If this review process identifies a potentially discriminatory cost-sharing structure or practice, CMS may give issuers a chance to address the issue before denying certification. “Specifically, we anticipate that CMS may offer the issuer will be given the opportunity to submit a justification with supporting documentation to CMS explaining how the plan is not discriminatory or to make a change to its application to address the concern.”

To date, CMS has not specifically addressed whether exclusion or limitation of benefits and coverage for GRS would be considered discriminatory. Some state insurance regulators, however, have issued bulletins that explicitly prohibit exclusions for GRS or “gender transition services” in health insurance. Such prohibitions have been issued in two states—California and Vermont—and the District of Columbia.

On March 15, 2013, the D.C. Department of Insurance, Securities and Banking issued a bulletin stating that exclusionary provisions in health plans related to gender reassignment were in

violation of the D.C. Unfair Insurance Trade Practices Act, which prohibits discrimination based on “gender identity or expression.”<sup>36</sup> The bulletin states that examples of discriminatory language include exclusions for: “Any treatment or procedures designed to alter an individual’s physical characteristics to those of the opposite sex”; “Sex transformation operations and related services”; and, “Sex change: Any treatment, drug, service or supply related to changing sex or sexual characteristics.” Such language was deemed “no longer enforceable,” and companies writing individual and group health insurance policies in D.C. were required to update their policies accordingly.

On April 9, 2013, the California Department of Managed Health Care issued a letter directing health plans to, “Ensure that individuals are not denied access to medically necessary care because of the individual's gender, gender identity or gender expression,” and to, “revise all current health plan documents to remove benefit and coverage exclusions and limitations related to gender transition services.”<sup>37</sup>

On April 22, 2013, the Vermont Department of Financial Regulation, Insurance Division issued a bulletin stating: “Insurance companies, health insurance companies, nonprofit hospital services corporations, nonprofit medical services corporations, non-ERISA employer group plans and managed care organizations shall not exclude coverage for medically necessary treatment including gender reassignment surgery for gender dysphoria and related health conditions.”<sup>38</sup> The bulletin states that, “new insurance policy forms filed by insurers will be disapproved by DFR if they exclude such coverage,” and that the rule applies to QHPs to be offered in Vermont.

Insurance regulators in two other states, Colorado and Oregon, prohibit exclusions that are solely based on gender identity—that is, insurance companies must not deny coverage for medically necessary services related to the treatment of gender dysphoria if the same services are covered for other indications.

The Oregon Department of Consumer and Business Services, Insurance Division, states in a bulletin dated December 19, 2012: “Any health care services that are ordinarily or exclusively available to individuals of one sex may not be denied based on the perceived gender identity of a person when the denial or limitation is due only to the fact that the insured is enrolled as belonging to the other sex or has undergone, or is in the process of undergoing, gender transition.”<sup>39</sup>

In a bulletin dated March 18, 2013, the Colorado Department of Regulatory Agencies, Division of Insurance states that health plans may not “deny, exclude, or otherwise limit coverage for medically necessary services, as determined by an individual’s medical provider, if the item or service would be provided based on current standards of care to another individual without regard to their sexual orientation,” where the definition of “sexual orientation” under Colorado law includes “transgender status.”<sup>40</sup>

Self-insured plans are exempt from ACA requirements specific to QHPs as defined in 42 U.S.C. §18021; however, CMS' responses to QHP applications for the 2015 benefit year could potentially influence how GRS benefits are defined subsequently in medical insurance policies.

A self-insured plan may or may not be subject to any of the aforementioned state prohibitions on exclusion of GRS benefits, depending upon whether the plan is governed by the federal Employee Retirement Income Security Act (ERISA), which would preempt state regulations.

## V. Utilization and Costs

Available evidence suggests that the cost of providing health insurance coverage for GRS is low, and that actuarial projections tend to overestimate both the costs and utilization of gender transition services. A 2013 report by Jody L. Herman of the Williams Institute at UCLA provides a comprehensive analysis of transition-related coverage costs and utilization. The report presents findings from an original study of employers and reviews prior research findings.<sup>41</sup>

The study is based on survey data collected in 2013 from 34 employers that provided transition-related coverage to employees through their health benefits plans. Many of these employers (n=15) had 1,000-9,999 employees, and most employers of that size (n=11) provided health care benefits solely through self-insured plans using UnitedHealthcare, Anthem, Cigna, or Aetna as a third-party administrator (TPA).

Six of the 15 employers with 1,000-9,999 employees reported no costs associated with adding transition-related coverage, such as increases in premiums in the first year, and no subsequent costs. Three of the 15 employers reported no initial costs to add coverage, but unknown subsequent costs based on utilization. Two employers reported that the costs attributable to adding transition-related coverage were unknown due to other plan changes made concurrently.

Two employers with 1,000-9,999 employees reported actual costs based on utilization: These employers characterized actual costs incurred for transition-related claims over a one-year period as "negligible" or "minimal," as they amounted to less than 1 percent of total health care expenditures or claims paid.

Another employer with approximately 10,000 employees whose plan covers approximately 21,000 individuals reported that the actual cost of transition-related claims over two years was approximately \$5,500, or 0.004 percent of total health care expenditures (\$144 million) over the same two years.

Two employers with 1,000-9,999 employees reported costs based on actuarial projections: One employer reported an increase of \$5 (or 1 percent) to its \$485 per member per month premium cost due to adding transition-related coverage in the first year; the second employer also reported an initial increase of 1 percent in the plan premium. These employers chose to absorb



the increased costs rather than increase employee premiums, and both reported that they believed the benefit had not been utilized.

Herman estimates annualized rates of transition-related health benefit utilization for employers of various sizes—an average annualized rate per 1,000 employees, as well as upper and lower bounds based on actual utilization data reported by survey participants.

For employers with 1,000-9,999 employees, the average annualized utilization rate was 0.107 claimants per 1,000 employees, with an upper bound of 0.214 and a lower bound of 0.027. In other words, roughly 1 in 10,000 employees might be expected to make claims for transition-related benefits in a given year.

Herman also summarizes other available utilization and cost data based on prior research. The most widely cited data on the costs of GRS coverage come from the City and County of San Francisco, Calif., as detailed in a 2007 memorandum published by the San Francisco Human Rights Commission.<sup>42</sup>

In 2001, the City and County of San Francisco removed transgender exclusions from its employee health plans and began to cover GRS through its self-insured City Plan, while HMOs covered related services such as hormone treatments and psychotherapy. An initial actuarial estimate projected the benefit would cost \$1.75 million per year, assuming that in population of about 100,000 members, 35 members per year would make claims costing \$50,000 per member.

Members were charged an additional \$1.70 per month to cover the projected cost; the surcharge was reduced after 2004 due to the surplus in monies collected specifically for the transgender benefit. From July 2001 to July 2004, the City Plan paid out approximately \$156,000 on seven surgical claims. From 2004-2005, the City Plan paid out \$183,000 on 11 claims. HMOs during this time paid out \$3,300 on claims for hormone therapy and psychological services made by 14 members. From 2005-2006, the City Plan and HMOs collectively paid just over \$44,000 on claims submitted by two individuals. The grand total collected from members from 2001-2006 was \$5.6 million. Only \$386,417 was paid on a total of 37 claims—about \$77,000 per year, or 1/25 of the projected annual expenditure.

Herman calculated an average annualized utilization rate of 0.127 per 1,000 employees based on the data provided by the City and County of San Francisco.<sup>41</sup>

In April 2012, the State of California Department of Insurance released an economic impact assessment of removing insurance coverage exclusions for GRS and related treatments.<sup>43</sup> The report concludes that removing these exclusions “will cost little or nothing in the short run and may produce longer-term cost savings and improved health benefits for transgender people.”

The report provides a detailed analysis of utilization and cost data reported by the University of California (UC) health plans for the period of July 2005 to December 2011—6.5 coverage years

(CY)—the City and County of San Francisco experience (summarized above), and utilization estimates from a study based on a small sample of private employers; it also cites data reported by municipalities in other states.

The California Department of Insurance staff analyzed UC utilization in terms of rates per 1,000 employees as well as rates per 1,000 covered lives, noting that, “utilization data relying on covered lives is a more accurate representation of actual utilization.”

Based on numbers of claims, UC utilization rates ranged from 0.011-0.093 per 1,000 covered lives per year, with an average rate of 0.062, over a five-year period (excluding CY 2005). Rates per 1,000 covered lives were converted to rates per 1,000 employees based on a 2:1 ratio of members to employees. UC utilization rates per 1,000 employees for the same period ranged from 0.022-0.187, with an average rate of 0.124.

California Department of Insurance staff also calculated an average rate based on the number of members with claims. From July 2005 to December 2011, 27 individuals had claims for transition-related services, some with multiple claims: “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.”

Both Herman’s report and the California Department of Insurance report cite unpublished data from a survey, conducted in 2009 by Jamison Green and Associates, of 15 Fortune 500 companies with health plans providing coverage for transition-related services. Herman asserts, based on communication with the authors of the study, that the California Department of Insurance report misstates the maximum estimated utilization rate derived from the sample and directly quotes one of the study’s authors. In Jamison Green and Associates’ sample of private employers with 1,000-9,999 employees, the maximum annualized utilization rate was 0.22 per 1,000 employees, as cited by Herman (the California Department of Insurance cited a rate of 0.35), and the minimum was 0.0015 per 1,000 employees.

The California Department of Insurance report includes data on actual costs attributed to GRS and related transgender services at UC, and reviews cost projections from cities that had recently removed transgender exclusions from their employee health plans. For the largest UC health plan, maximum claim costs over the 6.5-CY period were \$0.20 per member per month, representing 0.05 percent of the total plan premium. Dollar amounts of claims “varied from \$67 to \$86,800 with an average cost of \$29,929 per transgender person requiring treatment.”

The cities of Berkeley, Calif., Portland, Ore., and Seattle, Wash., eliminated transgender exclusions from their health plans between 2011-2012. Berkeley and Seattle absorbed premium increases of 0.2 percent and 0.19 percent respectively, based on projected cost increases due to utilization of transition-related services. The City of Portland projected a 0.08 percent increase in its health care costs.<sup>43</sup>

“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,” the California Department of Insurance report states. “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.”

The foregoing discussion of costs does not account for potential costs savings due to adding coverage of transition-related services. Unfortunately, there are insufficient data upon which to base a reasonable, let alone statistically valid, estimate of costs savings to employers or health plans.

The California Department of Insurance cites a number of studies which show reductions in suicide risk among patients receiving treatment for gender dysphoria. Because medical and psychological care related to attempted suicide is costly, and suicide attempts are common among transgender individuals, providing transition-related care could possibly result in cost savings.<sup>43</sup> Overall, evidence shows that treatment of gender dysphoria results in improved psychological functioning and quality of life,<sup>3</sup> which in the long term could lead to decreased medical and behavioral health care costs for individuals receiving treatment.

Although such instances should not be assumed to be common, a recent case report in the medical literature provides a dramatic example of how providing safe and effective medical treatment for gender dysphoria can be cost-effective: The report details a case in which a transgender woman without access to GRS attempted self-castration, and as a result incurred nearly \$15,000 in medical expenses, whereas an elective outpatient orchiectomy would have cost \$4,000.<sup>44</sup>

Herman’s study suggests that providing transgender-inclusive coverage may benefit employers in other ways. Twenty-five of the employers surveyed commented on ways in which they perceived adding transition-related coverage to be advantageous: 15 employers stated that doing so “made them more competitive as an employer and would improve recruitment and retention”; 15 employers stated that it was “a matter of equality or fairness, which reflects their values”; and 12 employers stated that providing the coverage “provides for the needs of their employees and improves employee satisfaction and morale.”

## **VI. Discussion and Conclusions**

There is an overwhelming consensus of medical opinion that GRS is a necessary treatment for many individuals suffering from gender dysphoria, and that health insurance should cover these procedures.

Available data show that utilization and costs tend to be lower than expected. Based on the research cited here, an annualized utilization rate of about 0.2 per 1,000 employees may be considered a “worst case” scenario, in terms of risk, for an employer with less than 10,000

employees providing GRS and related transgender benefits through its health plan. Using a 2:1 member-to-employee ratio, the maximum expected utilization rate per 1,000 covered lives per year would be 0.1. A health plan with approximately 9,200 covered lives might therefore expect no more than one claimant to use the GRS benefit per year.

Assuming annual claim costs would amount to \$0-\$87,000 per year, or \$30,000 on average over several years; and given approximately \$26 million in total health benefits paid annually; utilization of this benefit might increase total costs by 0-3 percent in a given year, or about 1 percent per year, on average.

If, however, utilization were consistent with Herman's estimated average annualized rate of 0.107 per 1,000 employees (again using a 2:1 member-to-employee ratio for conversion) the same plan might anticipate an annualized utilization rate of 0.054 claimants per 1,000 covered lives—or one claimant every two years.

The question of specific procedures that should be included in GRS health insurance benefits is unresolved. Some, but not all, individuals require genital surgery and breast/chest surgery to relieve gender dysphoria. Other surgical procedures that may be medically necessary for some individuals with gender dysphoria are almost universally labeled cosmetic, and therefore excluded from coverage. For a self-insured employer that opts to provide coverage for GRS, the scope of benefits covered may be determined by a TPA's medical policy.

Another question that should be considered is coverage of puberty-suppression hormone therapy for adolescents with gender dysphoria. It is unclear whether this is a covered benefit in many GRS medical policies. Further investigation into coverage limitations for GnRH analogues and the associated costs of GnRH treatment may be warranted.

The implementation of the nondiscrimination provisions in ACA clearly bars insurance companies from refusing to enroll a transgender person based on the classification of gender identity as preexisting condition. Other ACA nondiscrimination standards apply to QHPs seeking certification for 2015, but do not apply self-insured health plans.

The recent ruling invalidating Medicare's NCD which excluded GRS coverage is likely to be consequential, although this is a very recent development and its implications are not fully appreciable. At the very least, the NCD can no longer be cited as a justification for excluding coverage of these services. As the HHS Departmental Appeals Board notes in its ruling, it is highly significant that CMS declined to defend the NCD or to rebut any of the evidence presented to challenge it, which may be taken as an indication that federal policy is not at odds with the medical consensus regarding the necessity of providing access to transgender-specific health care. ■

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