

MEMORANDUM

To: Mona Moon

From: Kirsten R. Schatten, ASA, MAAA
Kenneth C. Vieira, FSA, MAAA

Date: November 29, 2016

Re: Transgender Cost Estimate

Section 1557 of the ACA prohibits discrimination in health programs on the basis of age, race, sex, national origin, color, or disability. We have attached Segal's publication in June 2016 that provides additional details and supporting documentation. It is likely that you are subject to the law ("covered entities"), because the State has a Medicaid program that receives federal funding from the Department of HHS and you also receive federal HHS funding from the RDS program. Plans must provide coverage for transgender health care no later than plan years beginning on or after 1-1-17. This includes removing exclusions for gender identity treatment.

This brief memo is focused on the calculation of potential cost impact to the North Carolina State Health Plan. Please note that there is a lack of information and data to provide specific information on estimated cost to the Plan. Therefore, we have provided a range of estimates based on potential utilization information gathered from research and treatment cost estimates from BCBSNC. Please also note there are wide variations in some of these studies, and past experience from various counties that have provided coverage long enough to have data to review have shown the prior estimates to be overstated.

Key Assumptions

Three key assumptions drive our cost estimates: prevalence of transgender members, percentage of those who seek benefits (including surgery) and the cost of the various treatment options.

Prevalence – According to the Centers for Disease Control and Prevention (CDC) 2015 Behavioral Risk Factor Surveillance System (BRFSS), approximately 0.58% of adults in the United States self-identify as transgender. This has increased slightly from 2014 & 2013.

The Williams Institute in June of 2016 published a paper entitled "How Many Adults Identify as Transgender in the United States?" which goes a little further by drilling down on prevalence by state and also providing ranges. This paper estimated a prevalence range of 0.35% to 1.03% for North Carolina.

Percentage Who Seek Benefits – Those seeking benefits is difficult to predict since a new benefit may alter past patterns. One study was published by Olyslager, F. & Conway, L. (September 2007) entitled "On the Calculation of the Prevalence of Transsexualism." This paper was presented at the WPATH 20th International Symposium, Chicago, Illinois. This study from 2007 estimates that, of those who identify as transgender, between 0.1% and 0.5% have taken some steps to transition from one gender to another.

NCSHP membership from age 18 to 64 is approximately 472,000. Applying the prevalence and utilization assumptions above, we would expect 8 to 24 members to use transgender benefits.

For those who seek benefits, the vast majority of cost comes from members choosing to have gender reassignment surgery. There are a couple of sources we found (Mohammed A. Memon, MD; February 22, 2016; “Gender Dysphoria and Transgenderism: Epidemiology” Medscape, as well as HealthResearchFunding.Org) that site prevalence rates for adults seeking reassignment surgery of 1 in 30,000 for males and 1 in 100,000 for females. Using these statistics, we would expect 6 males and 3 females in our expected scenario, and we have applied a range of +/- 50% to get a range of 6-13 adults in total.

Cost of Treatment – Information was provided at a very high level from BCBSNC. Their pricing analysis was based entirely on external studies and sources, so they caution that this may differ from what Dr. McCauley or others may say—

- For male to female surgery they assumed roughly \$28K, with \$3,600 in hormonal therapy
- For female to male surgery they assumed about \$56K, with \$7,200 in hormonal therapy

They also noted that there would be fairly substantial counseling costs associated with the surgery—roughly \$10K in a given year.

No other cost estimates were provided.

Financial Impact

Using the above, we have estimated the annual cost to range from \$350,000 to \$850,000. The costs are highly variable based on the assumptions described above. Below is brief summary;

		Prevalence		Estimated Cost	Cost Estimate	
		Low	High		Low	High
Surgical Benefits	Male	3.89	8.76	\$ 41,600	\$ 161,918	\$ 364,316
Surgical Benefits	Female	1.98	4.46	\$ 73,200	\$ 145,195	\$ 326,688
Surgical Benefits	Total	5.88	13.22	\$ 52,267	\$ 307,113	\$ 691,004
Non-Surgical Benefits	Male/Female	2.40	11.12	\$ 15,400	\$ 36,900	\$ 171,288
Total Using Benefits	Male/Female	8.27	24.34		\$ 344,013	\$ 862,292
Adult Members					472,682	
Total PMPM					\$ 0.06	\$ 0.15

There are a few other sources we found and reviewed that provide similar information and would bring us to a similar range of cost estimates. Based on approximately \$3.2 billion of premiums, the cost for NCSHP is estimated to be 0.011% to 0.027% of premium.