



# The Cost of Transgender Health Benefits

Transgender at Work

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# Agenda

- Introductions
- Transgender Background
- Summary of Earlier Work
- Methodology
- Data
- Prevalence Results
- Cost Results
- Cost Prediction Tool for your Company
- Summary
- Q&A

# Introductions

## ☒ Show of Hands

### - Role

☒ HR Benefits

☒ HR Diversity

☒ Employee Resource Group Leader

☒ other

# Introduction to THBs

- ❑ Transsexuals have health care needs that are often not covered on health plans.
- ❑ Employers considering including THBs were concerned that the cost was unknown and might be too high.
- ❑ No good data previously existed for
  - Prevalence of transsexualism
  - Cost of THBs

# HRC Equality Index

☒ Score of 100% is a sign of Excellence.

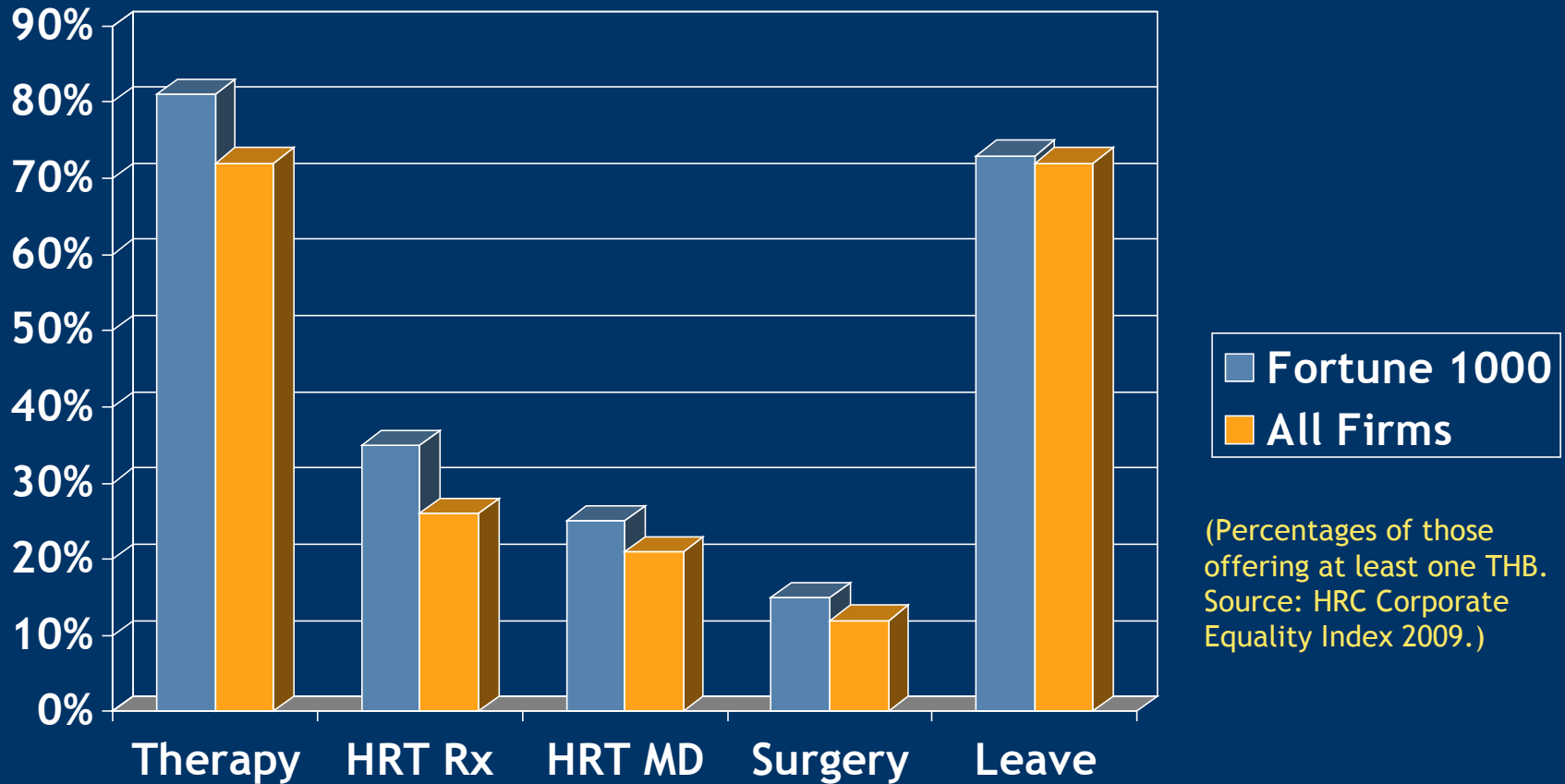
☒ Currently allocates points for

Sexual Orientation in EO Policy ✓	Gender Identity and Expression in EO Policy ✓
Domestic Partner Benefits ✓	Transgender Wellness Benefits ✓

☒ HRC Corporate Equality Index 2009

- 206 Fortune 1000 firms (21%) cover at least 1 benefit
- Of those firms:
  - ☒ 35% state they cover hormones
  - ☒ 15% state they cover surgery

# Employers offering Transgender Health Benefits



# Background

## ☒ Transgender

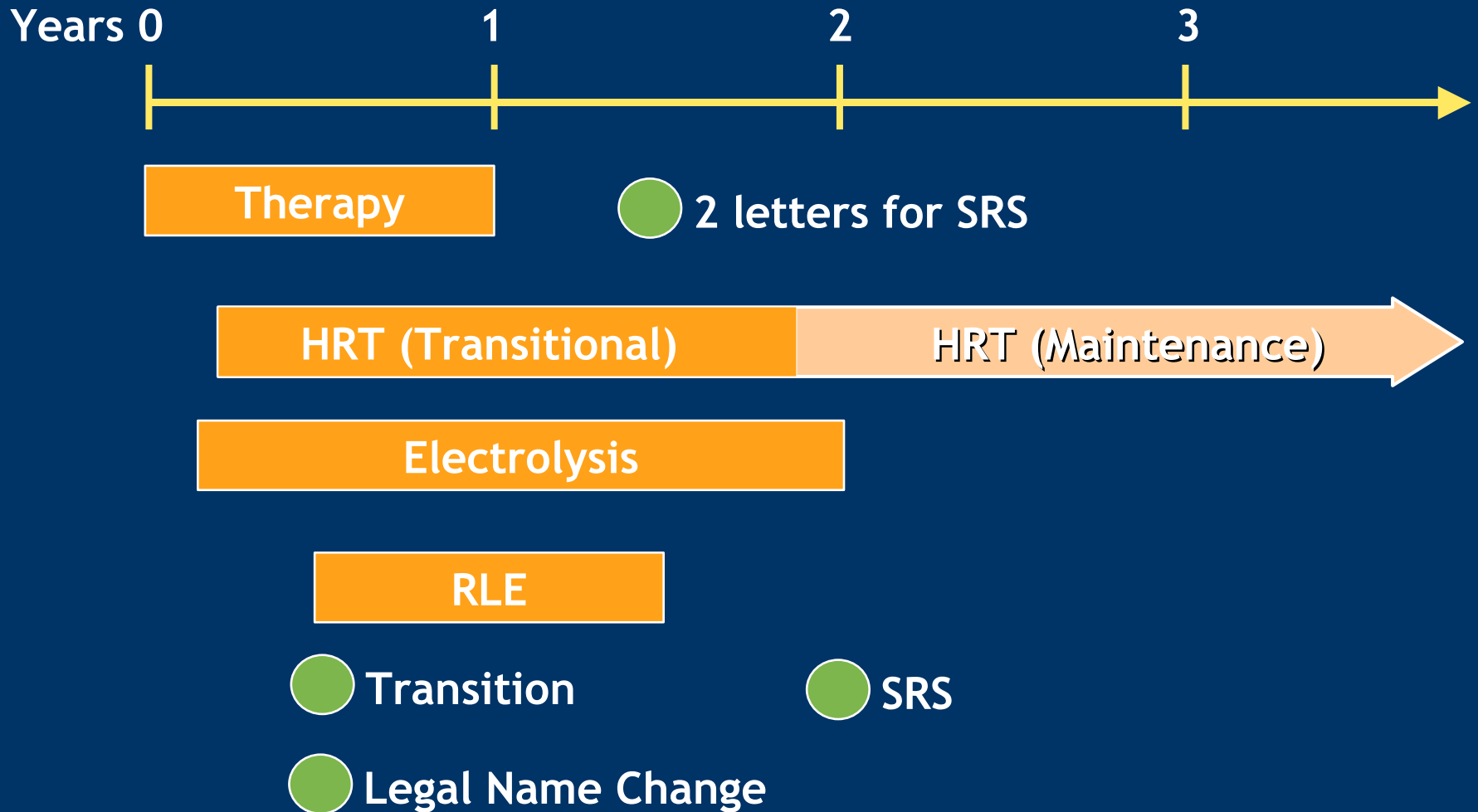
- Transsexuals, Crossdressers, ... others
- MTF or FTM
- Transsexuals who suffer gender dysphoria are evaluated by a therapist
- Gender Dysphoria is a persistent intense distress with one's physical sex characteristics or their assigned sex at birth.
- There is a standard treatment for gender dysphoria (currently termed "Gender Identity Disorder," or "GID," in the clinical literature)
- Standard treatment incurs medical costs

# WPATH Standards of Care (SOC)

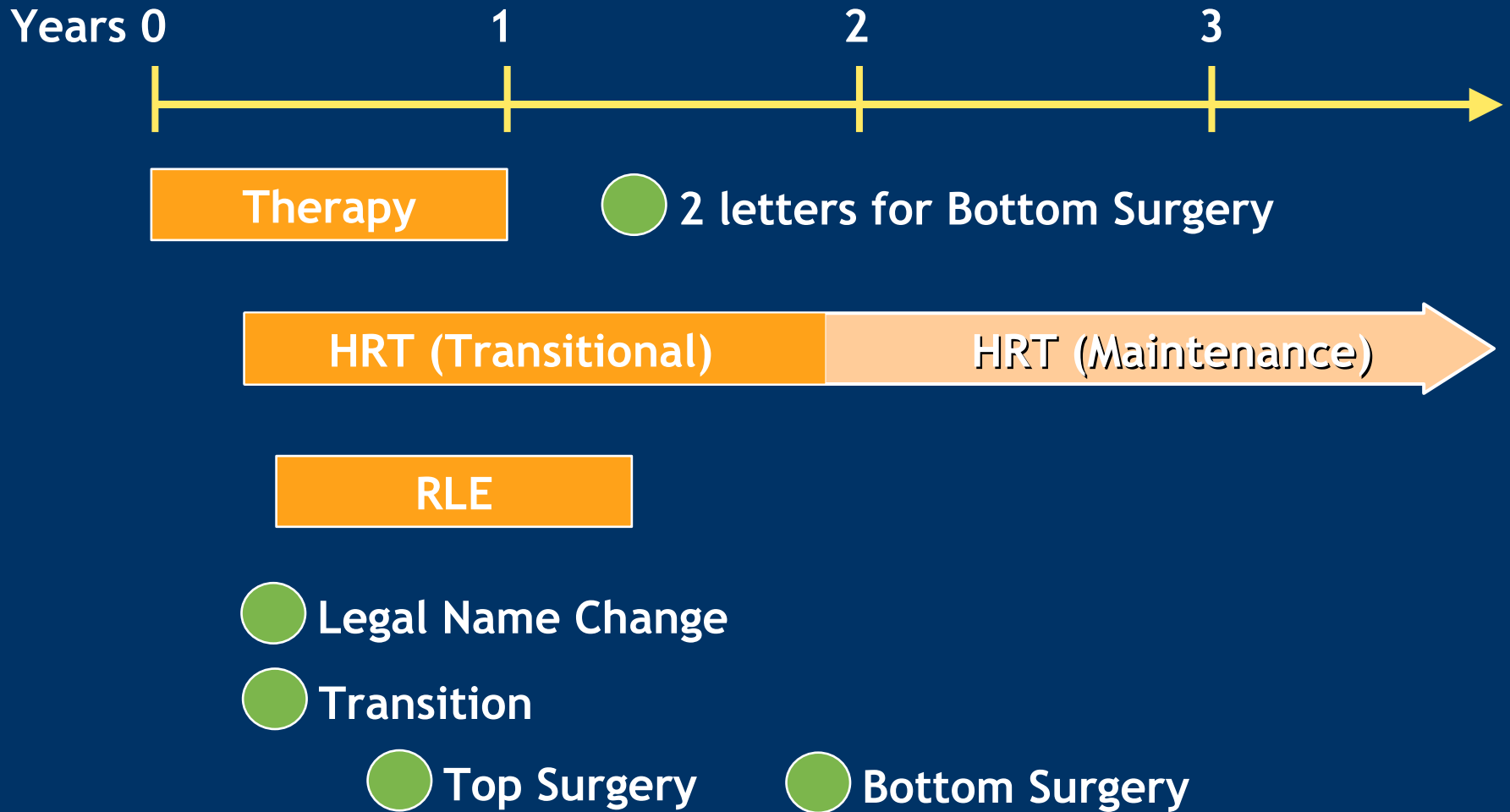
- ✘ SOC Version 6, 2001, World Professional Association for Transgender Health (WPATH, formerly HBGDA.)
- ✘ Standards for treatment of Gender Dysphoria
  - Treatment begins with evaluation and diagnosis of gender dysphoria/GID
  - Letter from therapist for hormones
  - 1 year Real Life Experience
  - 2 Letters, one from a Doctor, for Genital Surgery



# Male to Female Time Line



# Female to Male Time Line



# What is Medically Necessary?

- ☒ See the list of procedures in your handout
- ☒ Decide which procedures are
  - Medically Necessary for TG and non-TG patients
  - Medically Necessary and specific for TG patients
  - Cosmetic
- ☒ How the decision is made
  - Is the treatment covered for non-transgendered patients?
  - Is it stated to be medically necessary by specialists?
  - Is it determined to be medically necessary by insurance carriers?
  - Does the employer tell the carrier to cover it?

# Opinion of the Specialists

- ☒ Quotes from *WPATH* “Standards of Care,” Sixth Version, 2001:
- *Hormones are often medically necessary* for successful living in the new gender.
  - In persons diagnosed with transsexualism or profound GID, *sex reassignment surgery*, along with hormone therapy and real-life experience, is a treatment that has proven to be effective. Such a therapeutic regimen, when prescribed or recommended by qualified practitioners, *is medically indicated and medically necessary*. Sex reassignment is not “experimental,” “investigational,” “elective,” “cosmetic,” or optional in any meaningful sense. It constitutes very effective and appropriate treatment for transsexualism or profound GID.

## 2008 Statement from WPATH

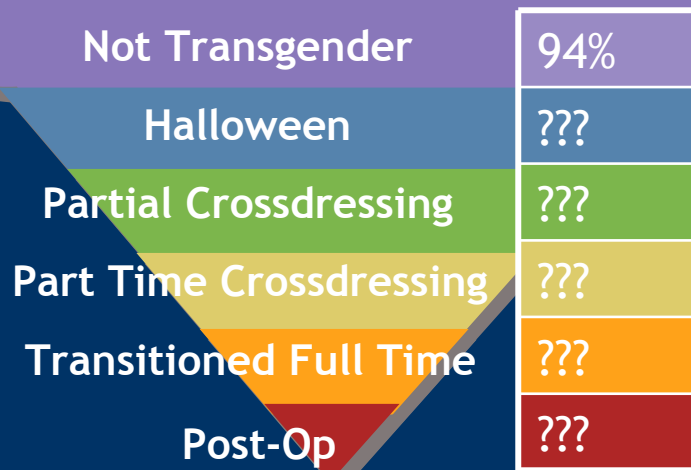
- ☒ Sex reassignment plays an undisputed role in contributing toward favorable outcomes, and comprises **Real Life Experience**, legal name and sex change on identity documents, as well as medically necessary **hormone treatment, counseling, psychotherapy**, and other medical procedures.
- ☒ Medically necessary sex reassignment procedures also include **complete hysterectomy, bilateral mastectomy, chest reconstruction or augmentation** as appropriate to each patient (including breast prostheses if necessary), **genital reconstruction** ..., and certain **facial plastic reconstruction** as appropriate to the patient.

# Health Care Costs

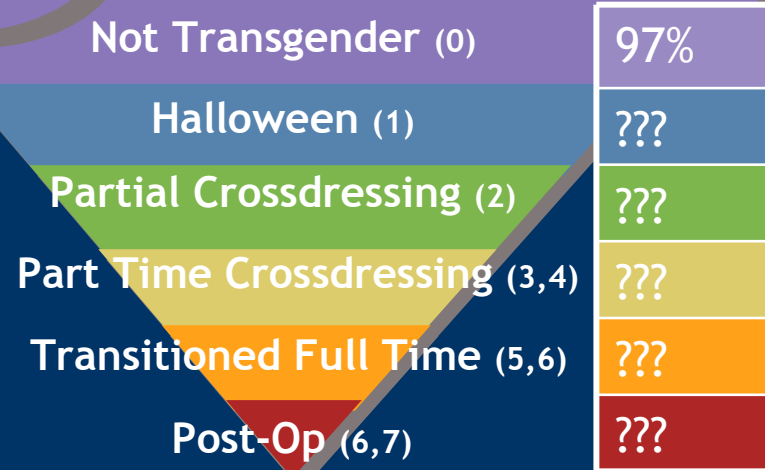
- ☒ **Medically Necessary Procedures Covered for non-TG**
  - Mental Health (Therapy)
  - Hormones (Pharmaceuticals)
  - Doctors visits to support hormones
  - Surgery
    - ☒ **MTF: orchidectomy, penectomy, vaginaplasty, labiaplasty**
    - ☒ **FTM: mastectomy, hysterectomy, metoidioplasty, phalloplasty**
- ☒ **Medically Necessary Procedures (per WPATH)**
  - Breast augmentation surgery
  - Facial feminization surgery
  - Electrolysis
- ☒ **Undetermined**
  - Speech therapy
  - Voice surgery

# How Many Transgendered People are There?

## Male to Female



## Female to Male



# Previous Work: Prevalence

## ☒ Prevalence of Transgenderism (1+)

- Janus 1993: Ever crossdressed: MTF 6%, FTM 3%

## ☒ Prevalence of Gender Dysphoria (5+)

- DSM IV GID 1994: MTF 1:30,000, FTM 1:100,000 based on Walinder, 1967 (Sweden) and Hoenig, 1974 (UK)
- van Kesteren 1996: MTF 1:11,900, FTM 1:30,400 (Netherlands)

## ☒ Prevalence of SRS (6+)

- Cuypere 2006: MTF 1:12,900, FTM 1:33,800 (Belgium)
- Conway 2001: Inherent Prevalence MTF 1:1000 (est.)



# Previous Prevalence Results

Source	Location	Date	Stated Prevalence			Criteria	Population
			MTF	FTM	Years		
Conway	US	2001	2500		40	PS	Age 18-60
Weitze/Osburg	Germany	1993	48000	104000	10	PS (Court)	Adults
van Kestern	Netherlands	1993	11900	30400	18	HRT	Age 15+
van Kestern	Netherlands	1988	18000	54000	14	HRT	Age 15+
Tsoi	Singapore	1988	2900	8300	16	GID	All
Tsoi	Singapore	1977	16000		6	GID	Age 15+
Walinder	Sweden	1971	Inc 500000	Inc 500000	3	PS (Court)	Age 15+
Hoenig/Kenna	UK (part)	1968	34000	108000	11	GID	Age 15+
Pauly	US	1968	100000	400000	1	GID	All
Walinder	Sweden	1967	37000	103000	2	GID	Age 15+

# Cost Experience with Employers

## ☒ Lucent 2000-2003

- Paid for 2 surgeries, total \$20,000 (\$5,000/year)
- 150,000 employees in 2000, 33,000 in 2003

## ☒ Avaya 2001-2003

- No surgeries, \$0
- 40,000 employees

# San Francisco's Experience

- ☒ San Francisco, 2006 (37,000 employees, 60,000 insured)
  - Forecast 35 surgeries/year, \$750,000/year
  - Actual
    - ☒ Surgery: 5 years, 11 people, \$183,000 (\$36,600/year)
      - All in years 1-4, e.g. pent-up demand.
    - ☒ HRT + Therapy: 1 year, 14 people, \$3,300
- ☒ Quote from SF Mayor and Human Rights Commission, 3/06:
  - “Unlike the fears expressed, none of the concerns came to pass. ... Due to its obvious affordability ... the pricing will change. While the benefits are staying the same, the transgender cost component has either substantially decreased or has been eliminated altogether. ... The beneficial cost data has already led two of the HMOs to ... treat the benefit just as it does other medical procedures such as gall bladder removal or heart surgery.”

# Methodology

- ☒ Surveys sent to 55 WPATH surgeons and clinics worldwide. 14 responses, 12 of 15 *major surgeons*
  - # of *primary surgeries* in 2001, MTF & FTM
  - Total cost, MTF & FTM
  - % who were US residents, MTF & FTM
  - Questions about FTM bottom surgery.
- ☒ Subject matter experts advice on percentages in each treatment
- ☒ Known standard costs for Therapy, Hormones, Doctors

# Results: Surgical Data

	MTF	FTM	Total
# Surgeries (all surgeons of US patients)	995	500	1495
Total Cost (\$ millions)	\$10.31	\$8.97	\$19.28
Average surgery cost	\$10,400	\$17,900 (top+bottom)	\$12,900
% US residents	74%	86%	77%
# Surgeries on US residents	736	430	1166

# FTM Surgical Data

Surgery	% of FTMs	Average Cost
Mastectomy / Chest Reconstruction	80%	\$8,500
Hysterectomy & Oophorectomy	50%	\$15,000
Metoidioplasty, or	5%	\$10,500
Phalloplasty	6%	\$23,750

# Nonsurgical Costs (Average Patient)

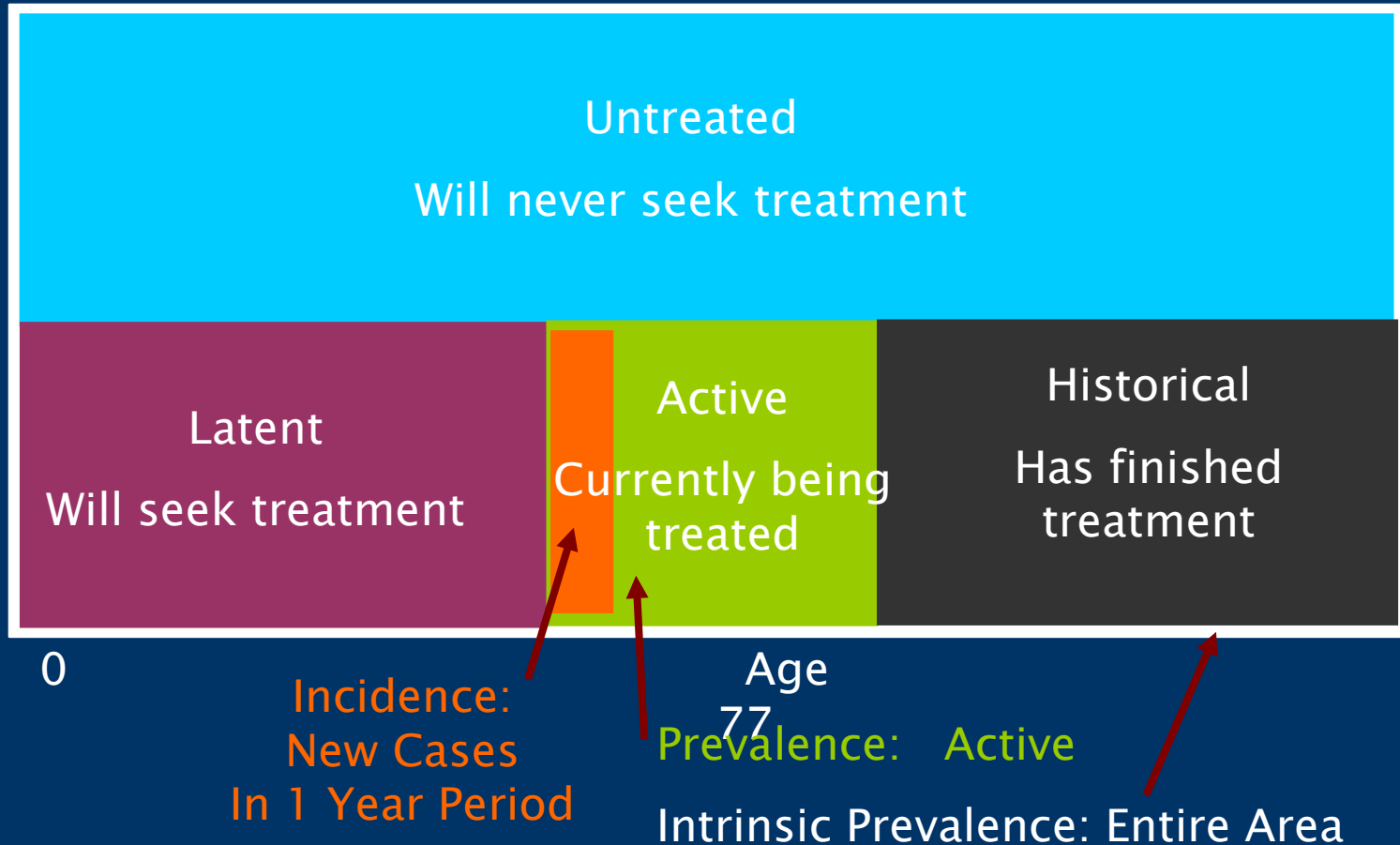
Cost / Patient	Year 1	Year 2	Years 1+2	Year 3	Years 3+
Therapy	\$900	\$188	\$1088	\$0	\$0
HRT Rx	\$807	\$2,129	\$2,936	\$363	\$9,792
HRT MD	\$510	\$385	\$895	\$255	\$6,879

# Incidence vs. Prevalence vs. Inherent Prevalence

- ☒ **Incidence:** Number treated in a certain time (e.g. 1 year) compared to population at risk (often Age 15+.)
  - Walinder 1971: 9 people had name change each year (on average) out of pop. 6,000,000 age 15+: 1 year Incidence 1:667,000
  
- ☒ **Prevalence:** Number in population being treated during measured interval compared to population at risk.
  - Tsoi 1977: 56 MTFs being treated in Singapore for GID during 5 year period 1971-1976 out of pop. 900,000 age 15+: Prevalence 1:16,000.
  - Authors have commented: Actual prevalence is higher.
  
- ☒ **Inherent Prevalence:** Number in population who have/had the condition (will be treated, being treated, treatment is complete, never treated) compared to population at risk (all ages.)
  - Conway 2001: 1500-2000 MTF SRS/year, male birth rate 2,000,000/year: Inherent Prevalence 1:1000 - 1:1300



# Incidence, Prevalence and Intrinsic Prevalence



# What is the Inherent Prevalence of SRS?

- 1:1,000
- 1:3,000
- 1:10,000
- 1:30,000

# What is the Inherent Prevalence of SRS?

Total	MTF	FTM
<del>☒ 1:1,000</del>		
☒ 1:3,000	1:2,500	1:4,200
<del>☒ 1:10,000</del>		
<del>☒ 1:30,000</del>		

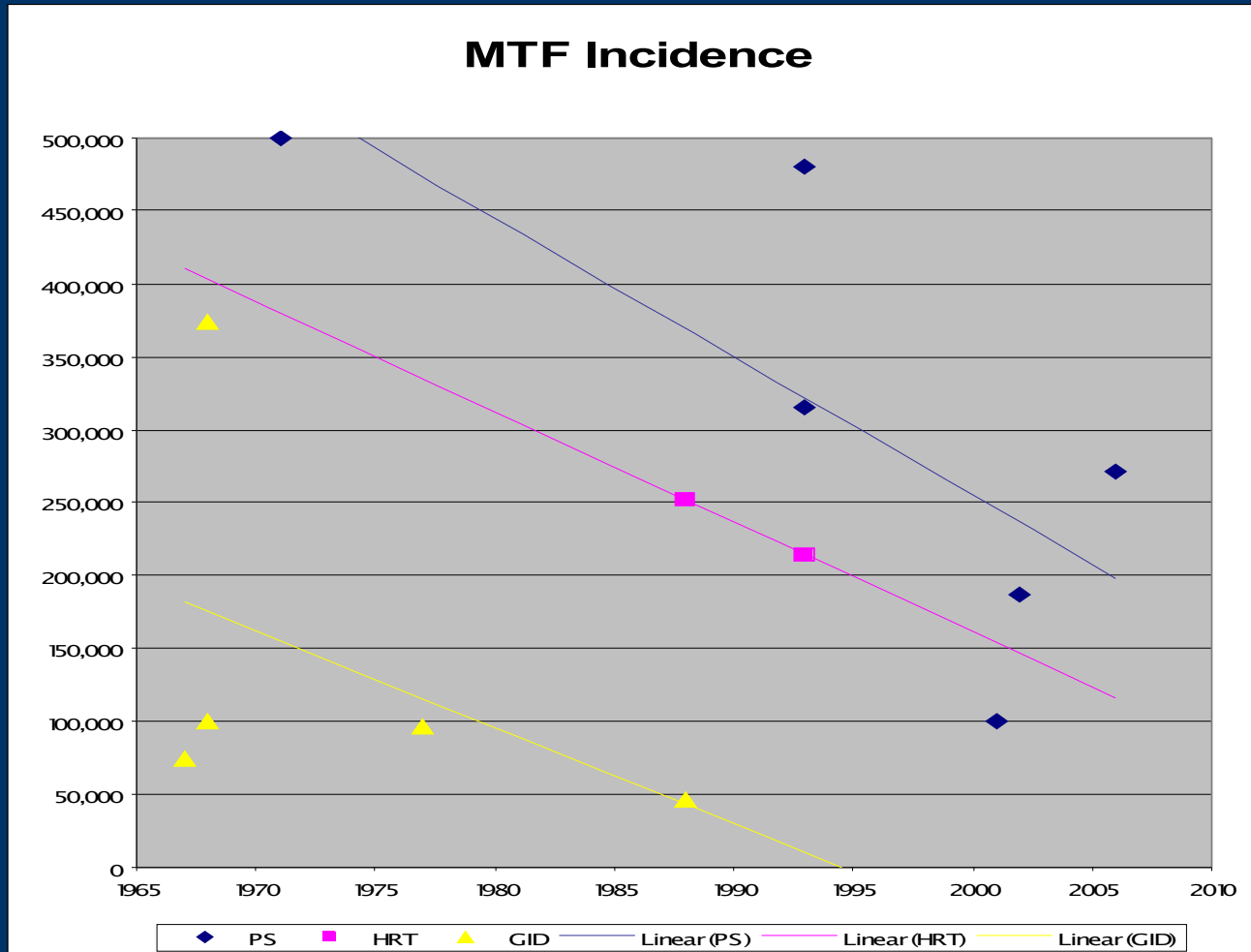
Surgeries/Year	1,166	
US Residents	281,421,906	
1 year Incidence SRS	1:241,295	.0004%
Life Expectancy	77	
Ratio SRS in lifetime	1:3,134	.032%

# Making Sense of Prevalence Results:

## Translate into common terms: Annual Incidence

Source	Country	Yr	Stated Prevalence				Criteria	Pop-ulation	MTF Incidence			FTM Incidence		
			MTF	FTM	Yrs				PS	HRT	GID	PS	HRT	GID
Cuyper	Belgium	2006	12900	33800	21	PS	Age 15+	270,900			709,800			
Horton	US	2002	2533	4167	74	PS	All	187,496			333,415			
Conway	US	2001	2500		40	PS	Age 18-60	100,000						
Weitze/Osbug	Germany	1993	48000	104000	10	PS (Court)	Adults	480,000			1,040,000			
van Kestern	Neth.	1993	11900	30400	18	HRT	Age 15+	315,000	214,200		804,706	547,200		
van Kestern	Neth.	1988	18000	54000	14	HRT	Age 15+		252,000			756,000		
Tsoi	Singapore	1988	2900	8300	16	GID	All			46,400			132,800	
Tsoi	Singapore	1977	16000		6	GID	Age 15+			96,000				
Walinder	Sweden	1971	Inc 500000	Inc 500000	3	PS (Court)	Age 15+	500,000			500,000			
Hoenig/Kenna	UK (part)	1968	34000	108000	11	GID	Age 15+			374,000			1,188,000	
Pauly	US	1968	100000	400000	1	GID	All			100,000			400,000	
Walinder	Sweden	1967	37000	103000	2	GID	Age 15+			74,000			206,000	

# Making Sense of Prevalence/Incidence Results



# Treatment Estimation using Ratios

	MTF / 100	MTF Intr Prev 1:	MTF % of Pop	FTM / 100	FTM Intr Prev 1:	FTM % of Pop
GID in Population	<del>200</del>	757	.132%	<del>200</del>	<del>1401</del>	.071%
Seek Treatment	120	1262	.079%	120	2336	.043%
GID Diagnosis	100	1514	.066%	100	2803	.036%
Hormones	90	1682	.059%	83	3377	.030%
Transition Full Time	70	2163	.046%	83	3377	.030%
Primary Surgery	60	2524	.040%	67	4183	.024%

# Quiz - How much does each hospitalization cost?

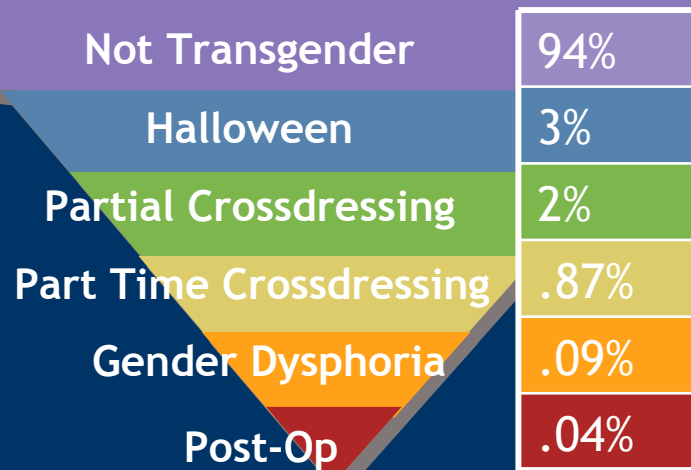
<input checked="" type="checkbox"/> Chest Pain	<input checked="" type="checkbox"/> \$11,900
<input checked="" type="checkbox"/> Diabetes in Adults	<input checked="" type="checkbox"/> \$16,100
<input checked="" type="checkbox"/> Angioplasty	<input checked="" type="checkbox"/> \$43,250
<input checked="" type="checkbox"/> Sex Reassignment Surgery	<input checked="" type="checkbox"/> \$12,900
<input checked="" type="checkbox"/> Gall Bladder Surgery w/ complications	<input checked="" type="checkbox"/> \$36,500
<input checked="" type="checkbox"/> Hip/Knee Replacement	<input checked="" type="checkbox"/> \$38,500

Based on US Government - Health & Human Services 2007 data for all except SRS.

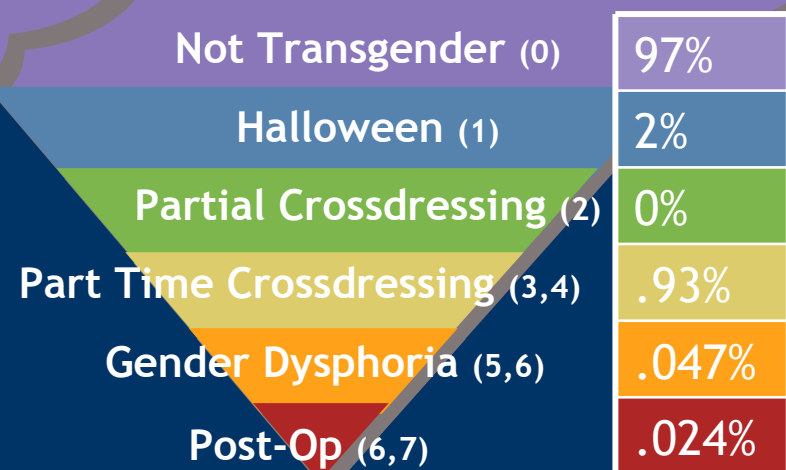
[www.cms.hhs.gov](http://www.cms.hhs.gov)

# How Many Transgendered People are There?

## Male to Female



## Female to Male





## What was the annual cost per resident for SRS?

With all these US residents having surgery, if you spread out the cost over all US residents, what was the annual cost per resident for SRS?

\$.05

\$1.75

\$15

\$189

# The cost per resident for SRS

With all these US residents having surgery, if you spread out the cost over all US residents, what was the annual cost per resident for SRS?

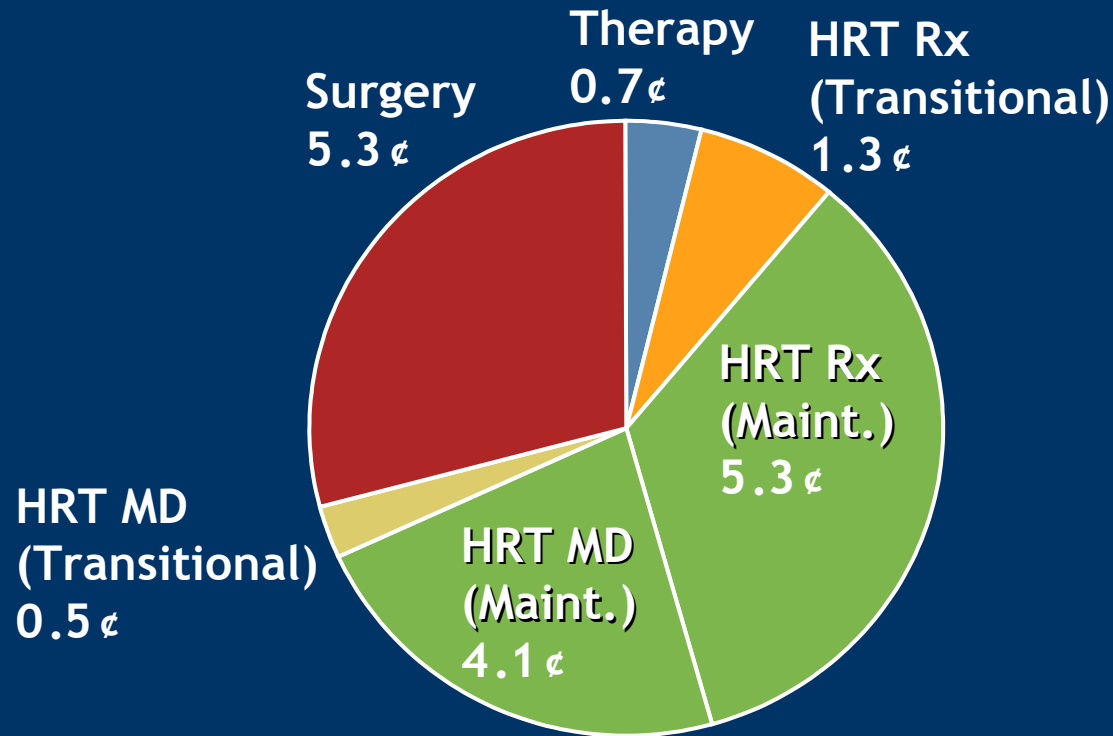
~~\$1.75~~  
 ~~\$15~~  
 ~~\$189~~  
 **\$.05**

US Surgeries/Year	1,166
Average Cost	\$12,895
Total Cost	\$15,000,000
# US Residents	281,000,000
Cost/Insured	\$.053

# Total Annual Cost per Resident (2001)

	Total Cost (millions)	Cost / Insured
Therapy	\$2.0	0.7¢
HRT Rx	\$18.6	6.6¢
HRT MD	\$12.9	4.6¢
Surgery	\$15	5.3¢
Total	\$61	17.3¢

# Total THB Annual Cost per Resident



# Error Analysis: Annual Cost per Insured

☒ Minimum cost:	\$ .09	
☒ Best Estimate:	\$ .17	
☒ Maximum cost:	\$2.52	
☒ Domestic Partner Benefits:	\$40.00	(1%)
☒ Full Health Insurance:	\$4,000.00	(2001)

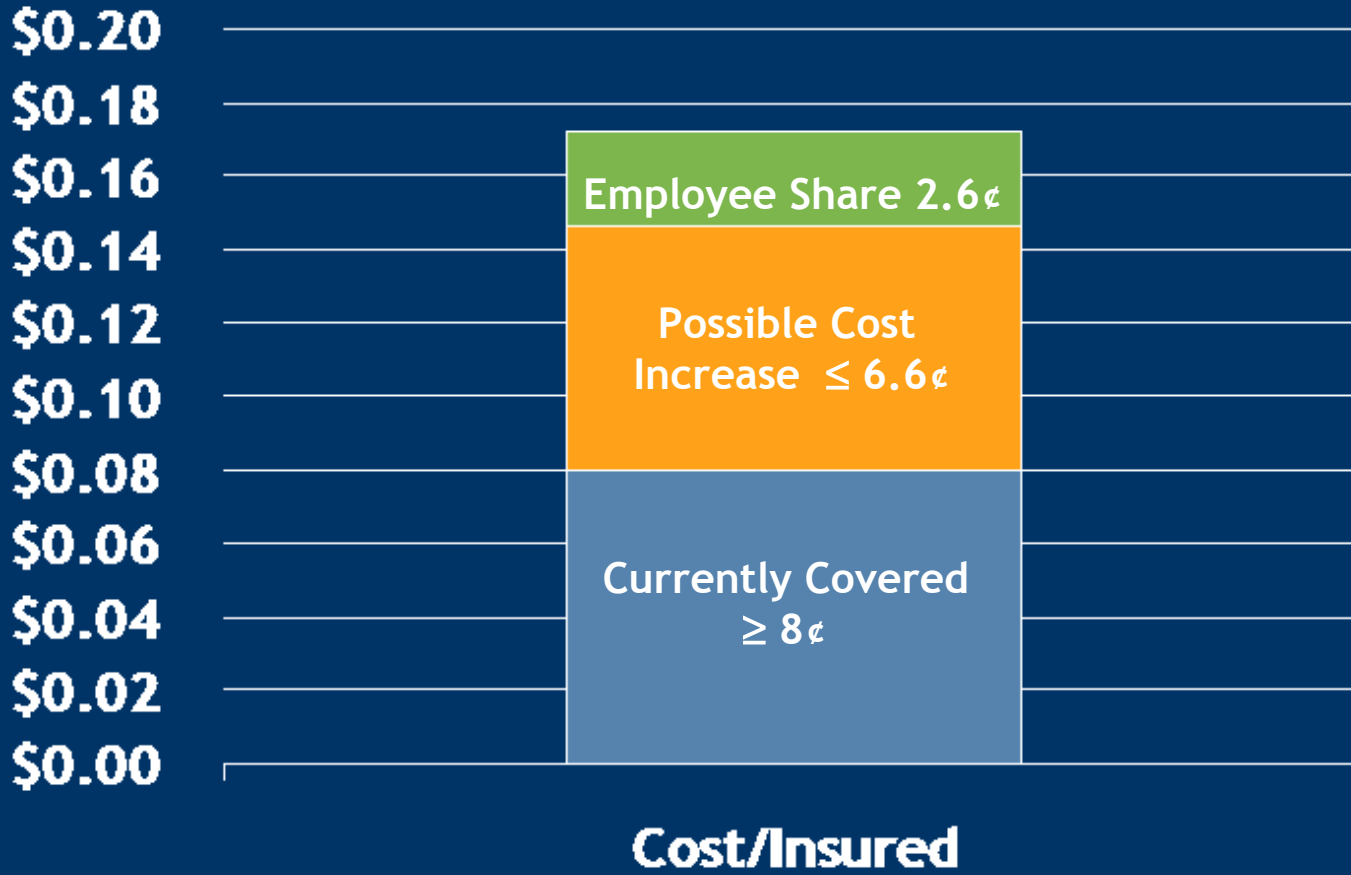
# Cost Issues

- ☒ Cost to employer to cover is less than full cost.
  - Employer pays part, Patient pays part.
  - Most plans currently have partial coverage
  - Maintenance HRT Rx probably already covered
- ☒ % of TS employees with insurance unknown
  - TS unemployment rate may be higher?
  - Those having SRS are self-funded, likely covered?
- ☒ Magnet effect may attract costs
- ☒ Untreated GID may cause other costs, more treatment may save \$
- ☒ Increased coverage may cause increased usage.
- ☒ Covering additional procedures (WPATH 2008) may increase cost.

# Cost Tool (Using 2001 Cost)

Type of Cost	Annual Total Cost / Insured	Employee Share (15%)	Employer Share (85%)	Employer Currently Paying	Adjustments to Cost (magnet, inflation, untreated & long term)	Increased cost to Employer
Symbol for Cost	C	E	$E_r = C - E$	CP	AC	$I = E_r - CP + AC$
Therapy	\$0.007	\$0.0011	\$0.006	Varies	0	$\leq \$0.006$
HRT Rx	\$0.066	\$0.0099	\$0.056	$\geq \$0.045$	0	$\leq \$0.011$
HRT MD	\$0.046	\$0.0069	\$0.039	$\geq \$0.035$	0	$\leq \$0.004$
Surgery	\$0.053	\$0.0080	\$0.045	Varies	0	$\leq 0.045$
Total	\$0.173	\$0.0259	\$0.147	$\geq \$0.080$	0	$\leq \$0.066$

# Annual Cost Increase per Insured





## 2008 Cost per Resident with Inflation

	2008 Cost / Resident	7 Years of Inflation (COLA Rate)	2008 Cost / Resident
Therapy	0.7¢	(1.2%)	0.9¢
HRT Rx	6.6¢	21%	8.0¢
HRT MD	4.6¢	21%	5.5¢
Surgery	5.3¢	77%	9.5¢
<b>Total</b>	<b>17.3¢</b>		<b>23.9¢</b>

## 2008 Est. Cost per Resident for New Procedures

	2008 Price Range	Number of US Residents using	2008 Total Cost (millions)	2008 Cost / Insured
Breast Augmentation	\$5000	184	\$0.9	.3¢
Beard Removal	\$1200 (laser) or \$10,000 to \$15,000 (electrolysis)	736	\$8.8	3.1¢
Facial Feminization Surgery	\$15,000 to \$25,000	200	\$4.2	1.5¢
Total			\$13.9	4.9¢

# Summary

## ☒ Prevalence numbers:

- Run Rate: About 1,166 surgeries/year on US Residents
- Incidence: 1:240,000 have surgery each year
- Inherent Prevalence: 1:3,100 have surgery once in their lifetime

☒ Surgical Cost/Insured: about 5.3¢ (2001), 9.5¢ (2008)

☒ Total Cost/Insured: about 17¢ (2001), 24¢ (2008)

☒ Max cost increase/Insured: about 6.6¢ (2001), 10¢ (2008), 15¢ (if all new procedures added.)

# Q & A