

Supplemental

Gender Identity “Other” or Not Disclosed or Left Blank With Sex Assigned at Birth Provided (n=256)

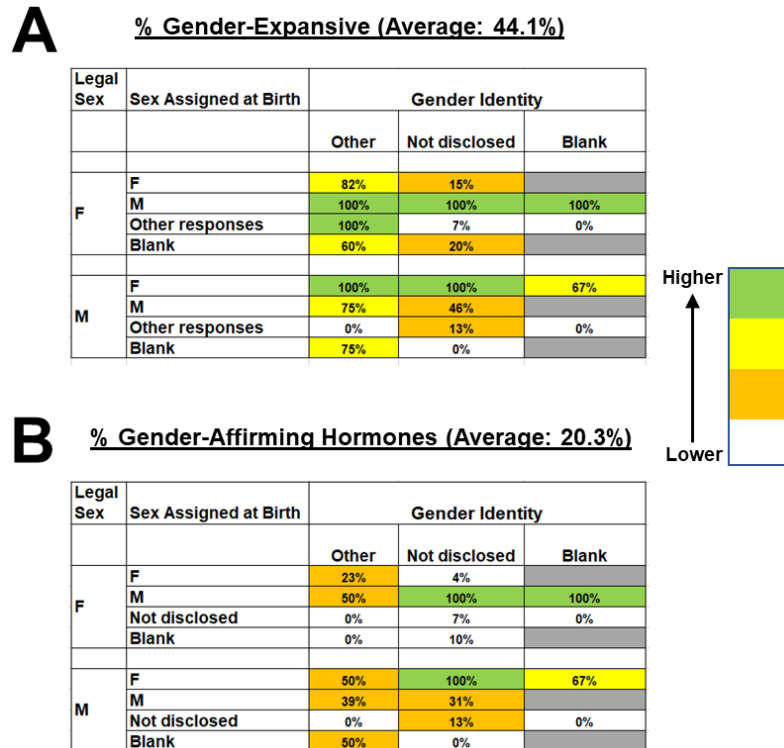


Figure S1. Percent of patients who identified as gender-expansive (verified by chart review) and who were taking gender-affirming hormones from those who selected “Other” or “Choose not to disclose” for Gender Identity or left Gender Identity blank while

providing a response for Sex Assigned at Birth (256 unique patients). (A) Percentage of patients in each category that were determined to be gender-expansive by chart review (average of 44.1%). (B) Percentage of patients in each category that were determined to be actively using gender-affirming hormones (average of 20.3%). The color coding indicates frequency of gender-expansive identity or gender-affirming hormones (see index on right side of figure). Abbreviations: Not disclosed, “Choose not to disclose”; Other responses, includes "Not recorded on birth certificate", "Uncertain", or "Unknown" for Sex Assigned at Birth; M, “Male”; F, “Female”; TM, “Transgender male”; TF, “Transgender female”; NB, “Nonbinary”.

% Gender-Expansive

Legal Sex	Sex Assigned at Birth	Gender Identity							
		F	M	TF	TM	NB	Other	Not disclosed	Blank
F	F		98%	100%	100%	100%	82%	15%	
	M	95%	50%	100%	100%	100%	100%	100%	75%
	Unknown	0%						0%	
	Not recorded	0%							
	Uncertain	50%							
	Not disclosed	33%	100%	80%	100%	100%	100%	7%	
	Blank		100%	100%	100%	100%	60%	20%	
M	F	67%	98%		100%	100%	100%	100%	67%
	M	100%		100%	100%	99%	75%	46%	
	Unknown	100%	0%						0%
	Not recorded		0%		0%			0%	
	Uncertain			100%					
	Not disclosed	100%	67%	100%	100%	100%	0%	14%	0%
	Blank	100%		100%	100%	100%	75%	0%	
U	F	0%				100%			
	M		0%						
	Blank			100%		100%			0%

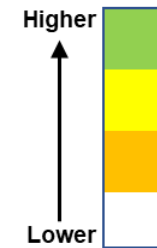


Figure S2. Percent gender-expansive for all the gender/sex combinations in the study (123,441 total unique patients). This combines data from Figures 2, 3, and 4 of the main manuscript. "Not recorded" indicates "Not recorded on birth certificate". "Not disclosed" indicates "Choose not to disclose". "Blank" indicates that the patient did not select an option. Abbreviations: M, male; F, female; TM, transgender male; TF, transgender female; NB, nonbinary. The color coding indicates frequency of gender-expansive identity determined from chart review (see index on right side of figure).

% Gender-Affirming Therapy

Legal Sex	Sex Assigned at Birth	Gender Identity							
		F	M	TF	TM	NB	Other	Not disclosed	Blank
F	F		85%	50%	88%	25%	23%	4%	
	M	93%	50%	95%	100%	100%	50%	100%	100%
	Unknown	0%						0%	
	Not recorded	0%							
	Uncertain	50%							
	Not disclosed	33%	100%	100%	80%	44%	0%	7%	
	Blank		43%	60%	64%	2%	0%	10%	
M	F	67%	98%		99%	100%	50%	100%	67%
	M	90%		91%	67%	35%	39%	31%	
	Unknown	100%	0%						0%
	Not recorded		0%		0%			0%	
	Uncertain			0%					
	Not disclosed	100%	67%	100%	100%	50%	0%	14%	0%
	Blank	65%		56%	100%	0%	50%	0%	
U	F	0%				67%			
	M		0%						
	Blank			100%		0%			0%

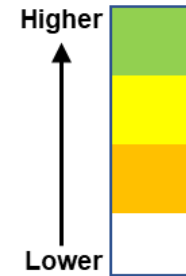


Figure S3. Percent gender-affirming therapy for all the gender/sex combinations in the study (123,441 total unique patients). This combines data from Figures 2, 3, and 4 of the main manuscript. "Not recorded" indicates "Not recorded on birth certificate". "Not disclosed" indicates "Choose not to disclose". "Blank" indicates that the patient did not select an option. Abbreviations: M, male; F, female; TM, transgender male; TF, transgender female; NB, nonbinary. The color coding indicates frequency of gender-expansive identity determined from chart review (see index on right side of figure).

Legal Sex	Sex Assigned at Birth	Gender Identity							
		Female	Male	Transgender Female / Male-to-Female	Transgender Male / Female-to-Male	Non-binary	Other	Choose not to disclose	Blank
F	Female	Cisgender female (n=26,000) ¹	Transgender male without change in legal sex (n=188) ¹	Transgender female with change in legal sex but with error in sex assigned at birth (n=2) ²	Transgender male without change in legal sex (n=408) ¹	Non-binary without change in legal sex (n=389) ¹	Mix of cisgender and gender-expansive (71.9%) (n=57)	Mix of cisgender and gender-expansive (15.2%) (n=46)	Cisgender female (presumed) (n=795) ¹
	Male	Transgender female with change in legal sex (n=81)	Cisgender female and cisgender male, each with error in SOGI fields (n=2) ²	Transgender female with change in legal sex (n=55)	Transgender female with change in legal sex but incorrect selection of gender identity (n=1)	Non-binary with change in legal sex (n=4) ²	Transgender female with change in legal sex (n=2)	Transgender female with change in legal sex (n=1)	Mix of cisgender female and transgender female (75%) with change in legal sex (n=4)
	Unknown	Cisgender female (n=1)	Pattern not seen	Pattern not seen	Pattern not seen	Pattern not seen	Pattern not seen	Cisgender female (n=1)	Pattern not seen
	Not recorded on birth certificate	Cisgender female (n=1)	Pattern not seen	Pattern not seen	Pattern not seen	Pattern not seen	Pattern not seen	Pattern not seen	Pattern not seen
	Uncertain	Cisgender female (50%) and transgender female (50%) (n=2)	Pattern not seen	Pattern not seen	Pattern not seen	Pattern not seen	Pattern not seen	Pattern not seen	Pattern not seen
	Choose not to disclose	Mix of cisgender and gender-expansive (33.3%) (n=21)	Transgender male without change in legal sex (n=4)	Transgender female with change in legal sex (n=5)	Transgender male without change in legal sex (n=5)	Non-binary, one with change in legal sex (n=9)	Gender-expansive (n=1)	Mix of cisgender and gender-expansive (7.1%) (n=28)	Cisgender female (n=3)
	Blank	Cisgender female (presumed) (n=2,301) ¹	Transgender male without change in legal sex (n=23)	Transgender female with change in legal sex (n=5)	Transgender male with or without change in legal sex (n=25)	Non-binary (n=48)	Mix of cisgender and gender-expansive (60%) (n=5)	Mix of cisgender and gender-expansive (10%) (n=10)	Cisgender female (presumed) (n=39,799) ¹

50% or more gender-expansive
 5-49% gender-expansive
 < 5% gender-expansive (including those likely close to 100% cisgender)

Footnotes (also applies to Supplemental Figure 3B):

¹ Categories that were randomly sampled for chart review.

² Uncommon categories that appear to be due to either selection error or confusion with SOGI terminology

Figure S4A. Explanations for the patterns derived from chart review about the gender/sex combinations in the study. This figure includes all combinations in which Legal Sex was "Female" (70,332 unique patients). The color coding indicates 50% or more gender-expansive (green), 5-49% gender-expansive (yellow), and < 5% gender-expansive (orange). The green and yellow categories were 100% chart reviewed. The largest orange categories are predicted as > 95% cisgender.

Legal Sex	Sex Assigned at Birth	Gender Identity							
		Female	Male	Transgender Female / Male-to-Female	Transgender Male / Female-to-Male	Non-binary	Other	Choose not to disclose	Blank
M	Female	Cisgender (33.3%) or transgender (66.7%) (n=3) ²	Transgender male with change in legal sex (n=57)	Pattern not seen	Transgender male with change in legal sex (n=65)	Non-binary (mostly transmasculine) with change in legal sex (n=3)	Gender-expansive with change in legal sex (n=2)	Transgender female with change in legal sex (n=1)	Cisgender male (33.3%) and transgender male (66.7%) with change in legal sex (n=3)
	Male	Transgender female without change in legal sex (n=163) ¹	Cisgender male (presumed) (n=14,198) ¹	Transgender female without change in legal sex (n=269) ¹	Transgender female or transgender male (n=6) ²	Non-binary (mostly transfeminine) without change in legal sex (n=84) ¹	Mix of cisgender and gender-expansive (64.3%) (n=28)	Mix of cisgender and gender-expansive (42.3%) (n=26)	Cisgender male (presumed) (n=500) ¹
	Unknown	Transgender female without change in legal sex (n=1)	Cisgender male, possible confusion related to sex assigned at birth (n=2)	Pattern not seen	Pattern not seen	Pattern not seen	Pattern not seen	Pattern not seen	Cisgender male (n=1)
	Not recorded on birth certificate	Pattern not seen	Cisgender male, possible confusion related to sex assigned at birth (n=42)	Pattern not seen	Cisgender male (selected incorrect gender identity) (n=1) ²	Pattern not seen	Pattern not seen	Cisgender male (n=1)	Pattern not seen
	Uncertain	Pattern not seen	Pattern not seen	Transgender female without change in legal sex (n=1)	Pattern not seen	Pattern not seen	Pattern not seen	Pattern not seen	Pattern not seen
	Choose not to disclose	Transgender female without change in legal sex (n=5)	Mix of cisgender and gender-expansive; majority (62.5%) gender-expansive with change in legal sex (n=24)	Transgender female without change in legal sex (n=3)	Transgender male with change in legal sex (n=5)	Non-binary (transmasculine) with change in legal sex (n=2)	Cisgender male (n=1)	Mix of cisgender and gender-expansive (13.6%) (n=22)	Cisgender male (n=4)
	Blank	Transgender female without change in legal sex (n=17)	Cisgender male (presumed) (n=1,330) ¹	Transgender female without change in legal sex (n=18)	Transgender male with change in legal sex (n=3)	Non-binary (n=10)	Mix of cisgender and gender-expansive (66.7%) (n=4)	Cisgender male (n=5)	Cisgender male (presumed) (n=36,220) ¹
U	Female	Cisgender female (n=1)	Pattern not seen	Pattern not seen	Pattern not seen	Non-binary (n=3)	Pattern not seen	Pattern not seen	Pattern not seen
	Male	Pattern not seen	Cisgender male (n=2)	Pattern not seen	Pattern not seen	Pattern not seen	Pattern not seen	Pattern not seen	Pattern not seen
	Blank	Pattern not seen	Pattern not seen	Transgender female (n=1)	Pattern not seen	Non-binary (n=1)	Pattern not seen	Pattern not seen	Sex unknown (e.g., outreach lab specimen without sex provided) (n=9)

Figure S4B. This figure includes all combinations in which Legal Sex was "Male" (53,092 unique patients) or "Unknown" (17 unique patients). Four of the possibilities for Sex Assigned at Birth were not seen for any patients with Legal Sex of "Unknown"; thus, those rows are not shown as they are for Legal Sex of "Female" or "Male". The green and yellow categories were 100% chart reviewed. The largest orange categories are predicted as > 95% cisgender.

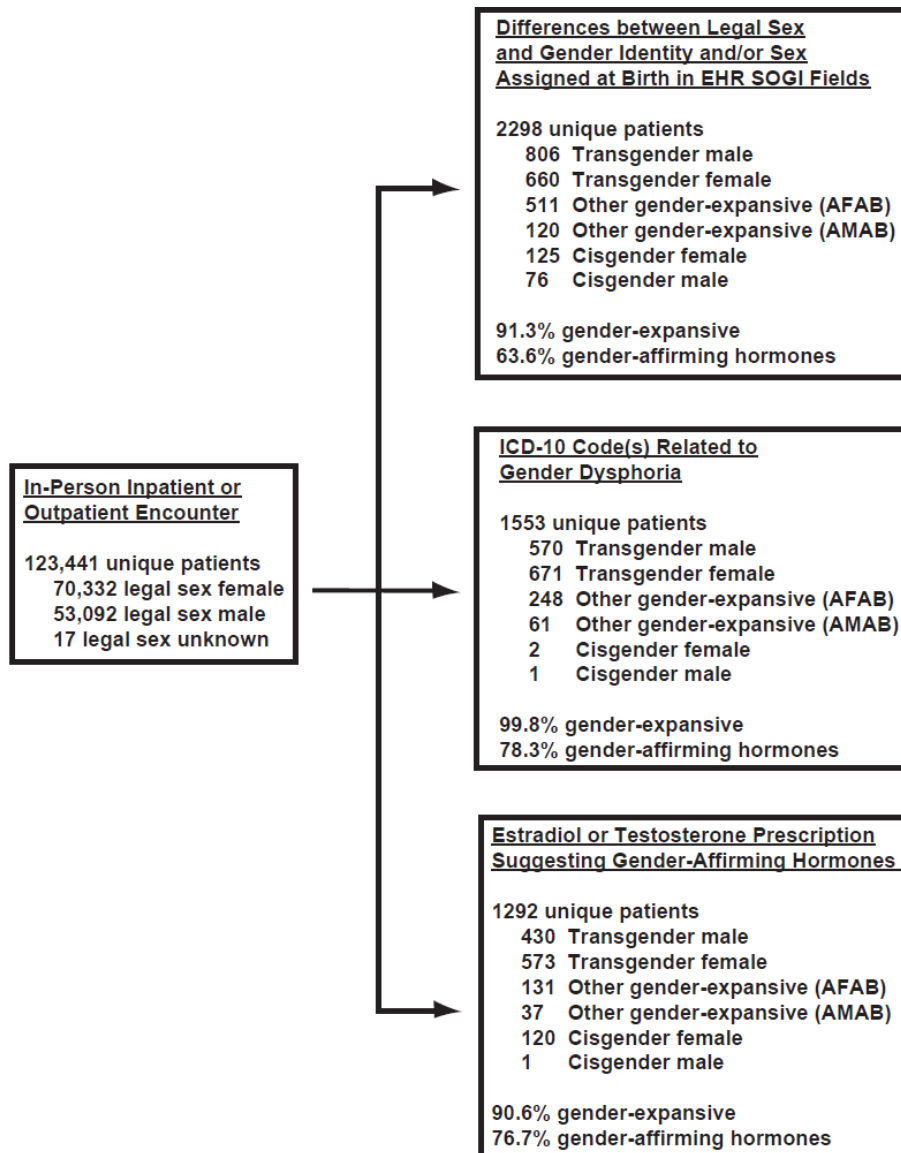
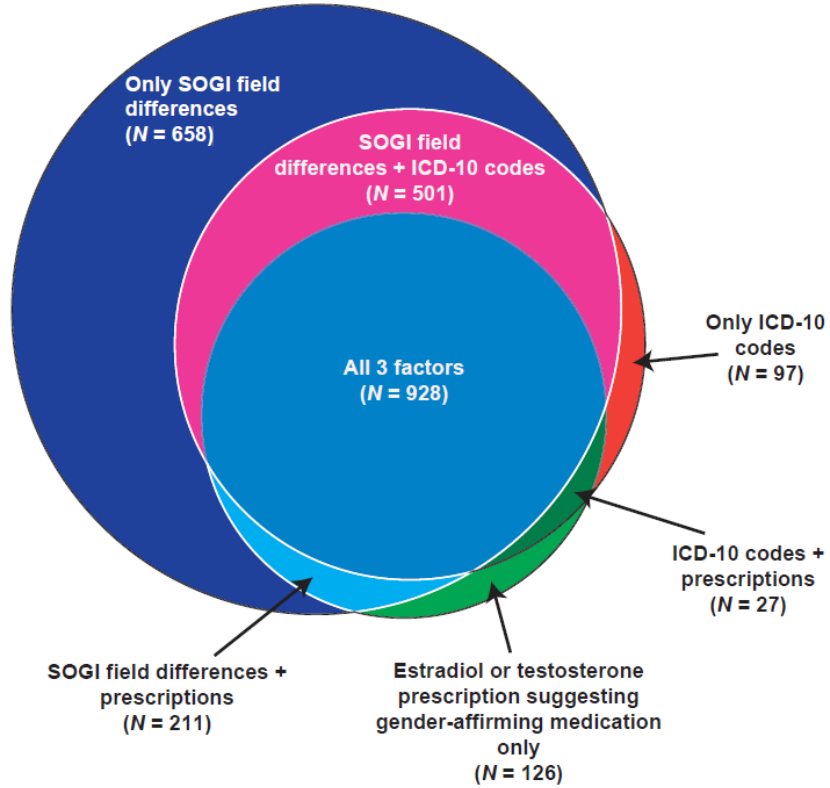


Figure S5. Diagram showing breakdown of patients within search categories



Factors Present	N	% of Total
Only SOGI field differences	658	25.8%
Only ICD-10 codes	97	3.8%
Only prescriptions	126	4.9%
SOGI field differences + ICD-10 codes	501	19.7%
SOGI field differences + prescriptions	211	8.3%
ICD-10 codes + prescriptions	27	1.1%
All three factors	928	36.4%
Total with 1 or more factor	2548	

Figure S6. Venn diagram of factors studied