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Trans\*female Youth's Access to Health Care in the San Francisco Bay Area and the Social Determinants of Health

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Trans\*female Youth's Access to Health Care in the San Francisco Bay Area  
and the Social Determinants of Health

By

Elizabeth Anne Johns

A thesis submitted in partial satisfaction of the

requirements for the degree of

Master of Science

in

Health and Medical Sciences

in the

Graduate Division

of the

University of California, Berkeley

Committee in charge:

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<b>Table 1: Frequencies of Sociodemographic Characteristics and SDH for Trans*female Youths Ages 16-24 (n=250): SHINE Study, San Francisco Bay Area, CA, 2012-2014</b>					
<b>Category</b>		<b>Total N (%)</b>	<b>Category</b>		<b>Total N (%)</b>
<b>Age (years)</b>			<b>Ever had unstable housing</b>		
16-18	35 (14.0)		No	111 (44.4)	
19-20	51 (20.4)		Yes	139 (55.6)	
21-23	129 (51.6)	<b>County of residence</b>			
24	35 (14.0)	San Francisco county		102 (40.8)	
<b>Race/Ethnicity</b>		Surrounding Bay Area counties		125 (50.0)	
Latina	71 (28.4)	<b>Health insurance status</b>			
White	96 (38.4)	Uninsured		46 (18.4)	
Black	30 (12.0)	Insured		204 (81.6)	
Asian	17 (6.8)	<b>Education completed</b>			
Mixed	30 (12.0)	Some High School or less		51 (20.4)	
Additional	6 (2.4)	High School		84 (33.6)	
<b>Income (monthly)</b>		Some College, AA, or technical school		88 (35.2)	
0-500	131 (52.4)	College/Some or all of grad school		27 (10.8)	
501-1000	54 (21.6)	<b>Currently in school</b>			
1001-1500	20 (8.0)	No		152 (60.8)	
1501-2000	17 (6.8)	Yes		98 (39.2)	
2000+	26 (10.4)	<b>Current living situation</b>			
<b>Gender identity</b>		Independently housed		115 (46.0)	
Female	121 (48.4)	Dependent or student housing		69 (27.6)	
Transfemale/Transwoman	82 (32.8)	Transitional housing, Homeless shelter		51 (20.4)	
Genderqueer/Genderfluid	35 (14.0)	Other		15 (6.0)	
Additional Gender	12 (4.8)				

<b>Table 2 - Chi2 analyses: Problems accessing medical and mental health care vs. Sociodemographic Characteristics &amp; SDH: SHINE Study, San Francisco Bay Area, CA, 2012-2014</b>					
	<b>Problems accessing medical care</b>		<b>Problems accessing mental health care</b>		
	# Yes (%)	Chi2 (p-value)	# Yes (%)	Chi2 (p-value)	Total
<b>Age (years)</b>					
16-18	5 (14.3)	1.60 (0.66)	4 (11.4)	3.67 (0.30)	35
19-20	12 (23.5)		6 (11.8)		51
21-23	27 (20.9)		11 (8.5)		129
24	9 (25.7)		7 (20.0)		35
<b>Race/Ethnicity</b>					
Latina	12 (16.9)	<b>14.92 (0.01)*</b>	3 (4.2)	<b>20.35 (0.00)*</b>	71
White	26 (27.1)		16 (16.7)		96
Black	3 (10.0)		1 (3.3)		30
Asian	1 (5.9)		0 (0.0)		17
Mixed	7 (23.3)		5 (16.7)		30
Additional identity(ies)	4 (66.7)		3 (50.0)		6
<b>Income (monthly)</b>					
0-500	30 (22.9)	3.43 (0.49)	16 (12.2)	1.13 (0.89)	131
501-1000	9 (16.7)		7 (13.0)		54
101-1500	4 (20.0)		2 (10.0)		20
1501-2000	6 (35.3)		1 (5.9)		17
2000+	4 (15.4)		2 (7.7)		26
<b>Gender Identity</b>					
Female	31 (25.6)	6.61 (0.09)	13 (10.7)	0.21 (0.98)	121
Transfemale/ Transwoman	18 (22.0)		10 (12.2)		82
Genderqueer/ Gender fluid	2 (5.7)		4 (11.4)		35
Additional Identity(ies)	2 (16.7)		1 (8.3)		12
<b>Current living situation</b>					

Independently housed	29 (25.2)	5.26 (0.15)	17 (14.8)	<b>15.57</b> <b>(0.00)*</b>	115
Dependent/ student housing	9 (13.0)		1 (1.4)		69
Transitional housing/homeless shelter	10 (19.6)		5 (9.8)		51
Other	5 (33.3)		5 (33.3)		15
<b>Ever had unstable housing</b>					
No	16 (14.4)	<b>5.50</b> <b>(0.02)*</b>	7 (6.3)	<b>4.81</b> <b>(0.03)*</b>	111
Yes	37 (26.6)		21 (15.1)		139
<b>County of residence</b>					
Surrounding Bay Area	25 (20.0)	0.01 (0.91)	16 (12.8)	0.91 (0.34)	125
San Francisco	21 (20.6)		9 (8.8)		102
<b>Health Insurance Status</b>					
Uninsured	10 (20.8)	0.00 (0.94)	3 (6.25)	1.46 (0.23)	48
Insured	43 (21.3)		25 (12.4)		202
<b>Education completed</b>					
Some high school or less	9 (17.6)	3.33 (0.34)	2 (3.9)	6.18 (0.10)	51
High school	14 (16.7)		9 (10.7)		84
Some college, AA, technical school	22 (25.0)		11 (12.5)		88
College, some graduate school, graduate school	8 (29.6)		6 (22.2)		27
<b>Currently in school</b>					
No	33 (21.7)	0.06 (0.81)	17 (11.2)	0.00 (0.99)	152
Yes	20 (20.4)		11 (11.2)		98

<b>Table 3 - Unadjusted odds ratios</b>		
	<b>Problems accessing medical care</b>	<b>Problems accessing mental health care</b>
<b>Age (years)</b>		
16-18	0.63 (0.22, 1.78)	1.38 (0.41, 4.65)
19-20	1.16 (0.54, 2.52)	1.43 (0.50, 4.10)
21-23	-	-
24	1.31 (0.55, 3.12)	2.68 (0.95, 7.54)
<b>Race/Ethnicity</b>		
Latina	0.55 (0.25, 1.18)	<b>0.22 (0.06, 0.79)*</b>
White	-	-
Black	0.30 (0.08, 1.07)	0.17 (0.02, 1.36)
Asian	0.17 (0.02, 1.33)	<0.001 (<0.01, >100.0)
Mixed	0.82 (0.31, 2.14)	1.00 (0.33, 3.00)
Additional Identity(ies)	5.39 (0.93, 31.174)	5.00 (0.93, 27.04)
<b>Income (monthly)</b>		
0-500	-	-
501-1000	0.67 (0.30, 1.53)	1.07 (0.41, 2.77)
101-1500	0.84 (0.26, 2.71)	0.80 (0.17, 3.77)
1501-2000	1.84 (0.63, 5.38)	0.45 (0.06, 3.62)
2000+	0.61 (0.30, 1.92)	0.60 (0.13, 2.78)
<b>Gender Identity</b>		
Female	-	-
Transfemale/ Transwoman	0.82 (0.42, 1.59)	1.38 (0.41, 4.65)
Genderqueer/ Gender fluid	<b>0.18 (0.04, 0.78)*</b>	1.43 (0.50, 4.10)
Additional Identity(ies)	0.58 (0.12, 2.80)	2.68 (0.95, 7.54)
<b>Current living situation</b>		
Independently housed	-	-
Dependent/ student housing	0.45 (0.20, 1.01)	<b>0.09 (0.01, 0.65)*</b>
Transitional housing/shelter	0.72 (0.32, 1.63)	0.63 (0.22, 1.80)
Other	1.48 (0.47, 4.70)	2.88 (0.88, 9.48)
<b>Ever had unstable housing?</b>		
No	-	-
Yes	<b>2.16 (1.12, 4.13)*</b>	<b>2.65 (1.08, 6.45)*</b>
<b>County of residence</b>		



San Francisco	1.04 (0.54, 1.99)	0.66 (0.28, 1.56)
Surrounding Bay Area	-	-
<b>Health Insurance Status</b>		
Uninsured	0.97 (0.45, 2.11)	0.47 (0.14, 1.63)
Insured	-	-
<b>Education completed</b>		
Some high school or less	0.64 (0.27, 1.53)	0.29 (0.06, 1.34)
High school	0.60 (0.28, 1.27)	0.84 (0.33, 2.14)
Some college, AA, or technical school	-	-
College, some or all of graduate school	1.26 (0.49, 3.29)	2.00 (0.66, 6.04)
<b>Currently in school</b>		
No	-	-
Yes	0.93 (0.50, 1.73)	1.00 (0.45, 2.25)

## **ACKNOWLEDGMENTS**

This research would not have been possible without the youth who participated in the Shine Study. We thank you immensely for your help. We are proud of you and are so glad you're you.

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## **EDUCATION**

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- UC, Berkeley – UC, San Francisco Joint Medical Program** 6/2013 – present  
*MS Candidate 2016, MD Candidate 2018*
- UCSF - UCB SOM Program in Medical Education for the Urban Underserved (PRIME-US)** 8/2013 – present  
*Special curricular track for students dedicated to careers serving vulnerable urban populations*
- San Francisco State University, San Francisco, CA** 8/2009 - 12/2011  
*Post-Baccalaureate Pre-Medical Program*
- Hampshire College, Amherst, MA** 9/2004 - 5/2006  
*Bachelors of Arts in Psychology and Human Sexuality*
- American University, Honors College, Washington, DC** 8/2001 - 5/2003  
*Psychology Major*

## **WORK EXPERIENCE**

---

- Social Work Associate** 4/2010 - 6/2013  
*Women's Options Center at San Francisco General Hospital, San Francisco, CA*
- Performed pregnancy options counseling utilizing an open-ended, supportive counseling framework
  - Performed birth control counseling
  - Explained the surgical and medication abortion procedure to patients
  - Assisted the physician and nurses in the operating room by providing support to the patient, monitoring patient vitals, and passing instruments
- Medical Section/Collective Member** 1/2008 - 5/2012  
*Berkeley Free Clinic, Berkeley, CA*
- Diagnosed and treated basic acute infections according to protocols
  - Performed STI counseling and basic health maintenance education
  - Technical skills: venipuncture, IM injections, place/read PPDs, taking vitals
  - Facilitated on-shift and weekend trainings for new medical volunteers
  - Coordinated staffing and maintenance of services for Women's Shift

- Medical Assistant/Administration** 2/2008 - 2/2010  
*1Life Healthcare, San Francisco, CA*
- Technical skills: Venipuncture, IM injections, place/read PPDs, performed EKGs, assisted with in-office surgical procedures
  - Trained new administrative staff and phlebotomists
  - Processed billing and claims paperwork, answered multi-line phone system and email queue, communicated Rx information to pharmacies
  - Maintained heavily-utilized database of clinical referrals
- Assistant Field Director** 12/2008 - 1/2009  
*WorldTeach Rwanda, Kigali, Rwanda*
- Created and co-facilitated a 3.5 week cross-cultural teacher training for 18 volunteer teachers that included classroom management skills, curriculum development, language training (French), cultural humility workshops, and site visits to genocide memorials
- Tech/Na! Project Administrator** 6/2007 - 12/2007  
*Ministry of Education, WorldTeach Namibia, Windhoek, Namibia*
- Maintained and enhanced relationships with project partners
  - Organized and co-facilitated bi-monthly Steering Committee meetings
  - Wrote and edited grant proposals and other official documents
- Teacher, Grades 5-7** 1/2007 - 6/2007  
*St. Joseph's Primary School, WorldTeach Namibia, Rehoboth, Namibia*
- Developed and implemented 6th grade math curriculum
  - Developed and implemented 5th-7th grade computer science curriculum
- Residential Assistant** 8/2005 - 5/2006  
*Office of Residential Life, Hampshire College, Amherst, MA*
- Created and facilitated educational and recreational programs
  - Provided psychosocial support for 42 residential students
- Assistant Librarian** 6/2005 - 8/2005  
*Center for Sex and Culture, Sexuality Research Library, San Francisco, CA*
- Co-developed a 32-item cataloging system for books and journals
  - Cataloged over 1,300 books and 300 journals
- Volunteer Coordinator/Tobacco Outreach Program Co-coordinator** 9/2003 - 8/2004  
*Sexual Minority Youth Assistance League/AmeriCorps, Washington, DC*
- Organized and implemented three 20-hour volunteer training programs
  - Managed tobacco education outreach team of LGBT youth
  - Facilitated 15 LGBT youth sensitivity trainings for youth service providers
  - Managed item acquisition for silent auction fundraiser (grossing \$5,000)

## RESEARCH EXPERIENCE

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**Provider Stakeholder group member:** 2/2013 - present

**Contraceptive decision support tool**

*PI: C. Dehlendorf, MD, Associate Professor, UCSF Dept. of Family & Community Medicine, San Francisco, CA*

- Provide clinical experience in contraceptive counseling to enhance the usability and relevance of an iPad-based contraceptive decision making application to be used in community clinics

**Graduate Researcher** 1/2014 - present

*PI: Erin Wilson, DrPH, Associate Professor, UCSF Dept. of Epidemiology, Dept. of Public Health, San Francisco, CA*

- Analyzing access to health care, health care satisfaction and demographic variables in longitudinal study of the resilience and risk factors for HIV of transgender female adolescents in the SF Bay Area

**Research Assistant** 10/2012-5/2013

*PI: C. Dehlendorf, MD, Associate Professor, UCSF Dept. of Family & Community Medicine, San Francisco, CA*

- Evaluated transcribed contraceptive counseling visits from community clinics in the San Francisco Bay Area from 2008-2011 to identify how provider and patient involvement in each visit was correlated with positive contraceptive use outcomes

**Research Assistant for Study: “Self-regulation and Mindfulness”** 10/2002 - 5/2003

*Psychology Department American University, Washington, DC*

- Recruited and tracked weekly progress of 10 study participants; compiled participant data

## COMMUNITY ENGAGEMENT AND LEADERSHIP

---

JMP Curriculum Committee, JMP Student Representative 9/2015 -2/2016

Hazelden Betty Ford Foundation’s Summer Institute for Medical Students 6/2015

Medical Students for Choice, JMP Student Leader 6/2014 - 6/2015

LGBTQI Suitcase Clinic, Lead Coordinator 3/2014 - 3/2015

The Healer’s Art Course, JMP Student Leader 9/2014 - 10/2014

JMP Alumni Committee, JMP Student Representative 10/2013 - 10/2014

Monitoring & Evaluation, International Training & Education Center on HIV/AIDS in Namibia  
10/2006 - 1/2007

Needle Exchange Services Provider, PreventionWorks! Needle Exchange, Washington, DC  
6/2004 - 8/2004

## **PRESENTATIONS & POSTERS**

---

**“Demographic variables affecting gender-related health care access and satisfaction for trans\*female adolescents in the SF Bay Area”** 4/2015

- Oral presentation: National Transgender Health Summit

**“Access to and satisfaction with healthcare for trans\*female adolescents in the SF Bay Area”** 1/2015

- Poster presentation: Pathways Explore Research Symposium, UCSF School of Medicine

## **GRANTS, HONORS AND AWARDS**

---

Helen Schoeneman Scholarship	Summer 2015
UCSF PROF-PATH Research Fellowship (\$3,500), San Francisco, CA	Summer 2014
PRIME-US Grant for LGBTQI Suitcase Clinic (\$800), Berkeley, CA	Spring 2014
PRIME-US Grant for Suitcase Clinic (\$2,000), Berkeley, CA	Spring 2014
University Fellowship (\$12,500), UC Berkeley, Berkeley, CA	2013 – 2014
HIV/AIDS Gender-Based Prevention Education Certification Hampshire College, Amherst, MA	1/2006
Reproductive Rights Activist Service Corps grant (\$3,300) Hampshire College, Amherst, MA	6/2005
AmeriCorps Education Award (\$4,725), Public Allies DC, Washington, DC	8/2004

## ABSTRACT

**Purpose:** Trans\*female youth are a vulnerable population at risk for a variety of poor health outcomes, partly because of barriers to appropriate medical and mental health care. Given the high stigma and discrimination trans\*female youth face, this study was conducted to examine social determinants of mental and medical healthcare access within this population.

**Methods:** Data are drawn from the Shine Study, which examined HIV risk and resilience among trans\*female youth aged 16 to 24 years in the San Francisco Bay Area. We analyzed data collected from 2012 to 2014 (N=250). We used chi-2 analyses to inform individual logistic regression models to test for associations between social determinants of health factors and problems accessing medical and mental healthcare.

**Results:** Among trans\*female youth, having a history of unstable housing was associated with significantly higher odds of problems accessing both medical care (OR 2.16, 95% CI 1.12, 4.13) and mental healthcare (OR 2.65, 95% CI 1.08, 6.45). Conversely, genderqueer identity, having insurance, living in San Francisco County and identifying as Latina were all positively associated with access to medical and mental health care.

**Conclusions:** Our findings point to the impact of unstable housing on populations most at risk for medical and mental health disparities. Despite numerous health care access options in the San Francisco Bay Area, services and policies to improve housing options may have an important positive impact on access to healthcare and mental health services for trans\*female youth.

# Access to Health Care for Trans\* Adolescents

## Paper 1

### INTRODUCTION

*“Health care professionals need to have a sensitivity.... You can’t have any assumption because there is such a huge range about what it means to be trans.”*

Research participant in Bauer et al., 2009

In the last several years, awareness about the existence, resilience, and health issues of transgender and gender non-conforming people has significantly increased. The number of papers indexed on PubMed in the last decade that include the word “transgender” in the keywords rose exponentially from 23 papers in 2005 to 413 total papers in 2014. Legislation such as a non-discrimination clause in the Affordable Care Act that, as of 2014, prohibits insurers from denying coverage or charging higher interest rates because a person identifies as lesbian, gay, bisexual or transgender has been passed (U.S. Department of Health and Human Services). Mainstream media have pulled transgender people into the spotlight, such as Laverne Cox, an out transgender woman of color known for her role on the Netflix show *Orange is the New Black*. As an outspoken leader in the trans\* rights movement, she was on the cover of *Time Magazine* in June 2014. In early 2015, not only did President Obama become the first president to use the word transgender in his state of the union address, his administration also came out against conversion therapy due to the suicide of trans\* female teen Leelah Alcorn (Steinmetz, 2015). These and many other examples hopefully signal a crucial shift in attention toward a historically invisible, underrepresented, and marginalized community of people.

Although increased visibility and policy changes are steps toward a more just world for trans\* people, transgender identities still remain stigmatized. People whose identity falls within the transgender spectrum experience barriers to accessing health care, poorer health outcomes, discrimination in education, employment (Bradford, Reisner, Honnold, & Xavier, 2013) and housing, and have fewer legal protections than people who do not identify as transgender (Stroumsa, 2014). Because the experience of discrimination due to stigma is related to power dynamics, transgender youth are a population who are particularly vulnerable to stigma, as youth have less power and agency than adults. Similarly, medical and mental health care providers, as well as the institutions within which they work, hold significant power in treatment decisions via deciding who will have access to medicines and other surgical and non-surgical therapies (like a mental health letter of recommendation for hormone and surgical therapies), and they bring this power to their interactions with patients. For transgender youth and adults, many of whom seek health care for hormones and other gender-affirming therapies to align their physical appearance with their internal gender identity, fear of this power dynamic may place them at increased risk of experiencing discrimination and health disparities



in comparison to their cisgender peers (Clark et al., 2014; Grossman & D'Augelli, 2006).

Numerous state, federal, and non-profit groups are now publicly recognizing the health disparities that transgender people are facing, including higher rates of suicide, HIV and other STIs, and drug and alcohol abuse. The Institute of Medicine, in their 2011 report on the health of lesbian, gay, bisexual, and transgender (LGBT) people, stated: "All aspects of the evidence base for transgender-specific health care need to be expanded." (IOM, 2011). In the LGBT health section of Healthy People 2020, the US Department of Health and Human Services (HHS) states that gender-related health care for people who identify as transgender must be recognized as medically necessary (USD HHS). Healthy People 2020 also acknowledges that the "exploration of sexual/gender identity among youth" in research would need to continue over the next decade due to the dearth of information on this population.

Transgender adolescents, as a particularly underrepresented population of youth, will be the focus of this literature review. We will first discuss the ways in which transgender adolescents and emerging adults experience the health care system, including what is known about trans\* youth preferences in how medical and mental health care services are delivered, as well as barriers to accessing these services. We will then review research by stigma experts Link and Phelan, as well as other transgender-specific stigma research. This will provide the theoretical framework for understanding the ways in which stigma perpetuates health care barriers and poor health outcomes. Third, although there is a paucity of research about transgender youth, there is a slightly more robust literature about transgender adults that will also be reviewed, with a focus on some of the cumulative, longer-term effects of poor access to medical and mental health care as well as the socioeconomic hurdles that transgender people must overcome. Additionally, research with trans\* adult populations general have larger samples than those with trans youth for a number of reasons. These include difficulty in obtaining parental consent for trans\* minor participation, difficulty in obtaining research approval for minor assent, and the challenges to sampling trans\* youth due to their disconnectedness from health care systems in general (Osius & Rosenthal, 2009).

Fourth, we will present findings regarding the ways that health care providers and other key people in their lives, namely parents and guardians, can help facilitate a trans\* youths' trajectory toward health. While there is no known literature that evaluates the resilience of trans\* youth who have positive health care experiences, there are a small number of studies that discuss the benefits of providing gender-affirming therapies to trans\* people and include suggestions for how to better facilitate access to that care for trans\* youth (Olson, Forbes, & Belzer, 2011; IOM, 2011; Mayer, Garofalo & Makadon, 2014; Coleman et al., 2012). Finally, recommendations will be provided for ways to remove the barriers to health care access that trans\* youth face and how to begin to create a trans\* friendly and affirming health care experience for all transgender youth.

## TERMINOLOGY

Transgender (or, trans\*), gender nonconforming, and/or gender variant people are those who transcend the culturally and medically defined male/female gender binary. The word *transgender* refers to a person whose gender identity or gender expression differs from the sex assigned to them at birth. *Gender identity* is one's internal sense of gender. *Gender expression* is a person's outward expression of their gender identity (IOM, 2013). Gender identity is a separate concept from *sexual orientation*, which refers to the physical or emotional desires or behaviors an individual has toward other individuals (Garofalo, Deleon, Osmer, Doll, & Harper, 2006). The words queer, lesbian, bisexual, gay, heterosexual, or asexual, for example, are used to refer to one's sexual orientation. The word sex is typically used to refer to the chromosomes one has (XX for female sex and XY for male sex) and the resulting genitals, internal reproductive organs, and phenotypic characteristics such as body hair patterns. Throughout this paper, the term trans with an asterisk (trans\*) will be used to encompass any person whose gender experience is non-cisgender and, potentially, non-binary. The \* was adapted from computer lingo, where ending a search term with an \* signifies to the computer to search for the initial term, plus any characters thereafter. This means that trans\* includes identities such as transgender, transsexual, transvestite, genderqueer, gender nonconforming, genderfuck, nongender, agender, genderless, twospirit, transwoman, transman, male-to-female (MTF), female-to-male (FTM), as well as female (for people assigned a male sex at birth) and male (for people assigned a female sex at birth) and many more.

So as to not only create terminology for that which is different, the words *cisgender* or *non-transgender* are often used to describe someone whose gender identity continues to be that which is typically socially expected of their assigned sex. *Cisnormativity* is the societal expectation that a person is cisgender. The theory of cisnormativity holds that an individual's gender identity will be the same from the moment they are born as it will be throughout the rest of their lives. For example, it is an assumption that a person assigned a male sex at birth will grow up to be a man and a person assigned a female sex will grow up to be a woman. Based on this assumption, any different configuration of gender identities a person may have over the course of their lifetime is considered abnormal compared to the "normal state of affairs" in which gender and sex remain static (Bauer et al., 2009).

Unfortunately, a standardized definition for adolescence does not exist in the literature, despite its importance as a distinct developmental time period between childhood and adulthood (Osius & Rosenthal, 2009). Thus, a variety of terms will be used throughout this paper to represent the specific age groups of young people in the literature being cited. The term *adolescent* will be used to describe individuals between the ages of 11-21, and encompasses early adolescence (ages 11-14), middle adolescence (ages 15-17), late adolescence (ages 18-21) (Hagan, Shaw, Duncan, eds., 2008). The term *youth*, as defined by the United Nations, encompasses the ages of 15-24 (Edidin, Ganim, Hunter, & Karnik, 2012). Additionally, some researchers theorize that the ages of 18-25 are

a distinct developmental time period and have called it called *emerging adulthood* (Arnett, 2000). This terminology will be used as well.

## **DATA COLLECTION**

Gender identity is a separate concept from sexual orientation, though the two are often conflated in the research literature. Trans\* people are technically included within the LGBT umbrella. In reality, however, the vast majority of LGBT research has focused on issues related to sexual orientation and *not* gender identity. This means trans\*-specific needs and issues have been largely overlooked (Kitts, 2010; Roberts & Fantz, 2014). There has been a significant increase in the literature regarding all populations within the LGBT umbrella in the last several decades. However, there is a disparity between the quantity of research focused on sexual orientation relative to research focused on gender identity. In 2014 there were over seven times more articles indexed on PubMed about sexual orientation than there were about gender identity, over three times more articles about gay people than transgender people, and almost twice as many articles about lesbians than transgender people<sup>1</sup>. Furthermore, trans\* youth, especially those under 18 years old, have received even less study than trans\* adults. Effectively, research about LGBT populations is, and has historically been, research about lesbian and gay adults, focusing on issues related to sexual orientation.

For research that has focused specifically on trans\* people, several methodological challenges exist. First, because trans\* identities can be so varied from one individual to another and also within the same individual over time, capturing a trans\* identity with a survey question has been a challenging task. This task has more recently been facilitated by employing a two-step question approach of asking first about current gender identity and then asking about sex assigned at birth (Deutsch, Keatley, Sevelius, & Shade, 2014). Also, partially due to small sample sizes often obtained in research with trans\* people, researchers often lump a multitude of distinct identities within the trans\* spectrum into just a few larger groups to achieve statistical significance (Kuper, Nussbaum & Mustanski, 2012). Not only does this cause trans\* people to be represented as a more homogenous group than they are, it may promote researchers to miss the resilience and the risk factors within distinct groups of individuals (Melendez et al., 2006).

In 2011, the CDC implemented a two-question system of gender identity collection (asking first about the sex assigned at birth, then about current gender identity) in its Enhanced HIV/AIDS Reporting System (EHARS), a system that gathers reports of new cases of HIV and AIDS. Researchers found that when this two-question system was put in place, there was a 64% increase in the number of transgender people being identified (IOM, 2013), evidence of the potential impact of incorporating questions about gender identity into national surveillance data collection surveys. Given developmental differences between youth and adults, younger people may respond differently to survey questions that have

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<sup>1</sup> As of March 2015, there were 4,090 articles indexed on PubMed about sexual orientation, 573 about gender identity, 1348 about gay issues, and 619 about lesbian issues.

only been tested with adults. Age-appropriate language and questions tested specifically with a younger population are necessary steps to take to ensure youth are responding appropriately to survey questions. Thus, incorporation of gender identity questions into nationwide health surveys will also need to be specifically adapted for a youth population (Conron, Landers, Reisner, & Sell, 2014)

Next, the use of convenience sampling is widely used to garner larger sample sizes. Convenience sampling is often used within this population because trans\* people are typically considered members of a hidden population (Melendez, Bonem, & Sember, 2006), one for which it is perceived to be challenging for researchers to obtain access to large numbers. This sampling methodology often results in oversampling of select populations of trans\* people, like those who live in urban settings (Bauer & Scheim, 2013) or who access care in specialized settings like at a gender-specific or HIV clinic. As a result of this methodology, small sample sizes in both qualitative and quantitative research are the rule rather than the exception within studies of trans\* people.

The most problematic methodological challenge, however, is the lack of any population-level data. A recent estimate of the population of people who identify as trans\* suggested a prevalence of 0.3% among adults, or around 700,000 people in the United States (Gates, 2011). However, because no national data set collects information on trans\* gender identities of either youth or adults (Olson et al., 2011; Shields et al., 2013), this is an estimate extrapolated from smaller studies that were likely subject to the above methodological challenges. The inability to accurately estimate the true population size of trans\* and gender nonconforming people limits our ability to define, assess, and then mount an effective response to the public health crisis within these communities. Governments, non-profits, physicians, and other caring professions need data in order to drive an appropriate response. As a research participant in Bauer et al. stated, *"The perception that trans people are rare reinforces an erasure of trans communities and the continuing treatment of trans people as isolated cases... [This] allows for continued assumptions that systems do not need to be adapted to be trans-appropriate and that trans people can be dealt with on an individual basis."* (2009).

Movement toward more inclusive surveillance data for gender identity is occurring, though progress is still far from as prevalent as the collection of other identities such as race, ethnicity, and sex, for example. Very shortly after the Institute of Medicine released its report on LGBT Health highlighting the need for trans\*-specific research (IOM, 2011), US Secretary of State, Kathleen Sebelius, announced that the HHS would begin including both sexual orientation and gender identity questions in the National Health Interview Survey (NHIS). The HHS writes in its 2011 Health Objectives that it will "continue to work toward increasing the number of federally-funded health and demographic surveys that collect and report sexual orientation and gender identity data, consistent with the President's support for evidence-based policies." As a result, as of January 2013, the NHIS now includes questions about sexual orientation, though not gender identity. As of December, 2014, questions about both gender identity and sexual

orientation were implemented as an optional module for States on the CDC's 2014 Behavioral Risk Factor Surveillance System. Technical and financial assistance was also provided to the thirty-one states that have either adopted the model or are using a variation on the questions (HHS LGBT Issues Coordinating Committee, 2014).

## **STIGMA AND DISCRIMINATION**

Stigma researchers describe stigma as that which exists when elements of labeling, stereotyping, separation, status loss, and discrimination occur together in a power situation that allows them. The process of identity stigmatizing begins with labeling others based on ways in which they are different from the observer. These labels are then used to make stereotypic associations based on perceived differences. Stereotypes, especially negative ones, allow for discrimination and devaluation of those who are perceived to belong to that particular group. They also allow for those individuals not included in the stereotype to exercise power over those who are being labelled, allowing those in power to maintain multifactorial dominance over the lives of the negatively stereotyped group (Link & Phelan, 2001; Cruz, 2014).

While the process of stigma can be applied to multiple stigmatized identities, it may also be instructive to consider a model that is specifically targeted toward sexual minority (LGB) individuals, one that may be relevant to trans\* populations as well. The *Minority Stress Model* is one such model (IOM, 2011). It suggests that "the stress associated with stigma, prejudice, and discrimination will increase rates of psychological distress" in the sexual minority and likely also trans\* populations (Bockting, Miner, Swinburne, Hamilton, & Coleman, 2013). Minority stress is described as "socially based and chronic, stemming from relatively stable social structures and norms beyond the individual," (Bockting et al., 2013). The female/male gender binary, for example, is a relatively stable social structure.

Societal norms of gender as a rigid, binary concept hold that gender is something that is an innate aspect of a person, set at birth and not subject to change (Steensma, Kreukels, de Vries, & Cohen-Kettenis, 2013). Bockting et al. supports this, stating that "transgender people face systematic oppression and devaluation as a result of social stigma attached to their gender nonconformity" (2013). This social stigma occurs in the form of transphobia, which is "the feeling of unease or even revulsion towards those who express non-normative expressions of gender identity" (Lombardi, 2009). Transphobia has been described as "the experience of discrimination based on having a gender identity or expression that varies from the sex assigned at birth" (Snelgrove, Jasudavicius, Rowe, Head, & Bauer, 2012).

In further considering the minority stress model, the experience of minority stress can be caused by external sources enacting stigma toward a person who is trans\* or can be a product of internal processes. In 2005, authors Norton and Herek sampled 2,281 heterosexual adults living in the US regarding their feelings about transgender people in an attempt to quantitatively evaluate the *external sources* (i.e. those external to the stigmatized individual) that were stigmatizing

toward gender nonconforming people (i.e. the sources of transphobia). Their results clearly showed that these heterosexual, likely non-transgender respondents, on average had significantly unfavorable attitudes toward transgender people (Norton & Herek, 2012). *Internal processes* of self-enacting stigma may include a person perceiving rejection (in situations where rejection would not be salient for individuals who don't hold that stigmatized identity), having expectations of being stereotyped or discriminated against (because of previous personal experiences of discrimination or hearing about discrimination toward a person with a similar identity), or concealing their gender identity for fear of harm.

Because stigma is experienced by those with less power, trans\* youth are particularly vulnerable to its effects. Adolescence is also the period of time in which youth experience self-consciousness and are motivated by social comparison much more so than they have ever been before (Haller, Kadosh, Scerif, & Lau, 2015), placing them at higher risk of experiencing the burden of stigma more so than other developmental time periods. Several studies evaluating the experience of coming out as trans\* as an adult or in adolescence have shown that the younger people are when they are first aware of being trans\* or begin identifying as trans\*, the more likely they are to experience discrimination (Bradford et al., 2013; Lombardi, 2009).

Other populations of trans\* folks who may be particularly vulnerable to experiencing stigma and discrimination as a result of their transgender identity include individuals with more feminine gender identities (Sevelius, 2012) and those who are members of an ethnic minority group (Garofalo et al., 2006; Sevelius, 2012). Studies based in San Francisco and Los Angeles found that Latina and African American transfemale adults had higher rates of HIV than Caucasian research participants. In a qualitative study of transgender women of color encompassing many non-white ethnic identities, Sevelius describes the process of gender affirmation for feminine transgender identities. Gender affirmation, or the confirmation of an individual as their preferred gender identity, can be found within the reinforcement of gender norms. Examples of gender normative behaviors for females include being the receptive partner during sex and being perceived as a non-transgender woman, also known as 'passing', both with people in general and men in particular. The latter occurs largely through the ability to access gender-affirming health care such as hormones and surgery. As a result of the search for gender affirmation, transgender women of color in this study described engaging in multiple high-risk behaviors such as sex work and high-risk sex within that work, accessing hormones and other gender-affirming therapies on the streets instead of from a licensed health care professional, and heavy substance use as a means to cope with rejection and transphobia and avoid dealing with difficult issues related to their gender identity (2012).

### **ADOLESCENTS & EMERGING ADULTS: The experience of stigma**

Adolescence and emerging adulthood is a period of significant development and transition in which brain maturation as well as emotional, social, and physical development are all occurring rapidly. Youth are striving to fit

in and be like their peers, while they are also cognitively limited by adolescent egocentrism, or the belief that “everyone is watching you or paying attention to you” (Steinberg, 2011). Additionally, the neurocognitive development of the prefrontal cortex, an area responsible for executive function activities such as planning, reasoning, decision-making, organization, and emotional regulation continues into the emerging adulthood years (Edidin, Ganim, Hunter, & Karnik, 2012). Adolescence and emerging adulthood is a critical stage of development during which health behaviors are adopted that can shape a person’s health over their entire lifespan (Osius & Rosenthal, 2009). For example, youth develop the capacity to self-refer for health-related illnesses during adolescence (Steinberg, 2011), and are thus able to be more in charge of their own bodies. However, we also know that despite this functional development, teens and young adults use mainstream health care the least, in part due to the fact that they are the most uninsured and underinsured of all age groups (Anderson & Lowen, 2010; Mulye et al., 2009).

Being different or an “other” as an adolescent has the potential to be more challenging for youth. Youth may not yet had the opportunity, time, or depth of experiences needed to develop a broad array of coping mechanisms to deal with such challenging situations as stigma. The expression of gender nonconformity or being perceived by others to be gender non-conforming can make youth in particular more vulnerable to victimization in many realms of their lives, including at home, in school, within their communities or neighborhoods, in employment and when accessing health care (Higa et al., 2014). For trans\* people, adolescence and early adulthood are distinct developmental periods through which they must navigate the typical adolescent milestones, but must do so while also operating within the social conditions of experiencing stigma and discrimination as a result of their gender identity (Corliss et al., 2008). In other words, they are tasked with the need to confront social challenges at a time when they are not only less developmentally capable of handling such challenges, but are also doing so within structures that are inherently discriminatory (Mayer et al., 2014). In addition to exploring their gender identity, as adolescents and young adults, they must also explore their sexual orientation in relation to their gender identity (Steiglitz, 2010), adding another layer of complexity to their development.

In a retrospective cohort study of 25 transgender youth ages 14-18, participants were asked to reflect upon their early adolescence. Researchers found that participants widely reported that the period between the ages of 10-13 was crucial largely due to three main factors: puberty, external environment, and sexuality. During *puberty*, bodies are changing in ways that may or may not align with one’s gender identity. Also, one’s *external environment* is changing, both in the more gendered ways in which one is being treated by others and because the move from middle school to high school is occurring and youth are encountering older peers. Finally, *sexuality* is another identity that is forming, which comes along with a variety of gender-normative expectations that a trans\* adolescent may struggle to navigate without the appropriate support (Steensma, Biemond, de Boer, & Cohen-Kettenis, 2011).

Because social and cognitive development is significant and ongoing during adolescence, experiences of stigma can result in risky behavior, or the utilization of poor or underdeveloped coping mechanisms, putting youth at risk for poor health outcomes as a result. Social welfare researchers Mallon & DeCrescenzo explain that these risky behaviors could be normal responses for a young person trying to cope within a hostile environment, especially if it is an environment that requires them to conform in ways that are actually inappropriate for them. They go on to note that should behavioral problems, depression, or other serious mental health issues result from this forced compliance, their gender identity may be held accountable, instead of the lack of acceptance of their gender identity by society and their own parents or caretakers (Mallon & DeCrescenzo, 2006).

Although limited data exist on the relationship between stigma experienced by trans\* adolescents and early adults and poor health outcomes, data from adult trans\* populations support these clinical observations. In the National Transgender Discrimination Survey (NTDS), a nation-wide survey of 6,450 transgender adults in 2008-2009, researchers found that trans\* people were more likely to use drugs, alcohol, or smoking as a mechanism to cope with discrimination relative to the general population (Grant et al., 2011). While we know that stigma experienced as a result of being trans\* can have consequences for the health of trans\* adults (Kosenko et al., 2013; Grant et al., 2011), little is known about how stigma specifically affects the health of adolescent trans\* populations. These data suggest that adolescence may be a key timeframe for interventions designed to mitigate the effects of stigma and discrimination on trans\* people.

### **RESILIENCE AND RISK FACTORS: Effects on Health Outcomes**

*“The simplest solution to decrease social sanctioning and acts of discrimination would be to accept people for who they are and value the diversity brought to communities.”*

Stieglitz, 2010

In an effort to ameliorate the health outcomes of trans\* youth, we must first understand the risk factors for poor health outcomes that trans\* youth face. Because some trans\* people are reliant upon the health care system for gender-affirming therapies such as medical, surgical and other non-surgical body modifications, the gender identity of a trans\* person can become medicalized in a way that few other core identities are (Hansmann et al., 2008). While not true for all trans\* people, numerous studies have shown that many trans\* people access some aspect of gender-related health care at some point in their lives in addition to non-gender-related care (Kuper, Nussbaum & Mustanski, 2012; Bradford, Reisner, Honnold, & Xavier, 2013). However, the experience of transphobia can be a barrier to health care access for trans\* people, especially if they seek to access that health care specifically in order to align their physical appearance with their felt gender identity. As a result, trans\* adolescents are at risk for a variety of poor health outcomes.



The onset of pubertal changes among children who are developing a gender identity that may not match with their developing bodies can be a period of increased body dissatisfaction. Increased body dissatisfaction may lead to numerous psychosocial problems including depression, anxiety, illicit substance use, high-risk sexual behaviors, and suicidality (Olson et al., 2011). LGBT youth in general are at increased risk for many of these outcomes, including depression, suicidal behavior, homelessness, familial rejection, dropping out of school, substance abuse, STIs, and victimization (Kitts, 2010). Healthy People 2020 further highlights research showing that LGBT youth are two to three times more likely to attempt suicide and are more likely to be homeless than their non-LGBT peers (2012).

Grossman & D'Augelli's cross-sectional, quantitative study from 2001-2003 of 55 transgender adolescents ages 15-21 found that trans\* youth experienced victimization from their peers, negative parental reactions to their gender expression/identity, substance abuse, and family violence on par with LGB peers, who in turn experience these health issues more than their heterosexual peers. Likely as a result of this gender-related discrimination, 45% of their participants had seriously contemplated suicide at some point in their lives and over a quarter of the sample reported a history of life-threatening behaviors, which are defined as non-fatal acts where there is some evidence that the individual intended to die (2007). In the first nationally representative study conducted with transgender high school students, researchers in New Zealand found that 40% of the 96 New Zealand high school students who identified as transgender had significant depressive symptoms, had harmed themselves and had been unable to access health care when they needed it at some point in their lives after they began identifying as trans\*. Overall, transgender youth were the group of students with the greatest health needs out of all of the gender identities (Clark et al., 2013). Finally, in considering the impact of holding multiple stigmatized identities such as being a trans\* ethnic minority adolescent, Garofalo et al. found that, in general, ethnic and racial minority trans\* youth have significant unmet service needs, limited social support, and face serious economic barriers (2006).

Several studies have shown that trans\* youth continue to be at increased risk for violence and discrimination as they transition into adulthood relative to the risk experienced by their cisgender peers. These experiences can result in long-term mental health challenges in adulthood such as experiencing post-traumatic stress disorder, depression, and lower self-esteem. Other health challenges such as increased numbers of sexual transmitted infections and sexual health concerns are present at increased rates than for non-transgender adults (Conron et al., 2014; Bauer et al., 2009; Kenagy, 2005). Similar to the findings in Garofalo et al.'s study of trans\* youth, researchers with the Virginia Transgender Health Initiative found that in their cohort of 48 adult transgender participants living in Virginia, African American adult transgender women who were sex workers experienced the most violence (Xavier et al., 2005), supporting the impact that multiple stigmatized identities may have on certain sub-groups within a non-homogenous population of trans\* people.

In recognition of the negative sequelae that come from increased levels of violence and discrimination, the National Transgender Discrimination Survey (NTDS) found that the percentage of people who had attempted suicide within the 18-24 and 25-44 year old age groups were 45%, with a lifetime suicide attempt rate among participants of all age groups at 41%. Additionally, participants were found to have an HIV infection rate four times that the general adult population in the United States, with a 2.64% infection rate among NTDS respondents compared to a 0.6% rate within the general US adult population. The NTDS data also support the importance of recognizing the social determinants of health, finding that 54% of respondents earning \$10,000 or less annually had attempted suicide compared to 26% of respondents earning over \$100,000. Government health estimates from 2010 show that five million or 1.6% of currently living Americans have attempted suicide in the course of their lives (Grant et al., 2011). These statistics highlight the significantly increased vulnerability for poor health outcomes experienced by trans\* youth and adults over and above that experienced by their non-transgender peers.

### **ACCESS TO HEALTH CARE**

In considering the medical and mental health care needs of trans\* people as those that are often over and above the needs of their non-transgender peers, the health care system is uniquely positioned to be a source of support and resources to trans\* youth. In addition to helping manage the sequelae of the diseases and illnesses trans\* people are at higher risk for experiencing, access to health care can be particularly important to trans\* people seeking hormonal or surgical therapies in order to align their primary and secondary sexual characteristics with their gender identity. This need for prescriptions, mental health care, referrals, surgeries, and the other therapeutic procedures for gender-affirming therapy that can only safely be provided medical and mental health professionals causes a dependence on medical and mental health care for basic identity expression (Stroumsa, 2014). As discussed earlier, in a number of social and legal arenas, the status quo is “heavily reliant upon medical evidence to establish gender identity” according to lawyer and trans activist Dean Spade (2003) and others (Hansmann et al., 2008). Transgender youth may need to access more health care specifically to acquire gender-related medical care than their cisgender peers who do not seek the same type of health care. In fact, the search for hormone therapy and other gender-related medical treatments is often what brings trans\* youth to access any kind of health care at all (Steiglit, 2010). In a 2007 study of service utilization among trans\* female adolescents seeking care at a Children’s Hospital Los Angeles’ gender clinic, the majority of respondents (83%) said that the main reason they sought services related to their trans\* identity was to access hormones for their gender transition (Corliss, Belzer, Forbes, & Wilson, 2007).

Access to hormone therapy for those who seek it is quite important. Gender-affirming hormone therapy can allow people to pass as the gender with which they identify. Passing not only allows them to move through their life with a body that is congruent with their internal gender identity, but also allows others to

perceive them as they see themselves. Passing can help individuals avoid much of the discrimination and victimization they would otherwise encounter with a gender presentation that does not fit within the male/female binary (Olson et al., 2011). This includes discrimination in employment, at school, in housing options, and accessing social services. Passing as their chosen gender can also help improve one's own self-esteem (Xavier et al., 2005).

Unfortunately, despite a need for gender-affirming health care as well as general health care for non-trans\*-related concerns, trans\* people often encounter significant barriers to accessing healthcare. Before we can look at barriers to accessing health care for trans\* youth, it is necessary to understand the components of care that should be present in general in order for health care to be considered accessible. Cruz states that there are five different aspects that should be considered:

- *Approachability* – A person must know that the service exists.
- *Acceptability* – The social and cultural factors that shape the service and its structure must be ones in which a person feels they can engage.
- *Availability* – The services can be physically reached in a timely manner.
- *Affordability* – A person must be able to afford the service.
- *Appropriateness* – Finally, one must believe that the service fits their particular need(s) (Cruz, 2014).

Several studies examining what youth in general need in order to access health care confirm this assessment. Specifically, the following elements are critical: appropriate marketing materials that inform youth about the existence of a service (approachability), overall provider competence and clinical experience (one aspect of acceptability), that hours of operation, the location of the clinic, and making appointments is an easy process for youth (availability), having insurance or otherwise being able to afford care or access free care (affordability), and that the types of services offered meet youth-specific needs, that offices and exam rooms are clean (appropriateness), (Hoffman et al., 2009; Osius & Rosenthal, 2009). When these aspects of care are not met, youth in general simply aren't able to, or perceive they're not able to, access the medical or mental health care they need.

A few small, qualitative studies show that trans\* youth face barriers to accessing health care on top of the barriers experienced by the general youth population. One small cohort study of 51 trans\*female youth found that the youth had experienced significant trans\*-related discrimination from medical and social service organizations. These experiences included the clinicians and staff being critical about the youth's gender non-conforming appearances, using incorrect pronouns for youth's current gender identity, and asking for their "real name" when a youth gave a different name than their birth name (Garofalo et al., 2006). In another qualitative study of 18 trans\* female youth ages 16-24 in Los Angeles, researchers found that financial and transportation barriers, as well as a lack of providers willing and knowledge about prescribing hormones (especially for youth under 18 years old), even with parental consent, were significant barriers to accessing health care that youth reported. Consequently, this difficulty drove

them to get hormones from non-licensed providers (Corliss et al., 2007). This further supports the notion that seeking access to hormone therapy drives the attempts of transgender youth to access medical care (Olson et al., 2011).

Consequences of encountering barriers to care can be seen in both trans\* adolescents and adults. In a group of ethnically and racially diverse trans female adolescents in Chicago, Garofalo et al. found that participants engaged in risky behaviors such as substance use, unprotected sex, and injection of hormones and of silicone not acquired from a licensed clinician (2006). Trans\* adults also seek access to the medical care necessary for their gender identity. Several studies in New York City, San Francisco, and Washington, DC showed that unsupervised hormone use ranged from 29-63% within groups of trans\*female adults. When not prescribed by a medical professional, it's possible to use too much of a medicine, which carries potential health risks. For people on estrogen therapy, hypercoagulability is the main risk, occurring at a rate of 0.4 – 2.6% per year among the trans\*female populations studied (Sanchez, Sanchez & Danoff, 2009).

## **ISSUES IN HEALTH CARE PROVISION**

*“As transgender health care moves into the mainstream, primary care physicians will be increasingly called upon to provide compassionate and individualized care to this diverse community.”*

Deutsch & Feldman, 2013

In a 2011 qualitative study that explored experiences of stigma in health care encounters, uncertainty or lack of knowledge emerged as a recurring theme among trans\* adult patients and their providers. As a potential explanation for the presence of uncertainty amongst providers, the researchers offered that “structural and institutional stigma ensure that transgender experiences and bodies are virtually absent from medical training and leaves most providers without clear guidelines for the medical encounter. This uncertainty can lead to ambivalence about providing care” (Poteat, German & Kerrigan, 2013). On a national level, HHS reports that the US lacks health care providers who are both knowledgeable and culturally competent in LGBT health (USD HHS). In a qualitative study of barriers for physicians in providing care to transgender and gender nonconforming people, researchers found that clinicians were not aware of clinical guidelines for trans\* patients and did not feel like they had a good network of appropriate referrals for patients (Snelgrove et al., 2012), both of which made it difficult for providers to offer the same level of care they would to non-trans\* patients (Cruz, 2014).

A 2010 study by Lambda Legal of 4,916 LGBT people and people living with HIV showed similar results, with 65% of their trans\* respondents (nearly 500 people) reporting having previously interacted with health care providers who were unaware of the specific health needs of transgender people. Several other recent studies found that 46-50% of participants said they had to educate their physicians about trans\* health and their specific health care needs (Lambda

Legal, 2010; Grant et al., 2011; Bradford et al., 2013). As a research participant in Bauer's qualitative study about health care discrimination stated: "*I've had more issues with lack of knowledge, having to [educate] my GP and my gyno... Not only do they not have the knowledge, but they have no interest to learn. You can give them information, you can offer them resources, but they cannot be bothered. So they would much rather pass you off and get you out of the office—'pass the tranny'*" (2009). This quote points to not only a lack of education within medical and other health profession schools, but also a perceived lack of desire and interest on the part of the provider to engage in continuing education to acquire and maintain competency with extant practice guidelines for trans\* patients.

## **GENDER-AFFIRMING HEALTH CARE**

Gender-affirming therapy, sometimes also called transition-related medical care, typically includes hormonal and surgical therapies (Stroumsa, 2014), as well as non-surgical body modification therapies such as laser hair removal, voice and communication training, mental health services, and reproductive assistance (Coleman et al., 2011), some or all of which a person may wish to access depending on their needs and desires. Several groups have developed care guidelines for providing gender-affirming therapy to adult and adolescent trans\* patients, including the World Professional Association for Transgender Health (WPATH) and researchers at an adolescent medicine clinic in Los Angeles (Coleman et al., 2011; Olson et al., 2011). The University of California, San Francisco's Center for Excellence in Transgender Health also maintains guidelines for general health maintenance for trans\* patients who may be using hormone therapy and schedules for relevant health maintenance labs (UCSF CoE in Transgender Health, 2014).

While some clinicians feel that utilizing referrals to endocrinologists or other trans\*-friendly providers is the best approach for the management of basic trans-specific health care (Snelgrove et al., 2012), other clinicians and researchers agree that primary care should be the home for trans\* medicine (Coleman et al., 2012). There are several reasons that the PCP is the clinician most appropriate for providing this care. Regarding the administration and management of hormone therapy, PCPs have the necessary fund of knowledge as a result of their experience prescribing estrogen, testosterone, and testosterone-blocking medicines for other health conditions. For example, the estrogens and testosterone-blocking medicines (such as those that are prescribed to trans\* patients seeking their feminizing effects) are the same estrogens used in primary care for contraception and the same testosterone-blocking medications used for treatment of hirsutism and prostate disease. Testosterone, used by trans\* patients seeking its masculinizing effects, is also used by PCPs in the treatment of androgen deficiency (Coleman et al., 2012; Deutsch & Feldman, 2013). The adjustment of dosages required to achieve the masculinizing or feminizing effects of gender-affirming therapy is a simple adjustment easily learned.

Aside from primary care providers, the policy statement for the American Congress of Obstetricians and Gynecologists (ACOG) states that Ob/Gyns are also encouraged to “either assist or refer” transgender individuals (2011), allowing this specialty latitude in decision making that was not previously available. Historically, Ob/Gyns have only worked with individuals who had been “born female.” The importance of PCPs and Ob/Gyns being able to offer care to trans\* people is found in the increased access this provides people who have otherwise been required to see a specialist like an endocrinologist who is harder to access and less available than a PCP. Still, despite research and Committee opinions regarding PCPs and Ob/Gyns as the natural providers of much of trans\*-related medicine, the dissemination of guidelines and research has yet to occur, resulting in the aforementioned perception by patients that their providers lack the necessary knowledge to provide gender-affirming care.

Adolescents may also seek gender-affirming therapy. There are several different treatment options for trans\*-identified youth, depending on their level of physical development. If they have fully gone through puberty, the same hormones that work for adults will also work for them. If they’re at the beginning of puberty, at Tanner Stage 2 or less (i.e. they have not yet fully entered puberty), another option is to delay puberty by prescribing gonadotropin releasing hormone (GnRH) agonists, also known as “puberty blockers.” Normally, endogenous GnRH is released from the hypothalamus in a pulsatile fashion. Its job is to begin the hormone cascade that results in either mostly estrogens or mostly androgens to be released. Administering a constant dose of GnRH as opposed to endogenous pulsatile release causes pubertal hormones to be suppressed and puberty to be delayed (Olson et al., 2011).

This can provide numerous benefits to gender nonconforming patients, including more time to explore their gender identity without the physical changes that come with puberty, being spared the psychological difficulties associated with developing secondary sex characteristics that do not match their gender identity, and not developing physical characteristics that will later require more surgery and interventions to adjust according to their gender identity (Cohen-Kettenis, Delemarre-van de Waal & Gooren, 2008). Risks of GnRH therapy include concerns about the effects on height and bone development. However, bone density tends to catch up when sex hormones are administered (Olson et al., 2011; Radix & Silva, 2014). Further, when puberty is not suppressed and a youth develops secondary sexual characteristics that do not affirm their gender identity, the risk of the resulting body modification procedures greatly outweighs the risk of postponing those pubertal developments.

Though a big step in the right direction, it’s not enough to just know the regimens, dosing, and lab schedules to assist patients with gender-affirming therapy. As a group of people who have experience discussing a multitude of private issues with patients, primary care physicians as well as nurse practitioners and physician’s assistants who work with these populations need to recognize the importance of talking openly with their patients about both their sexual orientation and gender identity, especially when dealing with adolescents and young adults (Kitts, 2010; Knight, Shoveller, Carson, & Contreras-Whitney,

2013; Steiglitz, 2010). It is likely that adolescents will only give information that is asked of them, so if a provider doesn't ask specifically about the sexuality or gender identity of their adolescent patient and or use open-ended lines of questioning, that adolescent is unlikely to volunteer this information on their own (Kitts, 2010).

### **CLINICIAN EDUCATION LACKS TRAINING IN TRANS\*-SPECIFIC CARE**

Barriers for clinicians to provide appropriate care to trans\* youth largely center around a lack of knowledge and include not knowing where to refer youth, not having trans\*-specific medical knowledge, confusion about the ethics of transition-related medical care, and limited understanding about the meaning of a diagnosis of Gender Identity Disorder (GID). Having to operate within a health care system that typically only recognizes male or female gender identities (Snelgrove et al., 2012; Poteat et al., 2013; Knight et al., 2013) brings with it issues in documenting, ordering tests, and billing. As a result of these known issues, several studies have outlined suggestions for improving these clinician barriers to care for trans\* youth, mainly focused on educational reform.

Simply stated, clinician education within undergraduate, graduate, and fellowship medical education programs as well as nursing and physician assistant graduate programs should include sufficient information about trans\* health (Stroumsa, 2014; Vance, Halpern-Felsher, & Rosenthal, 2015), especially by utilizing guidelines like those developed by the World Professional Association for Transgender Health as well as other extant research about the health care needs of trans\* people. Though there is a paucity of research about trans\* health issues, what is there is often only sparsely included in medical school curricula, if at all. In the only recent study of LGBT-related content in undergraduate allopathic and osteopathic medical education in the United States and Canada in 2008-2009, researchers found that between 30-35% of schools taught about "gender transitioning" and "sex reassignment surgery," though how much time was spent on these topics was not reported. However, the median time dedicated toward LGBT content in general for all schools was 5 hours (Obedin-Maliver et al., 2011).

Data regarding how much time schools spend in their curriculum covering the needs of other stigmatized populations is not known, thus we cannot conduct relative comparisons regarding the adequacy of the amount of time spent on LGBT education. However, other research tells us that physicians in practice don't feel prepared to work with trans\* people. In a survey of members of the Society of Adolescent Medicine, 65% of practicing physicians stated that they'd experienced a lack of training in transgender-specific health care and only 18% felt that the training they had received contained adequate emphasis on transgender medical care (Vance, Halper-Felsher, & Rosenthal, 2015). Aside from incorporating more trans\*-related training into medical school curricula, Healthy People 2020 discusses the additional goal of increasing the provision of culturally competent care to LGBT patients by providing undergraduate medical students with increased access to these patients (2012). Mayer et al. additionally state that "clinical training needs to be improved by [...] addressing clinician

attitudes toward sexual and gender minority youths, to enhance open and nonjudgmental discussions in clinical settings to facilitate patients' health and resilience" (2014). Data that show the effects of improved provider communication within the general population include increased patient satisfaction, adherence to treatments, better clinical outcomes, and a decrease in malpractice claims (Kosenko et al., 2013).

## **TRANS\* YOUTH HEALTH CARE PREFERENCES AND BEST PRACTICES**

Regarding the preferences of transgender youth about their interactions with health care providers, several recurring recommendations were found in the literature. For adolescent patients, a trusted health care professional can play an important, normalizing role for whatever questions, preferences, or behaviors they bring to the interaction (Mayer et al., 2014). Results from an online sample of 788 LGBTQ youth ages 13 - 21 (2% of whom identified as transgender) found that the ability of a provider to interact with patients in a supportive and affirming manner was more important to youth than that provider's specific competencies (Hoffman et al., 2009). Other studies have shown that another priority for trans\* youth is having a provider who is culturally competent and understands the unique needs of trans\* youth (Olson et al., 2011; Corliss et al., 2007). Thus, having an understanding of the health care needs of trans\* adolescents and emerging adults is particularly important for medical and mental health care providers.

Interventions focused on increasing an adolescent's comfort and acceptance of their gender identity, whatever that identity may be, have been shown to be more helpful than interventions focused on getting youth's gender identity to conform to more "acceptable" identities within the male/female binary. As discussed earlier in reference to research by Mallon and DeCrescenzo, asking youth to conform to gender norms instead of accepting them as they are may even increase feelings of distress and harm for the youth receiving those interventions (Mallon & DeCrescenzo, 2006 Olson et al., 2011). Instead, validating and affirming adolescent's gender identity and helping them understand the assets they possess were consistent recommendations in the literature (Corliss et al., 2007; Olson et al., 2011; Mayer et al., 2014). Gender affirmation is thought of as "an interpersonal, interactive process whereby a person receives social recognition and support for their gender identity and expression" (Sevelius, 2012). In a small, qualitative study of trans\* women of color, Sevelius relates the importance of gender affirmation to health outcomes, finding that individuals with the highest need for gender affirmation but with the lowest access to that affirmation were at the highest risk for negative health outcomes as they were compelled to utilize coping mechanisms to attain affirmation in whatever ways they could.

In addition to the clinician providing affirming, supportive care, training front and back office staff to be inclusive and respectful of patients with trans\* gender identities can positively shape a person's first experience at health facility (Bauer et al., 2009; Mayer et al., 2014; Stieglitz, 2010; Garofalo et al., 2009). Constructing an aesthetically welcoming clinic environment for trans\* people may



include the use of gender neutral bathroom signs or incorporating decorations and magazines in the waiting and exam rooms that show comfort with providing care for a diverse array of patients (Mayer et al., 2014). Further, developing intake forms that utilize the two-step method of gender identity collection shows trans\* inclusivity (Deutsch et al., 2013). For trans\* youth in particular, clearly displaying office policies regarding confidentiality and LGBT-affirming policies (Mayer et al., 2014) as well as providing comprehensive services to facilitate youth's gender transformation, specifically providing free medical management of hormone therapy, can be particularly important (Corliss et al., 2007).

## **THE ROLE OF MENTAL HEALTH CARE PROVIDERS**

In addition to the medical provider, mental health care providers are tasked with determining the applicability of a diagnosis of Gender Dysphoria as well as helping to facilitate psychological adjustment. Formerly termed Gender Identity Disorder (GID) in the DSM-IV, the DSM-5 uses the term Gender Dysphoria to denote the "strong and persistent cross-gender identification, persistent discomfort with the current sex, or a sense of inappropriateness in the gender role of that sex." Additionally, the discomfort must cause significant distress or impairment in functioning in one's life (APA, DSM-5, 2014). Current WPATH standards state that while the decision to begin hormone therapy is ultimately in the hands of the patient and can be started by any medical provider who has achieved competency in providing that care, the development of a therapeutic relationship with a mental health practitioner who has attained competency in working with trans\* people is recommended. WPATH also recommends, but does not require, that a trans\* person work with at least one mental health provider to assess readiness for surgery. They suggest that a trans\* patient obtain one referral from a mental health provider for breast/chest surgery (i.e. mastectomy, chest reconstruction, or augmentation mammoplasty) and two referral letters from separate mental health providers for genital surgery (i.e. hysterectomy/salpingo-oophorectomy, orchiectomy, or genital reconstruction surgeries) (Coleman et al., 2011). Fortunately, WPATH's standards of care also acknowledge that individuals should be able to receive gender affirming hormone therapy from a primary care provider without first receiving a definitive diagnosis of GD from a mental health care provider (Snelgrove et al., 2012).

Although WPATH Standards of Care do not require a mental health diagnosis prior to the initiation of hormone therapy or the acquisition of gender-affirming surgical procedures, In reality, most clinics and individual providers set their own requirements that need to be met before they feel comfortable prescribing hormone therapy to trans\* patients. Often, these requirements vary depending on the provider's knowledge base and level of comfort with these therapies as opposed to current guidelines. Unfortunately, while caution is warranted, exceedingly cautious providers may introduce more harm than good into the life of their trans\* patient. For example, it could be physically dangerous for a person to not be on hormone therapy while they're also living as their preferred gender. This may be particularly true if they are seeking medical care because they have experienced discrimination or violence related to the

perceived incongruence between their physical appearance and their gender identity. Alternatively, a person may already be experiencing significant psychological distress by the time they seek mental health care that only hormone therapy can alleviate. A person may also perceive that the requirements for getting approved for hormone therapy from the mental health provider are going to be too much of a barrier to them receiving care that they decide to acquire their hormones from a non-licensed provider, a common practice that carries its own risks (Sanchez, Sanchez & Danoff, 2009).

There are both proponents and critics of the requirement for a diagnosis of gender dysphoria in order for trans\* people to receive medical and mental health care. Proponents of a gender dysphoria diagnosis state that this diagnosis affirms people who are experiencing it. A diagnosis removes stigma and protects their access to care as a billable cause for treatment (Roberts & Fantz, 2014). Critics of the requirement of a diagnosis of GD, also noting the stigmatized nature of trans\* people's identities, question the causality of distress and discomfort associated with gender identity. Wondering if it is actually coming from within the trans\* person or if it is society's discrimination against gender identities that do not align with a person's natal sex as the cause of the distress and discomfort and, ultimately, the dysphoria. This begs the question of whether gender dysphoria is a mental disorder or a failure of society? Instead of utilizing the diagnosis of a mental disorder so that one may seek medical treatment, perhaps we could conceptualize an individual as having hypoestrogenemia or hypotestosteronemia? An analogy can be made with pregnancy, a condition that requires medical treatments, but is not a mental disorder. Could medical treatments for trans\* people be considered just that: a medical treatment for a medical condition (Stroumsa, 2014)? Additionally, similar to the lack of primary care providers who are properly trained and experienced with providing care to trans\* people, there are not enough mental health clinicians who have the proper training to accurately apply the diagnosis of gender dysphoria. A lack of trained providers creates a barrier to care for trans\* patients who may be required to go through a lengthy approval process by their medical provider, causing significant delays in access to care (Snelgrove et al., 2012).

Still, for adolescents in particular who want or need to seek the help of a mental health professional as they are navigating the transition into their appropriate gender identity, Olson et al. recommend the use of affirming treatment strategies. In this practice, therapists would work to "affirm a youth's sense of self, allow for exploration of gender and self-definition, [giving] the message that it is entirely acceptable to be whoever you turn out to be" (2011). Through this process, the therapist would maintain that being trans\* is not a mental illness. Qualitative research with trans\* youth support the benefits of this therapy. In a study of 18 ethnically diverse trans\* female youth ages 16-24, over a third of participants said that psychological counseling from a therapist that knew about trans\* issues and was nonjudgmental about their gender identity was helpful in that it helped them feel less isolated, develop a more positive self-concept, and assisted them in planning for the future and setting goals for their lives. Conversely, the same study found that if counselors were unaware of

transgender issues or if counselors made judgments about their client's gender identity or behaviors, they were viewed as unhelpful. In fact, 22% of youth found counseling to be unhelpful primarily because of these counselor attributes (Corliss et al., 2007).

## **YOUTH BARRIERS TO HEALTH CARE**

Many people still cannot afford health care. In a pre-Affordable Care Act study about access to medical care, approximately 20% of the general US population in 2006-2007 reported not getting or delaying medical care that they needed at some point within the past year. The reasons listed for postponement of care included either not having insurance, or having insurance and not being able to afford the increasing amounts of out-of-pocket payments required by their insurance (Cunningham & Felland, 2008). These numbers are even higher for trans\* adults. The National Transgender Discrimination Survey (NTDS) found that 55% of respondents who identified as transgender men and 49% of transgender women postponed care because they couldn't afford it, and 19% of respondents specifically reported they did not have health insurance. In the NTDS, even bigger disparities in the lack of health insurance were found in certain minority subgroups, including African Americans and undocumented non-citizens who were uninsured at rates of 31% and 36%, respectively. Additionally, 20% of transgender respondents and 17% of gender nonconforming respondents were uninsured, highlighting again the importance of allowing for greater distinction of gender identities than simply 'transgender' (Grant et al., 2011).

Participants in these studies may have lacked insurance for a variety of reasons. Unemployment and underemployment could be keeping them from employer-provided health insurance, which is where the majority of individuals in the US receive insurance. Also, they could have been denied health insurance because prior to the Affordable Care Act, seeking gender-related health care was considered a pre-existing condition and most insurance companies would not cover gender-related therapy (Roberts & Fantz, 2014; Bauer et al., 2009). As a result of these issues, and others not yet well understood in the literature, a smaller proportion of trans\* people than the general population access medical care, with only 30-40% utilizing any regular medical care (Feldman & Bockting, 2003).

In May 2014, Medicare released an announcement stating that it no longer excluded sex-reassignment (SRS) surgery from coverage, stating that its former exclusion, in place since 1981, was "no longer reasonable" because the surgeries are safe, effective, and no longer considered experimental (Rabin, 2014). While this inclusion is a step in the right direction, Medicare typically covers only older Americans and people with disabilities. It does not cover non-surgical treatment options like hormone therapy. However, WPATH standards of care state that hormone therapy should be the first step on the path for those eventually wishing to receive gender-affirming surgeries. This incongruence between what is covered by accessible insurances and what is recommended in trans\* health care guidelines highlights the work that is still needed to improve access to gender-affirming care. A seemingly more comprehensive coverage

policy for gender-related care can be found at the VA, where “medically necessary care is provided to enrolled or otherwise eligible intersex and transgender Veterans including hormonal therapy, mental health care, preoperative evaluation, and medically necessary post-operative and long-term care following sex-reassignment surgery.” However, only pre- and post-operative care, and not the actual surgery is covered - a current exclusion within VA health coverage policy (Stroumsa, 2014).

For youth seeking hormonal or surgical treatment, there is scarce discussion in the literature about how these therapies may be funded. What is discussed, however, is the importance of policies that affirm the right of youth to make decisions about their own health care under the age of 18 without requiring parental consent. Much like results found with policies surrounding pregnancy, contraception and STI testing in under age youth, youth assent instead of parental consent has been found to be protective for trans\* youth. For youth who are 16 years and older, WPATH recommends, but does not require, parental consent for the initiation of hormone therapy (Coleman et al., 2011). This is particularly helpful if youth don't feel safe coming out as trans\* to their parents (Olson et al., 2011).

### **NEXT STEPS: Why my study?**

It seems pertinent to revisit this statement from a report on the health of LGBT people from the Institute of Medicine: “All aspects of transgender-specific health care need to be expanded.” The report goes on to further state that, for LGBT youth (the use of that acronym being intentionally inclusive of trans\* youth), barriers to health care access, particularly around identity disclosure and interactions with providers, utilization rates, and the quality of care that youth receive all need further research (IOM, 2011). In the research reviewed here about the health care disparities experienced by trans\* adolescents and trans\* adults, studies rarely go beyond highlighting these disparities and looking at correlations between disparities and demographic characteristics beyond gender identity. Thus, there is still a great deal to learn about the social and structural determinants of health for trans\* youth. We know that, broadly speaking, the social determinants of health affect people's health-related outcomes (USD HHS). Specifically, age, race and ethnicity, education level and economic status, and where people live affect how, when and what kind of health care they are able to access. Until there are systematic, nationwide data collected regarding trans\*youth health care that will allow us to understand the role of social determinants on their health, large cohort studies are the next best option to answer these questions.

Paper 2 of this research project will involve performing a secondary exploratory data analysis of the social determinants of health in a cohort of 250 trans\*female youth. The goal of this analysis will be to evaluate the association between 10 demographic variables and the ability to access medical and mental health care as well as the perceived satisfaction with that care. The specific demographic variables that will be evaluated include age, race, gender identity, health insurance status, income, geographic residence, level of education

completed, and the stability of their current and past housing. Data were utilized from the baseline survey from the Shine Study, the first longitudinal study of HIV risk and resilience among trans\*female youth ages 16-24 in the San Francisco Bay Area. It is the largest cohort study of trans\*female adolescents. The specific research questions are:

1. What social determinants are correlated with problems accessing medical care and mental health care among adolescent trans\*women in the San Francisco Bay Area? Specifically, how do age, race, gender identity, health insurance status, income, geographic residence, level of education completed, and current and/or past housing correlate with barriers to accessing care.
2. For those who do access care, does the care they receive meet the gender-related needs of adolescent trans\* women?

The goal of this analysis is to influence where intervention efforts are focused. For example, if we find that youth ages 16-24 who are not currently in school have higher odds of having problems accessing care than youth who are in school, these data could emphasize the need for school-based interventions. Conversely, if we find that youth who do not have access to health insurance are more likely to have problems accessing mental health care and less likely to be satisfied with the care they receive, this data could drive policy-level interventions to increase access to insurance for vulnerable populations such as trans\* adolescents and young adults.

Although a minority of the entire population of adolescents, trans\* youth are a particularly underserved group of youth in terms of their health care needs. The health crisis of transgender adolescents and transgender adults is a documented fact. Future research has the potential to identify tangible, actionable methods and guidelines to ensure that youth are able to grow up to be healthy and successful adults. At a time when popular culture is focusing a spotlight on trans\* people, highlighting their resilience and struggles, engaging in these efforts is both a timely and worthwhile pursuit.

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## PAPER 2

### INTRODUCTION

Trans\* youth are adolescents and emerging adults whose gender identity is different from the gender typically associated with their assigned sex at birth (Coleman et al., 2011). The term *trans\** uses the asterisk, an internet search symbol, as a term inclusive of many identities such as transgender female, transgender male, gender queer, agender, and many more (Tompkins, 2014). Cisgender is a term used to describe people who are not trans\* (Bauer et al., 2009). This study looks specifically at trans\*female youth: those who were assigned a male sex at birth and who now identify as a gender other than male.

Trans\*female youth are a vulnerable population at risk for a variety of poor health outcomes. In addition to navigating the growth and development typical of adolescence, trans\*female youth must additionally navigate the incorporation of a gender-nonconforming identity (Stieglitz, 2010). Research has shown that trans\*female youth are at high risk for experiencing economic hardships, legal problems, barriers to accessing gender-affirming healthcare, limited family support, and risky sexual behavior (Garofalo et al., 2006). Compared to their cisgender peers, trans\* youth have higher rates of suicidal ideation and attempts (Grossman & D'Augelli, 2007), higher rates of substance use, and higher rates of experiencing bullying and harassment (Reisner et al., 2014). Trans\* youth are also disproportionately represented in the homeless youth population (Ray, 2006), with family conflict as the primary driver of trans\* youth homelessness and unstable housing (Durso & Gates, 2012). From a life-course perspective, the importance of investigating SDH among trans\*female youth is underscored by the health inequities experienced by trans\* adults, including higher rates of HIV and other STIs, hypertension, dyslipidemia, substance use, abuse and addiction, depression, and suicide than their cisgender counterparts (Bradford et al., 2013; Grant et al., 2011; IOM 2011).

The 2015 World Health Organization (WHO) Commission on the Social Determinants of Health (SDH) defines SDH as “the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping their daily life,” (WHO, 2015). While there is strong evidence of the importance of SDH to cisgender youth health (Viner et al., 2012), and some data about the relationship between SDH on trans\* adult health and well being (Bradford et al., 2013), there is a paucity of data investigating the impact of sociodemographic factors on SDH, specifically healthcare access, that impact the lives of trans\*female youth. This lack of data is partially due to the scarcity of national datasets that include trans\* identities and very few sizeable studies of trans\*female youth (Shields et al., 2013; Conron et al., 2014; Stroumsa, 2014).

Nonetheless, poor access to health care has been implicated as one SDH responsible for health disparities among transwomen (de Haan et al., 2015; Bradford et al., 2013). Also, we know that youth overall are the least likely age group to access medical care, and they are the most uninsured and underinsured of all age groups (Anderson & Lowen, 2010; Mulye et al., 2009). Black and Hispanic youth are more likely to experience disparities in access to medical and

mental health care than white youth (Vo & Park, 2008). Hispanic and low-income youth are more likely than youth of other racial and ethnic identities or higher-income youth to be uninsured (Mulye et al., 2009). Further, uninsured youth have poorer access to health care services and poorer health outcomes than insured youth (Osius & Rosenthal, 2009). Unstable housing and homelessness have also been strongly associated with problems accessing healthcare (Eddidin et al., 2012).

Using data from the largest known cohort of trans\*female youth aged 16-24 years, we analyzed the relationships between sociodemographic variables and the SDH for trans\*female youth, specifically barriers to both medical and mental health care. Based on findings from the youth literature, we investigated relationships between gender identity, age, race/ethnicity, income, insurance status, housing status, and education on medical and mental health care access for trans\*female youth. Our goal was to provide healthcare and youth service providers with background regarding the health-relevant context of trans\*female youth's lives so they may better serve this historically underserved group of youth.

## **METHODS**

We conducted a secondary analysis using data from the Shine study, a social and epidemiologic study of HIV risk and resilience among trans\*female youth in the San Francisco Bay Area. Procedures for recruitment, consent/assent, and enrollment are described in detail elsewhere (Rowe et al., 2015; Arayasirikul et al., 2015), and briefly here. Data were collected from August 2012 – March 2014. IRB approval was obtained from the University of California, San Francisco and the University of California, Berkeley. Participants completed an interviewer-administered survey and rapid HIV testing and received their HIV results at the end of the survey. Youth earned \$50 for participation.

### *Subjects and Recruitment.*

Participants were recruited from social media venues (eg. Facebook), health care clinics, safety net social services (including residential programs), community events, conferences, and peer referrals. Eligibility criteria included (1) being 16 to 24 years of age; (2) having been assigned a male sex at birth and currently identifying as a gender other than male; (3) living in one of eight San Francisco Bay Area counties; and (4) speaking English or Spanish. All participation was voluntary and confidential.

### *Measures.*

Independent variables included age, race/ethnicity, monthly income, gender identity, two housing variables (current housing situation and history of unstable housing), county of residence, current health insurance status, and two education variables. Participants who chose a single race/ethnicity that was not Asian, Black, Latina, or White were recoded as "additional race/ethnicity." Current living situation (a housing variable) was recoded into four new categories from the original nine categories. *Independently housed* included youth who

endorsed “own your own house” and “rent a house/apartment.” *Dependent or student housing* included “live with sex partner or friends,” “live with parents or other family members,” “live in foster home,” or “live with other legal guardian.” *Transitional housing or homeless shelter* included “live in a hotel or rooming house” and “transitional housing or homeless shelter.” *Other* included free-write responses such as “living in a car or squat,” “couch surfing,” or “paying nightly for a hotel.” The county of residence variable was recoded into San Francisco County vs. surrounding Bay Area counties from the original eight Bay Area counties. Insurance status was binary yes/no response.

Dependent variables regarding access to healthcare were measured with two survey questions: “Have you ever had problems getting health care services because of your gender identity or gender presentation?” and “Have you ever had problems getting mental health care services because of your gender identity or gender presentation?” Response options included yes, no, don’t know, refuse to answer, and not applicable. However, only yes or no responses were included in the analysis.

### *Statistical Analysis.*

Analyses were performed on SAS<sup>®</sup> 9.3 software. Frequencies were calculated for all independent variables. Chi-2 analyses were used to analyze the overall significance of the relationship between sociodemographic and social determinants and access to medical and mental health care. The Wilcoxon Rank-Sum test was used to test for significance between the variables ‘monthly income’ and ‘education completed’ and the two dependent variables as they were ordered, categorical variables. Logistic regression was utilized to assess associations between the ten independent sociodemographic and SDH variables and four dependent healthcare and mental health access variables. Unadjusted odds ratios are presented. Statistical significance for Chi-2, Wilcoxon Rank-Sum, and logistic regression analyses was established at a p-value of <0.05. Reference categories for all variables except ‘Ever had unstable housing’ were determined by using the group with the largest *n* within that variable.

## **RESULTS**

Of the 314 youth enrolled in the study, 250 were included in the final analysis. Participants were excluded from the analysis if they had missing data for any of their responses to the 10 independent SDH and sociodemographic factors (*n*=14) assessed in this analysis (see measures below), or if they responded “Refuse to answer,” “Don’t know,” or “Not applicable” to at least one of the dependent variables (*n*=50). The 50 participants who completed the survey, but who were excluded from the final analysis were less likely to have a female gender identity (Chi-2=14.3, *p*-value=0.003) and were more likely to currently be in school (Chi-2=5.3, *p*-value=0.02).

### *Frequencies of sociodemographic characteristics and SDH (Table 1).*

The mean age of our sample was 21.2 years old (SD 2.2). The sample included 38.4% white, 28.4% Latina, 12% black, 12% mixed race, and 2.4%

youth who were categorized as an additional race/ethnicity. Nearly half of our sample (48.4%) identified as female, 32.8% as transfemale/transwoman, 14% as genderqueer or gender fluid, and 4.8% identified as an additional gender, including agender, androgynous, feminine, femme, princess, and 24/7 crossdresser. Over half of youth (55.6%) had experienced unstable housing at some point in their lives and about one quarter (26.4%) were currently unstably housed. The majority of participants (81.6%) reported having health insurance. While only 14% of youth were 18 years of age or younger, one fifth (20.4%) had not yet completed high school.

#### *Chi-2 analyses (Table 2).*

Youth categorized as an additional race/ethnicity had a significantly higher proportion of participants reporting problems getting both medical (66.7%,  $p=0.01$ ) and mental health care ( $p=0.001$ ) compared to other racial/ethnic groups. Participants with unstable housing also had higher proportions of participants reporting problems accessing medical care (26.6% vs. 14.4%,  $p=0.02$ ) and mental health care (15.1% vs. 6.3%,  $p=0.03$ ) than youth with a history of stable housing. Youth who were housed in “other” housing situations (including “living in a car or squat,” “couch surfing,” or “paying nightly for a hotel”) reported higher problems accessing mental health care than youth in all other housing situations combined to ( $p<0.01$ ). Age, income, gender identity, county of residence, health insurance status, and both education variables were not significantly associated with problems accessing medical or mental health care.

#### *Unadjusted odds ratios (Table 3).*

Regarding access to medical care, youth who identified as genderqueer or genderfluid had lower odds of having problems accessing medical care compared to those who identified as female (OR 0.18, 95% CI 0.04, 0.77). Additionally, participants who reported a history of unstable housing had higher odds of problems accessing medical care compared to youth who reported a history of only stable housing (OR 2.16, 95% CI 1.12, 4.13).

For access to mental health care, compared to white youth, youth who identified as Latina had lower odds of reporting problems accessing mental health care (OR 0.22, 95% CI 0.06, 0.79). Youth who lived in dependent housing (i.e. with parents, other family members, or in student housing) had significantly lower odds of problems accessing mental health care than youth who were independently housed (OR 0.09, 95% CI 0.01, 0.65). Participants who reported a history of unstable housing had higher odds of having problems accessing mental health care than those who had always been stably housed (OR 2.65, 95% CI 1.08, 6.45).

Age, income, county of residence, health insurance status, and education were not independently related to either of the outcome measures.

## **DISCUSSION**

Across all social determinants of health evaluated, unstable housing had the most consistent and significant association with access to medical and

mental health care for this sample of trans\*female youth. Although homelessness and unstable housing has been demonstrated to negatively affect the mental and physical health of youth (Edidin et al., 2012), trans\*-identified adults (Grant et al., 2011), and racial minority trans\*female youth (Garofalo et al., 2006), research to explain the relationship between unstable housing and problems accessing medical and mental healthcare for trans\*female youth is limited. For youth in general, a lack of nearby support structures, including supportive people, may inhibit access to medical and mental health care (Edidin et al., 2012). Youth who have a history of unstable housing may have developed certain coping mechanisms such as substance use or abuse, high risk sexual behaviors, or behavioral disengagement that now make accessing health care more challenging (Stein, Dixon & Nyamathi, 2008). Similarly, efforts to secure housing may lessen resources youth have to devote to accessing healthcare. Stigma and perceived stigma from providers towards homelessness or transient living may also be a barrier to accessing medical and mental health care that youth experience (Edidin et al., 2012).

Housing instability, in addition to being a contributing factor on its own, may also be a marker for other structural instabilities in the lives of youth that make accessing healthcare significantly more challenging. Previous research on youth homelessness suggests that homelessness and unstable housing arise from a confluence of social, cultural, economic, and structural factors. Specifically, these factors include adverse childhood experiences, low education levels, a lack of legally employable skills, family breakdown, mental illness, poverty, discrimination, and exposure to violence. These factors may make it difficult for unstably housed and homeless youth to access health care and other supportive services (Public Health Agency of Canada, 2015).

Aside from risk factors for accessing care, we also found that dependent housing was protective. The trans\*female youth who lived with their family or in student housing were less likely to have problems accessing medical care than youth who lived on their own. Family conflict has been shown to be the most common cause of homelessness among LGBT youth (Ray 2006). It is possible that the youth who were living at home or in school-based housing may have both had access to insurance options through their family or school and the guidance and support to access medical care. Further, youth who lived in independent housing may have been living on their own because of family conflict and could have had less access to the supportive resources of family or school.

In addition to our findings around unstable housing, youth who identified as genderqueer or genderfluid were less likely to report problems accessing medical care as a result of their gender identity or presentation than female-identified youth. A genderqueer or genderfluid identity can be flexible, moving beyond the concept of gender as a male/female binary. It is possible that these youth may see the utilization of medical services to alter their gender presentation as interventions that conform to binary notions of gender to which they do not subscribe. Thus, they may not desire the same level of medical transition or services as youth who identified as female (Kuper, Nussbaum &



Mustanski, 2012). Previous qualitative research has shown that some youth prefer having flexibility with their gender identity because it offers them control over how they self-identify and how they present themselves to others (Higa et al., 2014). In healthcare situations where a trans\* identity may not feel safe to disclose, it is perhaps this flexibility in presenting one's gender identity to health care professionals in ways that reduced trans\* stigma that increased access to medical care for genderqueer youth. Still, considering the health inequities faced by transgender individuals, more research is needed to assess the possible meanings behind differences in access to care among people with varying trans\* identities.

While health insurance status was not a significant predictor of problems accessing care, it is notable that 82% of our youth reported having health insurance. This is comparable to 70-90% of insured youth California-wide in 2012 (Fronstin, 2013). The San Francisco Bay Area uniquely offers free and low cost gender-affirming health care to trans\*youth through programs at several different sites. It is possible that youth conflated these programs with health insurance, making the health insurance variable instead a proxy for free trans\* health-focused healthcare. Regardless, insurance is an important social determinant of health for adolescent populations (Sawyer et al., 2012). Several studies have shown that in addition to having a knowledgeable provider and confidential care, trans\* youth who had access to hormones (typically via health insurance) had better health outcomes than youth who did not (Coleman et al., 2011; Olson, Forbes & Belzer, 2011; Cohen-Kettenis, 2008). Further, a study of homeless young adults 12-25 years old in southern California found that health insurance coverage was strongly associated with healthcare utilization within that population (Winetrobe et al., 2015). Access to gender-affirming health care for trans\* adults has also been shown to improve health outcomes such as lowering odds of risk-taking behavior (Wilson et al., 2015).

There were several limitations to our study. We did not know the specific problems our participants experienced accessing gender-related health care. Although several studies have highlighted the qualities of health care that sexual minority youth (lesbian, gay, or bisexual) deem important (Hoffman et al., 2009; Mayer et al., 2014), the problems experienced by trans\*female youth in our study may differ from those faced by sexual-minority youth (Corliss et al., 2008). Qualitative research may be an appropriate approach to investigating the nature of the barriers to healthcare access that trans\*female youth face and how non-normative presentations of gender are barriers and facilitators to care. Also, these data were based on self-report and may be subject to recall bias. Finally, we cannot infer causality between housing and healthcare access due to the cross-sectional nature of the data.

Still, these data serve to further reinforce the need for health researchers and government to engage nationally representative samples of trans\* youth to develop a more comprehensive picture of the barriers to accessing health care that affect this vulnerable population of youth in the US. With over a quarter (26%) of the youth in our sample currently living in unstable housing and over half (56%) with a history of unstable housing, the need for an intervention to

alleviate the burden of housing issues on this vulnerable population is clear. Our results regarding problems accessing health care and housing instability encourage us to understand the larger structural context that shapes the lives of trans\*female youth in order to better understand their health care needs. Safe housing options and multi-service programs that incorporate both health and housing services for trans\*female youth are two key structural responses to our findings, and more is needed. In the context of our shifting national health insurance climate, it is also important to continue to explore how the distribution of health care resources available to trans\* youth, depending on where they live, may impact their health. Finally, our findings affirm the need to unpack how the diversity of gender identities may influence access to health care.

Based on our San Francisco cohort, the picture for trans\*female youth healthcare is mixed. We clearly have an immediate window of opportunity to influence the social determinants of their health and facilitate their transition to a fully inclusive and healthy adulthood.

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