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THE ASSESSMENT OF TRANSGENDER INCLUSIVITY IN PENNSYLVANIA
HEALTHCARE FACILITIES

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ABSTRACT

Transgender individuals underutilize healthcare systems in the United States due to stigmas, discrimination, a lack of competent practitioners, inexistent treatment guidelines, and insurance coverage. A scoring system, the Transgender Inclusivity Scoring System (TISS), was created to assess the trans-inclusivity of healthcare facilities in Pennsylvania via their websites. An interactive map of facilities and their trans-inclusivity scores was created using google maps. The average inclusivity star score of facilities in Pennsylvania was 0.73 out of 4 and the majority of counties did not have any three or four-star healthcare facilities. A linear relationship between urban population and trans-inclusivity was not found. It is unclear whether these finding are due to a lack of trans-inclusivity in the facilities or advertisement of their trans-inclusivity on their websites. It can be concluded that the underutilization of care by trans patients can be partially attributed to the low trans-inclusivity scores of healthcare facilities in Pennsylvania.

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Chapter 1

Introduction

According to the 2015 U.S. Transgender Survey (USTS), 30% of transgender individuals in Pennsylvania had a negative experience with a health care provider in the past year (National Center for Transgender Equality, 2017). These negative experiences ranged from providers refusing treatment to physical assault. This statistic, helps to at least partially explain the underutilization of healthcare by the trans community.

LGBT health has been identified as an area that needs to be addressed by healthcare professionals due to the health disparities present in this community (Mayer et al., 2008). Before, discussing some possible sources of these healthcare inequities, it is important to define the population that is being negatively impacted by our healthcare system. Wilson (2017) defined LGBTQ individuals as a diverse group of people with a sexual orientation and/or gender identity that is incongruent with the mainstream concepts of sexuality and gender. Even though the acronym itself stands for lesbian, gay, bisexual, transgender and queer, Wilson emphasized that there are other identities beyond these in the LGBTQ community. This community can be further broken down by dividing it into two groups based on gender identity and sexual orientation. Sexual orientation is based on a person's physical and emotion attraction to others while gender identity is one's internal sense of self (Keuroghlian, Ard, & Makadon, 2017). It is necessary to note that these two groups are not mutually exclusive and overlap is possible; for instance, a bisexual transgender patient would be part of both populations. Every LGBTQ patient's experience utilizing healthcare will vary greatly depending on other parts of their identity such as

ethnicity, age, and ability. However, it is important to narrow down the target population in order to determine what experiences are specific to each population. The scope of this paper focuses on healthcare experiences of transgender (trans) patients.

It is important to make the distinction between sex, gender, and gender identity. Even though they are often used interchangeably in society, sex and gender are not synonymous. Sex is based on one's biological makeup specifically their chromosomes, hormones, and anatomy. While gender is a social construct created by society that characterizes people based on societal standards of masculinity and femininity. Gender identity is one's internal sense of self and how they represent themselves within society (Aleshire, 2016). It is important to note that one's biological sex and gender identity may align but it should not be assumed that they always do. An example of someone whose gender identity differs from their biological sex is a transgender person. Transgender is defined as a person whose gender identity is different from the gender they were assigned at birth (Griffin, 2017).

There is a lack of literature surrounding the experiences of trans people with healthcare. However, in the past ten years, a few studies have been conducted to document trans patients' experiences with mainstream healthcare systems. The underutilization of care by transgender individuals has been attributed to: (1) the societal stigma associated with being trans, (2) prior experiences of discrimination, (3) a lack of education provided to healthcare providers, (4) nonexistent treatment guidelines, and (5) insurance coverage.

According to a study conducted by Reisner and colleagues (2015), 39.1% of female-to-male (FTM) trans people delayed routine preventative care due to anticipated stigma. Anticipated stigma is when one has a fear of being discriminated against due to their gender identity. Another 32.8% delayed seeking care when they were either injured or sick due to this fear of

discrimination. Another type of stigma is enacted stigma which is the actual experience of being discriminated against by a healthcare provider. Enacted stigmas specifically the refusal of care was experienced by 14.1% of the sample (Reisner et. al, 2015). Silverman (2009) explains trans patients' experiences with healthcare as navigating discrimination as a result of a system that has yet to address the needs of this underserved population. Poteat (2013) conducted in depth interviews with health providers to determine some sources of discrimination. Many healthcare providers admitted that they struggle with the idea of patients being trans due to their own personal and religious views. Some providers also discussed their discomfort treating trans patients due to their lack of knowledge. These barriers can be combated by healthcare facilities protecting their trans patients with proper wordage in their non-discrimination policy in addition to educating employees on trans health.

The underutilization of care due to stigmas and/or discrimination can have negative effects on a trans individual's health. A case report by Shukla, Asp, Dwyer, Georgescu, and Duggan (2014) presented the experience of a 46-year-old male to female (MTF) trans patient that underutilized health services after receiving inadequate care. The patient went to the hospital due to constipation but refused the care of the physician due to his uncertainty regarding how to address a transgender patient. The patient continued to put off going back for medical care until she had increased pain and experienced a ten-pound weight loss. The subsequent exam showed she had squamous cell carcinoma of the rectum which was fatal after complications. This case highlights another barrier that prevents trans patients from receiving appropriate care which is the lack of education that healthcare providers have received on trans people and their lives.

A survey conducted by researchers at Oxford University Medical School reported that 84.9% of participants stated a lack of LGBTQ healthcare education especially when it came to treating

transgender patients (Parameshwaran, Cockbain, Hillyard, & Price, 2017). Providers have stated that in addition to lacking any background knowledge in trans medicine they are very uncertain regarding what names and pronouns they should use for their patients (Poteat, 2013).

Furthermore, 68.1% of respondents said they were either very unconfident or unconfident knowing where they could find information to help them treat LGBTQ patients (Parameshwaran, Cockbain, Hillyard, & Price, 2017). These results highlight that not only are medical students not being educated on trans health but also they have not been provided with any resources to reference when treating trans patients. In the past ten years, more resources have been created that can be used to educate clinicians on the health needs of LGBT patients, therefore it is necessary for hospitals to provide these resources to their employees (Keuroghlian, Ard, & Makadon, 2017).

Another problem associated with undereducation in healthcare facilities is that treatment guidelines regarding trans healthcare are not provided. Shuster (2016) explains that without clear clinical guidelines, providers are able to treat patients using what they deem appropriate. When this happens, some providers act as gatekeepers while others only loosely follow the guidelines. It is important for healthcare facilities to provide their employees with guidelines that clearly outline a standard of care for trans patients. One example of guidelines that hospitals could institute are the WPATH standards of care. The World Professional Association for Transgender Health (WPATH) created these guiding principles so that trans patients can receive optimal and consistent care around the world (Wylie et al., 2016).

Along with inconsistent treatment standards across facilities, insurance coverage can limit trans people's ability to seek medical care. Compared to the general population trans people are less likely to have health insurance and less likely to be insured by their employers (Poteat,

2013). Without insurance coverage of transition related care and preventative services, many trans people choose to seek care outside of the system. Poteat (2013) discovered that over half of those who took hormones obtained their hormones from someone other than a doctor.

While the underutilization of healthcare services by trans people is well documented, few tools have been created to allow individuals to identify trans friendly hospitals. In 2007, The Human Rights Campaign (HRC) developed a Healthcare Equality Index (HEI) that is used to evaluate healthcare facilities LGBTQ+ inclusivity and equity. As of 2017, the HEI 2017 has evaluated 1619 healthcare facilities nationwide (Human Rights Campaign, 2018). The HRC also uses this information to create an interactive map which allows consumers to make an informed choice regarding where they seek care. While this provides patients with valuable information, the HRC only evaluates hospitals that register to be evaluated (Human Rights Campaign, 2018). Therefore, there is a significant number of hospitals that have not been evaluated especially facilities located in rural areas. Additionally, the HRC examines the LGBTQ+ population as a whole instead of looking at the individual experiences of each subpopulation. Currently, there is no resource available to the public that allows trans people to determine what medical facilities near them are trans-inclusive.

In order to rectify this gap, a systematic evaluation of the trans-inclusivity of healthcare facilities in Pennsylvania was undertaken. The trans-inclusivity of facilities was scored using the Transgender Inclusivity Scoring System (TISS) which used the HEI as a framework. Once these inclusivity scores were collected, an interactive map was created. This map will be equally useful for trans healthcare consumers and healthcare organizations. More specifically, it will allow trans patients to have input in their care which may result in an increase of their utilization of mainstream healthcare.

Hypothesis: The average trans-inclusivity score of healthcare facilities in Pennsylvania will be less than two out of four stars.

Research objectives:

(1): Create a set of criteria that can be used to determine a facility's trans-inclusivity

(2): Use these guidelines to determine a trans-inclusivity score for health facilities in Pennsylvania

(3): Develop an interactive map that allows trans people to see the trans-inclusivity score of hospitals in their area

Secondary Research Questions:

(1): Are there any counties in Pennsylvania that could be considered "deserts" for trans friendly hospitals?

(2): What percent of counties in PA have at least one hospital with a score greater than two?

(3): What percent of the facilities correspond to each star score?

(4): What criterion was met the most and the least by facilities?

(5): Is there a correlation between urban population and trans-inclusivity?

Chapter 2

Methodology

In order to create an interactive map that displays hospitals' trans inclusivity scores, a list of healthcare facilities in Pennsylvania was obtained and a set of criteria that could be used to evaluate the facilities and their policies was created.

Transgender Inclusivity Scoring System

The Human Rights Campaign (HRC) developed a set of guidelines, the healthcare equality index (HEI), to evaluate LGBTQ+ inclusivity in hospitals. The four main categories of the HEI are: non-discrimination and staff training, patient services and support, employee benefits and policies, and patient and community engagement (Human Rights Campaign, 2018). These categories align with the common obstacles cited in the literature regarding trans healthcare experiences. The common barriers referenced include discrimination, stigmas, an absence of education and training for providers, and a lack of treatment guidelines. Therefore, these four key factors and the HEI categories were used to create the Transgender Inclusivity Scoring System (TISS) (Appendix A). This measure had four main categories: (1) patient policies and services, (2) training, education, and community engagement, (3) transgender services and policies, and (4) employment policies. It included fourteen questions and only yes/no questions were used to limit the subjectivity of the scoring system. The patient policies and services questions focused on the wording of the facilities' non-discrimination policies

specifically whether “gender identity” and “gender expression” were included. The second category of questions, training, education, and community engagement, assessed what resources and programs were provided to educate patients and employees on trans health. For example, the presence of resources for LGBTQ+ health and trans health were evaluated by questions in this category. The transgender services and policies section focused on what trans services and policies were in place to minimize common barriers to care. The policies of interest included a preferred name policy, preferred gender identity policy, and the WPATH standards of care. The employment policies section focused on the wording of their employment non-discrimination policies along with their recruitment of LGBTQ+ employees.

Healthcare Facilities

The healthcare facilities evaluated were collected using the “PA Website Directory” (Pennsylvania Department of Health, 2005). The “PA Website Directory” is a database of all the health facilities in Pennsylvania grouped by county. Each individual entry includes the name, address, and type of the facility. The types of facilities evaluated were federally qualified health centers, hospitals, and rural health clinics. Other specialty hospitals including psychiatric and rehabilitation facilities were excluded since the scope of this paper is limited to hospitals that provide emergent and preventative care.

583 hospitals were considered for evaluation but only 394 facilities were scored. Hospitals were excluded from being scored for a variety of reasons. 52 hospitals were not scored because their website was not found via a google search. These hospitals were eliminated from the list because hospitals were scored using only their websites. Another 113 medical facilities were not scored because either they only provided specialty care (e.g. psychiatric care) or they

provided care for a certain subset of the population (e.g. trans youth only). These facilities were beyond the scope of this paper because this study focused on preventative and emergent care options for the entire trans population rather than a demographical subset. Some examples of facilities excluded based on these criteria include rehabilitation and pediatric hospitals. Twenty hospitals were listed twice on the “PA Website Directory” so the duplicate entries were removed. Four of the hospitals are now closed so they were also eliminated from the sample.

Many of the healthcare centers had more than one location. For these facilities, a score was determined and then that score was used for every location. For example, the Primary Health Network had twenty different hospitals on the list but their website was only used once to score the network then that score was used for all twenty hospitals. In total, 394 healthcare facilities were scored using the Transgender Inclusivity Scoring System.

Data Collection

The hospital’s name and location were entered into a search engine, Google, to find their website. Once the website was located, it was used to determine whether the facilities met each criterion. The entirety of each website was searched for information regarding the criteria. If there was a search bar on the website it was utilized to search the website for keywords in the Transgender Inclusivity Scoring System. The keywords searched were “discrimination”, “patient rights”, “preferred”, “equal opportunity employer”, “WPATH”, “LGBT”, and “transgender”. An excel spreadsheet was used to record the score for each facility along with the website used to obtain the score. If the information on the website confirmed that a hospital met a criterion, then the hospital got one point. However, if it did not meet the criteria or the search was inconclusive then it did not get a point. Once all of the

hospitals were evaluated the range of scores was used to calculate the score that a hospital needed to receive each star value (Table 1). The star scores ranged from zero stars to four stars.

Table 1. Scoring Scale

Score	Number of Stars	Map Pin Color
0	0	Red
1-3	1	Dark orange
4-6	2	Light orange
7-9	3	Yellow
10-12	4	Green

Statistical Analysis

Once all the healthcare facilities were scored, the scores for each county were summarized according to star number in an excel spreadsheet. Next, the average star score for each county was calculated. In order to determine a possible relationship between urbanity and trans-inclusivity in healthcare, the urban composition and RUC codes of each county were collected. The urban composition of each county was obtained using the 2010 U.S. Census (U.S. Census Bureau, 2012). While the most recent RUC codes from 2013 were collected from the United States Department of Agriculture (United States Department of Agriculture, 2016). The Rural-Urban Continuum (RUC) codes range from one to nine with one representing a metro area and nine a sparsely populated rural county. The average star score was plotted against both urban population and RUC code to evaluate the possible correlation between urban population and trans-inclusivity. The linear relationship between the two variables was evaluated using the R-squared value.

Map Development

After each hospital's score was converted into a star score, an interactive map was constructed using google maps. Each facility along with its address and star rating was added as a pin on the map. The pins were color coded to make the map more efficient for users with the highest scores being represented by green pins and the lowest scores being represented by dark red pins (Table 1). The map was then made public so that it can be used by people to find a trans friendly hospital near them.

Chapter 3

Results

Star Scores

394 healthcare facilities were scored via the Transgender Inclusivity Scoring System. The raw scores of the hospitals ranged from twelve to zero and the scaled star scores ranged from zero to four. The majority of the hospitals received a score of zero stars and less than 5% got a score greater than three. The only hospital that received a four-star rating was Geisinger which has seven different locations across Pennsylvania. The average score of all the facilities in Pennsylvania was 0.73 stars. This confirms the hypothesis that the average trans-inclusivity star score of healthcare facilities in Pennsylvania will be less than two out of four stars. Overall the breakdown of stars earned by healthcare facilities was zero stars (53.6%), one star (30.7%), two stars (11.9%), three stars (1.8%), and four stars (2.0%) (Appendix B).

The average star rating of the counties in Pennsylvania ranged from zero to three. The county with the highest average star score of three was Northumberland county, located in the central region of Pennsylvania. Fourteen counties tied for the lowest average star rating of zero and therefore could be considered a “desert” for trans-inclusive healthcare. These “desert” counties included Crawford, Potter, Clinton, Snyder, Sullivan, Beaver, Butler, Armstrong, Fayette, Indiana, Fulton, Juniata, Perry, and Franklin. The desert counties were located across the state, however, none were located in the southeastern portion of the state. Since only 21% of the counties had at least one facility that received a score greater than two stars, the majority of the counties lacked a three and/or four-star location.

Transgender Inclusivity Scoring System

All of the criteria on the Transgender Inclusivity Scoring System were met by at least one facility. However, only one location had a preferred gender identity policy (Table 2). Also, two of the criteria, a preferred name policy and the WPATH standards of care, were only met by two facilities. Out of the fourteen criteria, the one most frequently met was the inclusion of “gender identity” in either a facility’s non-discrimination policy or their patient rights (Table 2). 36 % of facilities had “gender identity” in their non-discrimination policy and/or their patient rights. The second most common standard met was the inclusion of “gender identity” in the employment non-discrimination policy. The transgender policies and services category received the least affirmative responses compared to the other three categories. The patient policies and services category received the largest amount of affirmative responses.

Table 2. Trans-Inclusivity Scoring System Totals

Category	Question	Affirmative Responses
Patient policies & services	Q1	46
	Q2	20
Training, education, & community engagement	Q3	5
	Q4	10
	Q5	18
	Q6	17
	Q7	14
Transgender policies & services	Q8	2
	Q9	1
	Q10	2
	Q11	7
Employment policies	Q12	5
	Q13	31
	Q14	12

Urban Population & Trans-Inclusivity

The percent of urban population in each county was plotted against the average star score in that country to determine whether there is a linear relationship between the two variables (Figure 1). According to the R squared value, 9.4%, there is not a well-defined linear relationship between the percentage of urban population in a county and the trans-inclusivity of healthcare centers located in that same county.

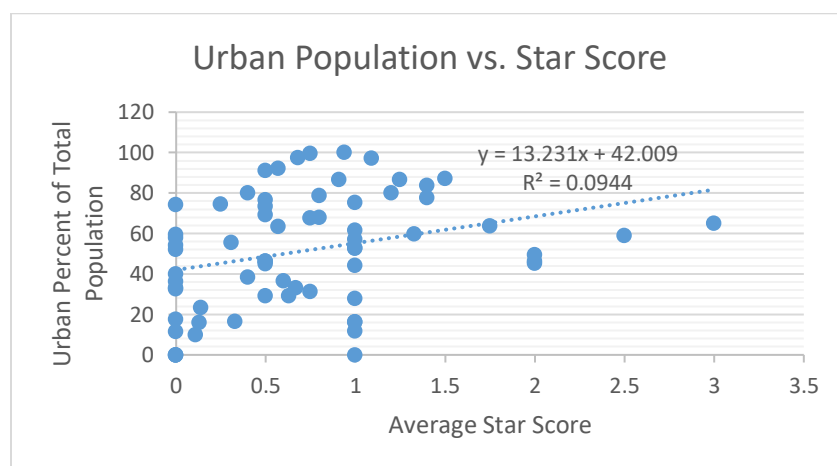


Figure 1. Relationship between Urban Population and Trans-Inclusivity of Facilities

The same relationship was evaluated by plotting the average star score of each county against its RUC Code. An R squared value of 1.3% again showed that there is not a linear relationship between urbanity and trans-inclusivity in healthcare facilities.

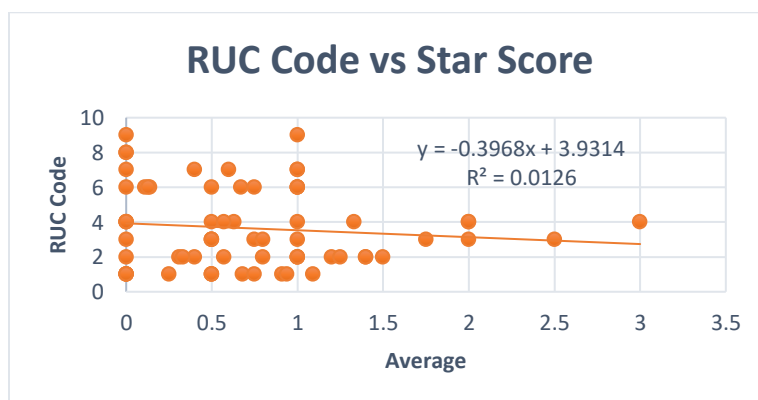


Figure 2. Relationship between RUC Code and Trans-Inclusivity of Facilities

Google Map

The google map was successfully created and includes 239 hospitals along with their trans inclusivity scores. The map was made public so anyone on the internet can access it via the following link:

<https://drive.google.com/open?id=14FT5vaoi816jTzb4e566quWmcgbfv5bj&usp=sharing>

(Figure 3). It was also shared directly with Penn State's LGBTQA resource center. The map showed a greater concentration of hospitals in the southeast portion of the state specifically in Philadelphia county. Also, there was another pocket of facilities located in the southwest surrounding Allegheny county. The central portion of the state had less healthcare facilities compared to the eastern and western regions. Three counties in Pennsylvania, Snyder, Sullivan, and Juniata did not have any healthcare facilities. The density of healthcare facilities is related to the demographical distribution across the state.

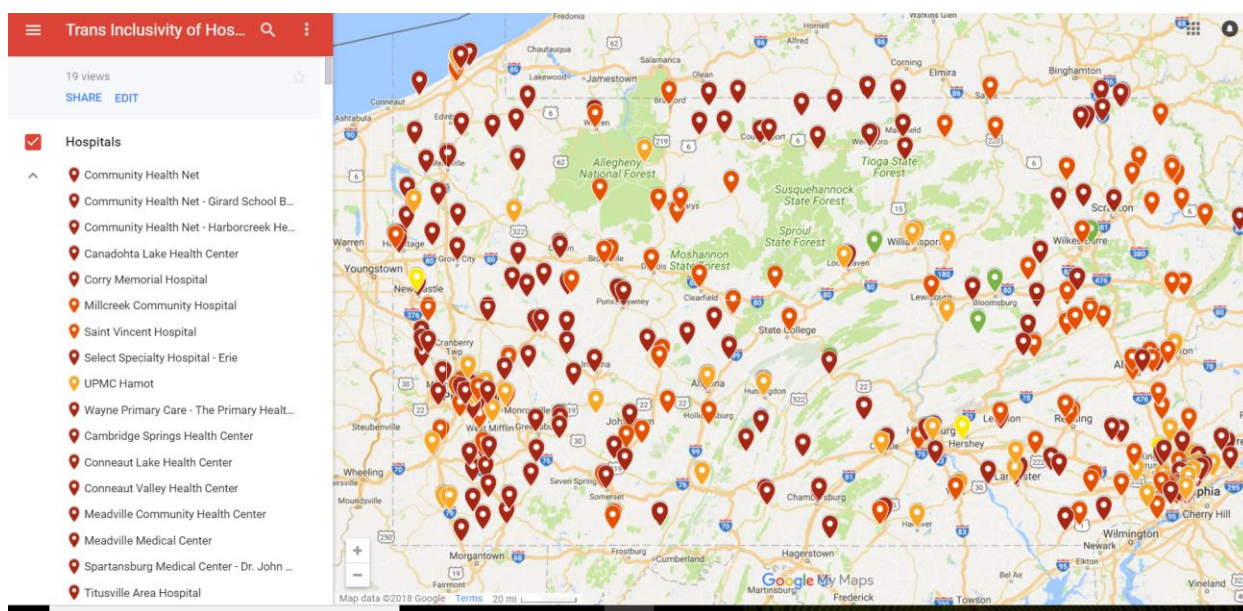


Figure 3. Trans-Inclusivity of Hospitals Google Map

Chapter 4

Discussion

A study conducted by Reisner and colleagues (2015) showed that trans individuals underutilize the healthcare system in the United States. Therefore, it is necessary to evaluate the trans-inclusivity of healthcare facilities in Pennsylvania to determine whether this underutilization of care can be attributed to the policies and practices of health facilities. The average star score of healthcare facilities in Pennsylvania was 0.73 out of four stars. Also, the majority of facilities evaluated received a score of zero stars. These initial results could lead one to the assumption that healthcare in Pennsylvania is not trans-friendly. However, another possible explanation for these findings is that facilities may not have information regarding their trans-inclusivity posted on their websites. This reveals one limitation of this study which is that only websites of health facilities were used to determine their trans-inclusivity score. In the future, further research to determine the cause of a low score must be conducted to determine whether policies and practices need to be reformed or their visibility needs to be increased.

In Pennsylvania, there are “deserts” for trans-friendly healthcare or areas where trans-inclusive care is not offered. Fourteen counties either lacked health facilities or only had healthcare options with a zero-star rating. These counties were often close to each other in geographic proximity. For example, Juniata and Snyder counties share a border and both lack a place for trans individuals to find trans-friendly medical care. This creates an issue where

individuals may have to drive not only to a neighboring county but even further to find care from trans-competent practitioners.

Less than one-fifth of counties had a hospital that received either three and/or four stars. Along with this finding, only one hospital evaluated received a score of four stars, highlighting that three and four star hospitals are not common in Pennsylvania. In order to change this trend, policies and practices of healthcare facilities need to be revised to be inclusive of trans people and their experiences.

The hospital that received four stars, Geisinger, could be used as a model for how hospitals can become more trans-friendly. Geisinger met all but two of the criteria specifically active recruitment of LGBTQ+ employees and a preferred gender policy. One strength of Geisinger's website is that it had a search box where you could enter keywords and it would search the entire website for them. This allowed for quick and efficient searching when determining whether the hospital was a trans-friendly location. Many of the other facilities' websites did not have a search bar and this made the process not only longer but it was also harder to locate information regarding trans health. More people are turning to the internet to research healthcare options in their area, therefore, all healthcare locations should try to maximize the ease with which users are able to navigate their site. It is important for hospitals to have their policies and practices on their website in a visible manner so that potential patients can make informed decisions regarding their health.

The Transgender Inclusivity Scoring System addressed many of the major obstacles that trans people must overcome to seek proper care. Therefore, the criteria with the lowest number of affirmative responses likely represents some of the largest obstacles for trans patient in Pennsylvania. Transgender policies and services including a preferred name policy, preferred

gender policy, the WPATH standards of care, and transgender clinical services were least likely to be part of healthcare facilities in Pennsylvania. The criteria most likely to be met by hospitals in Pennsylvania were the inclusion of “gender identity” in the patient non-discrimination policy, patient rights, and the employment non-discrimination policy. Even though these two criteria had the highest prevalence, they still were seen in less than 40% of the facilities. One step that other locations can do to increase their trans-inclusivity is to change the verbiage of their non-discrimination policies to explicitly list “gender identity” and “gender expression”.

The idea that urban counties in Pennsylvania have more trans-inclusive facilities compared to rural counties was not supported by either of the statistical analyses. The average star score of each county was plotted against both the percent of urban population and RUC code to determine whether there was a linear relationship between urbanity and trans-inclusivity. According to the R squared values, there was no linear relationship between urban population and average star score. This conclusion is consistent with the finding that regional culture is more predictive of health than rural or urban residence for trans people in the Midwest (Fisher, Irwin, & Coleman, 2013). However, the results from the TISS may be skewed by the large variance in the number of hospitals in each county. For example, some counties only had one hospital while others had more than twenty therefore the average of each county represents two different sample sizes.

The google map created is a useful way for people to determine what healthcare facilities around them can provide trans-inclusive care. By entering their address, individuals can zoom out and see the ratings of the hospitals near them based on the color coding of the pins. This model of creating a user-friendly map of the hospitals in a state with the TISS could be extended to include other cities, counties, or states.

The strength of this study is that it has created a practical resource for the trans community that was not available before. It also has developed a protocol for evaluating hospitals in other states in the United States. Future research will need to be conducted to determine the efficacy of evaluating hospitals based solely on their websites. Also, strategies for dissemination of this trans-inclusivity map need to be determined so that this resource can be utilized by trans people across Pennsylvania.

Chapter 5

Conclusion

The underutilization of healthcare in Pennsylvania by the trans community can be at least partially explained by the low trans-inclusivity scores of healthcare facilities. The average star score across of all the counties was 0.73 out of four stars which shows that there is a lack of trans-inclusive healthcare options across Pennsylvania regardless of population. There was not a linear relationship between urbanity and trans-inclusivity; therefore, it cannot be concluded that there are more trans-inclusive facilities in urban counties compared to rural counties. However, the google map created can be a useful resource for trans people to locate the most trans-inclusive healthcare facility in their area.

One limitation of this study is that only websites were used to score the facilities. Therefore, further research must be conducted to determine whether low scores were due to the policies and practices of the facilities or the visibility of their trans-inclusivity. In today's society, people are turning to the internet to research healthcare options so it is imperative that facilities' websites are up to date and reflective of their policies. Regardless of the reasoning, the low scores for healthcare facilities in Pennsylvania shows a need for re-evaluation of policies and practices to ensure inclusivity of trans people and their health.

In the future, a comparison between the distribution of the trans population in Pennsylvania and where inclusive facilities are located could be used to determine the overlap between the demand and supply of trans-inclusive healthcare.

Appendix A

Transgender Inclusivity Scoring System

Patient Policies & Services

1. Is “gender identity” included in their non-discrimination policy or patient rights?
2. Is “gender expression” included in their non-discrimination policy or patient rights?

Training, education, & community engagement

3. Are there any LGBTQ+ specific training/education programs?
4. Are there any trans specific training/education programs?
5. Are there any resources listed for LGBTQ+ health?
6. Are there any resource listed for trans health?
7. Does the hospital engage with the LGBTQ+ community?

Transgender Policies & Services

8. Is there a preferred name policy?
9. Is there a preferred gender identity policy?
10. Is the WPATH standards of care mentioned?
11. Do they offer any trans specific clinical services?

Employment Policies

12. Is the hospital actively recruiting LGBTQ+ employees?
13. Is “gender identity” included in their employment non-discrimination policy?
14. Is “gender expression” included in their employment non-discrimination policy?

Appendix B

Star Scores According to County in PA

County	0 Stars	1 Star	2 Stars	3 Stars	4 Stars	Average Score	RUC Code
Erie	7	2	1	0	0	0.4	2
Crawford	8	0	0	0	0	0	4
Mercer	10	2	1	0	0	0.31	2
Lawrence	1	1	0	1	0	1.33	4
Warren	1	1	0	0	0	0.5	6
Venango	0	0	1	0	0	2	4
Forest	0	1	0	0	0	1	9
Clarion	6	1	0	0	0	0.14	6
McKean	3	1	1	0	0	0.6	7
Elk	0	3	0	0	0	1	7
Jefferson	3	2	0	0	0	0.4	7
Cameron	0	1	0	0	0	1	7
Clearfield	2	2	0	0	0	0.5	4
Potter	5	0	0	0	0	0	9
Clinton	2	0	0	0	0	0	4
Centre	1	3	0	0	0	0.75	3
Tioga	8	1	0	0	0	0.11	6
Lycoming	0	3	0	0	1	1.75	3
Union	0	1	0	0	0	1	4
Snyder	0	0	0	0	0	0	7
Bradford	0	3	0	0	0	1	6
Sullivan	0	0	0	0	0	0	8
Columbia	0	1	0	0	1	2.5	3
Montour	1	0	0	0	1	2	3
Northumberland	0	0	1	0	1	3	4
Susquehanna	7	1	0	0	0	0.13	6
Wyoming	2	1	0	0	0	0.33	2
Luzerne	2	2	0	0	1	1.2	2
Carbon	0	2	0	0	0	1	2
Lehigh	3	4	0	0	0	0.57	2
Lackawanna	1	3	0	0	1	1.4	2
Monroe	0	2	0	0	0	1	3
Northampton	0	1	1	0	0	1.5	2
Wayne	0	7	0	0	0	1	6
Pike	1	1	0	0	0	0.5	1
Beaver	4	0	0	0	0	0	1

Washington	5	2	1	0	0	0.5	1
Greene	4	0	2	0	0	0.67	6
Butler	2	0	0	0	0	0	1
Allegheny	18	14	6	0	0	0.68	1
Armstrong	5	0	0	0	0	0	1
Westmoreland	7	0	1	0	0	0.25	1
Fayette	6	0	0	0	0	0	1
Indiana	3	0	0	0	0	0	4
Cambria	1	4	0	0	0	0.8	3
Somerset	3	5	0	0	0	0.63	4
Blair	4	1	1	0	0	0.5	3
Bedford	1	0	1	0	0	1	6
Huntingdon	3	4	1	0	0	0.75	6
Fulton	2	0	0	0	0	0	8
Mifflin	1	0	0	0	1	2	4
Juniata	0	0	0	0	0	0	6
Perry	1	0	0	0	0	0	2
Cumberland	2	1	1	0	1	1.4	2
Franklin	4	0	0	0	0	0	3
Adams	1	1	0	0	0	0.5	3
Dauphin	2	0	1	1	0	1.25	2
Lebanon	1	1	0	0	0	0.5	3
York	2	1	2	0	0	1	2
Schuylkill	3	4	0	0	0	0.57	4
Berks	0	3	0	0	0	1	2
Lancaster	6	1	2	1	0	0.8	2
Bucks	3	3	0	0	0	0.5	1
Montgomery	4	1	4	1	0	1.09	1
Chester	4	5	1	1	0	0.91	1
Philadelphia	32	13	16	2	0	0.94	1
Delaware	3	4	1	0	0	0.75	1
Total	211	121	47	7	8	0.73	
Percent	53.5533	30.71066	11.92893	1.77665	2.030457		

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EDUCATION

Schreyer Honors College at the Pennsylvania State University, State College, PA
B.S. Kinesiology, Honors Biobehavioral Health, May 2018

Thesis Title: **The Assessment of Transgender Inclusivity in Pennsylvania Healthcare Facilities**

Thesis Supervisor: **Dr. Joshua Rosenberger**

George Washington University, Washington, D.C.
Exercise Science, August 2012-January 2015

CLINICAL EXPERIENCE

Patient Floor Volunteer **September 2017-present**

Mount Nittany Medical Center, State College, PA

- Volunteered for over 100 hours on patient floors
- Transported patient, equipment, and other materials between patient floors

SOAR Health Intern **May 2015 – September 2015**

(Summer Opportunity for Achievement in Research)

Georgetown University, Washington, DC

- Evaluated exercise interventions for African American breast cancer survivors
- Developed educational tools to help African American breast cancer survivors adopt a healthy lifestyle

Research Scholar **May 2013 – August 2013**

Lehigh Valley Health Network, Allentown, PA

- Reviewed 476 patient records to find trends regarding cardiothoracic readmission rates at the Lehigh Valley Hospital
- Conducted research regarding the possibility of ECMO use without anti-coagulation

PRESENTATIONS

“Successful Long-Term Extracorporeal Cardiopulmonary Membrane Oxygenation without Anti-Coagulation.” Paper presented at the 2013 ELSO (Extracorporeal Life Support Organization) Conference, Philadelphia, PA. September 2013.

“Causes of Post Cardiac Surgical Readmissions.” Paper presented at The Lehigh Valley Hospital, Allentown, PA. July 26, 2013.

“The Utilization of Preventative Health Services by Transgender College Students.” Paper presented at Penn State University, State College, PA. December 13, 2016.

LEADERSHIP/VOLUNTEER

Big Brothers Big Sisters Program

Big Brother, January 2017-Present

Commission on LGBTQ+ Equity

Affiliate Member, August 2016-Present

George Washington University

Undergraduate Teaching Assistant, August 2014-January 2015

General Chemistry

SKILLS/CERTIFICATIONS

Conversational American Sign Language

CPR-HCP