Effects of LGBTQ+ Affirming Care on Uptake of Preventative Care, Management of Chronic Disease, and Aging Outcomes

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ABSTRACT

Introduction: Experiences of discrimination and bias in healthcare contribute to health disparities for LGBTQ+ and other minority populations. This study examines whether access to an LGBTQ+ affirming provider may improve health outcomes for LGBTQ+ populations by ensuring patients receive necessary and timely screenings.

Methods: This cross-sectional study uses Poisson regression models to examine original survey data (n=1,256) from Wave 1 of the Vanderbilt University Social Networks, Aging, and Policy Study, a panel study examining health and aging among older LGBTQ+ adults, collected between April 2020 to September 2021.

Results: Overall, access to an LGBTQ+ affirming is associated with uptake of several preventative health screenings, improved management of mental health conditions, and lower levels of cognitive impairment among older LGBTQ+ adults. Compared to participants reporting a usual source of care that is not affirming, participants with an LGBTQ+ affirming provider are more likely to have ever and recently received several types of preventative care, including routine checkups, colorectal cancer screenings, flu shot, and HIV test. Access to an LGBTQ+ affirming provider is also associated with better management of mental health conditions and a lower level of cognitive impairment.

Conclusions: Inclusive care is essential for reducing health disparities among LGBTQ+ populations. Health systems can reduce disparities by expanding education opportunities for providers regarding LGBTQ+ medicine and adopting best practices for LGBTQ+ inclusive care, including the adoption of nondiscrimination policies for LGBTQ+ patients and employees.

KEYWORDS

Affirming care; LGBTQ; aging; cognitive impairment; preventative care

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INTRODUCTION

Lesbian, gay, bisexual, transgender, and queer (LGBTQ+) adults experience significant health disparities, including higher rates of hypertension, cardiovascular disease, diabetes, and suicidality relative to the general population.[1–4] Health disparities by sexual orientation and gender identity are especially pronounced at older ages,[5–8] and likely include a higher risk of all-cause cognitive decline.[9]

Differences in health behaviors, healthcare access, and lifetime exposure to minority stressors like homophobia and transphobia contribute to LGBTQ+ disparities in health and aging.[4,10–14] Although LGBTQ+ people experience minority stressors in many domains of their lives, discrimination, stigma, and harassment within healthcare settings reinforce LGBTQ+ health disparities.[15,16] In this paper we examine whether access to LGBTQ+ affirming healthcare affects uptake of preventive health screenings, chronic diseases management, and aging outcomes among a sample of older LGBTQ+ adults.

The negative effects of non-affirming healthcare environments on LGBTQ+ health are well documented. LGBTQ+ adults are more likely to report missed or delayed preventive screenings than their cisgender heterosexual counterparts.[17–19] Among older LGBTQ+ adults, delayed and foregone care are associated with prior experiences and expectations of discrimination in healthcare.[5,20] Among transgender adults, about one-third report delaying or avoiding necessary care due to fear or previous experiences of discrimination.[21] Within the LGBTQ+ population,

transgender people are less likely to be up-to-date on preventive care than lesbian, gay, and bisexual adults, and disparities are greater for transgender men than transgender women.[11]

LGBTQ+ adults' negative experiences in healthcare stem in part from a lack of provider fluency in LGBTQ+ health, identities, and behaviors. Surveys of physicians find that a majority have few or no reservations about providing care to LGBTQ+ populations.[22,23] However, given limited engagement with LGBTQ+ health in medical curricula,[24–26] physicians often feel unprepared to support LGBTQ+ patients.[27,28] Regardless of intention, providers' lack of competency may prompt LGBTQ+ patients to not disclose their sexual and gender identities, seek care outside of a primary care context, and delay or forgo care, even when care that is not related to their LGBTQ+ identity or sexual health.[27,29,30] Lack of physician competency in LGBTQ+ identities is also associated with a lower likelihood of partner involvement in care decisions and higher unmet medical needs for the patient.[31]

When patients do not feel comfortable disclosing their sexual orientation, gender identity, or discussing sexual behavior, this can lead to the provision of inappropriate care, inattention to specific health care needs, and missed diagnostic screenings.[15,32–34] The provision of inappropriate care is especially pronounced for sexual minority women and transgender patients. Sexual minority women are significantly less likely to be offered a Pap test than heterosexual women.[18] Similarly, transgender people with prostates are less likely to get screened compared to cisgender gay men and heterosexual men.[35] Gay and bisexual men who do not disclose their sexual orientation to their primary provider are less likely to receive HIV and other STI tests and hepatitis vaccinations.[36–39] The lack of affirming care options for sexual minorities can also lead

to healthcare fragmentation, where individuals seek care outside of primary care contexts because of gaps in provider knowledge, greater comfort with community providers, or expectations of discrimination.[40]

In contrast, access to LGBTQ+ affirming healthcare may ameliorate unmet health needs by ensuring patients receive necessary and timely screenings. For example, HIV-negative gay and bisexual men with LGBTQ+ affirming providers are more likely to have ever tested for HIV and to be aware of current HIV prevention strategies.[41] Institutional approaches to support LGBTQ+ patients and providers have also been associated with a range of other positive outcomes. For example, patients report higher satisfaction when health systems are LGBTQ+ affirming regardless of sexual orientation or gender identity.[42] Moreover, explicit and inclusive visitation policies may improve partner engagement and support for LGBTQ+ patients.[43] LGBTQ+ affirming healthcare providers are also more likely to have explicit employee and patient nondiscrimination policies as well as staff training in LGBTQ+ patient-centered care.[44]

This study focuses on the experiences of older LGBTQ+ adults in the U.S. South. Barriers to accessing and providing LGBTQ+ affirming care may be particularly acute in Southern U.S. states. An estimated 35% of LGBTQ+ adults in the U.S. live in the South, where they are more likely than anywhere else in the country to earn less than $24,000 a year, lack health insurance, and report that they cannot afford food or healthcare.[45] Southern states are more likely than Northeastern and Western states to have laws that explicitly exclude or do not provide adequate care for sexual and gender minorities in healthcare.[46] Southern states also have fewer “LGBTQ

Healthcare Equality Leaders" compared to Northeast and Western states, according to the Human Rights Campaign 2020 Healthcare Equality Index.[44]

Below, we examine the healthcare determinants of receiving timely preventative screenings including regular checkups, cancer screenings, and HIV testing; chronic care management; and cognitive impairment among older LGBTQ+ adults. Specifically, we examine whether having an LGTBQ+ affirming care provider affects health, aging, and disease management outcomes among older LGBTQ+ adults compared with LGBTQ+ adults who have a regular source of care that they do not perceive as affirming. Importantly, whereas few studies have adequate sample sizes to investigate drivers of within-group variation in health and aging among the LGBTQ+ population, we are able to identify healthcare experiences within the LGBTQ+ population that may contribute to resilience in later life, or conversely, exacerbate negative effects of minority stress exposures.[6] Additionally, by focusing on older adults aged 50 to 76, a group that is understudied despite high rates of unmet medical needs, we are able to assess both recent and lifetime uptake of many preventative cancer screenings that only are recommended later in life and investigate links to other aging outcomes.

METHODS

Study Sample

This cross-sectional study uses survey data (n=1,256) from Wave 1 of the Vanderbilt University Social Networks, Aging, and Policy Study (VUSNAPS), a panel study examining older LGBTQ+ adults' health and aging, collected between April 2020 to September 2021. Participants include LGBTQ+ adults aged 50 to 76 who reside in Alabama, Georgia, North

Carolina, and Tennessee. This study was approved by the Vanderbilt University Institutional Review Board. VUSNAPS recruited participants using community outreach at LGBTQ+ and senior organizations, events, and paid targeted online ads on social media platforms. In the following analysis, we limit the sample to those who report having a usual source of care other than an emergency room (n=1,128) to make appropriate comparisons.

Measures

Access to an LGBTQ+ affirming health care provider. Participants were asked "Do you have an LGBT-affirming health care provider?" with response options: "Yes, they are my primary health care provider; Yes, I see them in addition to another health care provider; No, I don't need or want an LGBT-affirming health care provider; No, I cannot find an LGBT-affirming health care provider in my area; I don't know; and No answer." Respondents who reported "Yes" were coded as having access to an LGBTQ+ affirming health care provider. All others were coded as no.

Health. We examine several health and aging outcomes, including self-rated health, chronic disease management, receipt of appropriate, timely, and lifetime preventative care, cognitive impairment, and impairments to activities of living (ADL).

We measure chronic disease management for five conditions: high blood pressure, diabetes, any heart condition, any respiratory condition, any mental health condition. Conditional on having a specific health condition, participants were asked: "Is your condition [high blood pressure,

diabetes, heart condition, respiratory condition, mental health condition] pretty much under control (1) or is it still a problem (0)?").

We measure receipt of appropriate, timely, and lifetime preventive care using two measures. First, participants were asked, "Have you ever had any of the following preventative care screenings or tests?" including flu shot, breast cancer screening or mammogram (women and transgender only), pap smear or pap test (women and transgender only), colorectal cancer screening or colonoscopy, and HIV test. If participants indicated ever having one or more of these tests, they were then asked, "Have you had any of the following tests or screenings in the last 3 years?"). Although screening recommendations vary, the U.S. Centers for Disease Control and Prevention and the U.S. Preventative Task Force recommend mammogram screening, cervical cancer screening, and HIV testing at least every three years for most adults in our sample.[47] Colorectal cancer screening is recommended for all adults beginning at age 50, and then every 5 to 10 years depending on screening mode and other risk factors. For this reason, we only use lifetime receipt of colorectal cancer screening as an outcome.

Aging. We measure level of cognitive impairment using an adapted version of Informant Questionnaire on Cognitive Decline in the Elderly (IQCoDE), a 16-item measure capturing difficulty remembering and making day-to-day decisions. In the adapted version, participants were asked to endorse items that apply rather than rate their trajectory as in the original IDCoDE. Impairments to activities of daily living (ADL) are measured using a 5-item measure as operationalized by CDC surveillance methods.[48] ADLs include difficulty walking several blocks,

dressing oneself, bathing or showering oneself, difficulty hearing, difficulty seeing or reading, or none of the above.

Covariates. We control for participant age, race and ethnicity (person of color vs non-Hispanic white), gender identity (cisgender man, cisgender woman, transgender/nonbinary/gender nonconforming), education (college degree or more vs less than college degree), household income, state of residency, and health insurance coverage. We also adjust for whether the participant has any chronic conditions and whether the participant reports a memory-related disease diagnosis in some models, as specified below.

Statistical Analysis

All analyses were conducted using Stata v17. For binary outcome variables, we estimated adjusted risk ratios using modified Poisson models with robust error variance which provides easily interpretable and unbiased estimates when the outcomes is common.[49,50] We use adjusted Poisson regression models to test for differences in count outcomes (number of items endorsed for cognitive difficulties and number of ADLs). All adjusted models control for age, race and ethnicity, gender, education, household income, state of residency, and health insurance coverage. Models predicting number of ADLs control for having any chronic conditions and models for cognitive impairment controlled for having a memory-related disease diagnosis.

RESULTS

Access to an LGBTQ+ Affirming Care Provider

The study sample includes 1,128 LGBTQ+ adults with a usual source of care. Of these, about two-thirds (63%) report having an LGBTQ+ affirming provider. Table 1 presents full demographic characteristics of the sample by whether they reported having an affirming provider. Individuals with an LGBTQ+ affirming provider are more likely to identify as cisgender men, transgender, or gender non-binary (66.9% vs 55.2%, p< 0.001), as white (88.7% vs 83.8%, p=0.062, to have completed a college degree or higher (75.1% vs 65.11%, p=0.001), to have a family income above $60,000 (66.9% vs 54.9%, p<.001), to be living in North Carolina or Tennessee (63.2% vs 54.7%, p=0.002). Individuals who reported having an affirming provider are also more likely to have health insurance coverage (97.0% vs 94.2, p=0.019), to be HIV positive (16.5% vs 3.9%, p<0.001), and to have 1 or more chronic conditions (89.0% vs 85.0%, p=0.051).

Preventive Care

Table 2 presents the adjusted risk ratios for the effect of having an LGBTQ+ affirming care provider on update of preventive care, chronic disease management, and aging outcomes. Compared to participants who report a usual source of care that is not affirming, participants with an LGBTQ+ affirming provider are more likely to have ever and recently received several types of preventative care. Individuals with an LGBTQ+ affirming provider are 4.5% (95% CI 1.7 to 7.4%, p<.001) more likely to have had a routine checkup in the past year, 7.6% (95% CI 0.7 to 15.0%, p<.05) more likely to have ever had a colorectal cancer screening, 6.8% (95% CI 1.9 to 11.9%, p<.001) more likely to have ever had a flu shot, 8.6% (95% CI 2.9% to 14.6%, p<.001) more likely to have had a flu shot in the last 3 years. Gay and bisexual men and transgender people with an affirming provider are 14.4% (95% CI 4.3% to 25.3%, p<.001) more

likely to have ever had an HIV test, and 35.7% (95% CI 9.7 to 67.8%, p<.001) more likely to have an HIV test in the last 3 years. We do not observe differences in the timely or lifetime receipt of pap smear and mammogram screenings among women and transgender people as a function of having an affirming care provider. Figure 1 plots adjusted risk ratios for all preventive care and chronic disease management outcomes estimated using modified Poisson regression models.

Chronic Disease Management

LGBTQ+ individuals with an affirming provider are 12.2% (95% CI 0.0% to 25.9%, p<0.10) more likely to have their mental health condition under control. We do not observe significant differences by provider type in the likelihood that other health conditions are reported as "under control" for those with high blood pressure, diabetes, heart conditions, respiratory conditions, or arthritis/rheumatism.

Aging Outcomes

LGBTQ+ individuals with an affirming provider report 18.8% (95% CI 34.4% to 0.0) fewer cognitive impairments controlling for individual characteristics and the presence of a memory-related disease diagnosis. We found no association between access to an LGBTQ+ affirming provider and impairments to ADLs.

DISCUSSION

Access to an LGBTQ+ affirming provider is associated with timely and lifetime receipt of preventative care for several recommended screenings, better patient-reported management of

mental health conditions, and lower cognitive impairment among a sample of older LGBTQ+ adults in the U.S. South. We find that those who identify their primary care provider as LGBTQ+ affirming are more likely to have had a routine checkup in the last year, to have ever had a flu shot, and to have ever had a colorectal cancer screening compared to LGBTQ+ adults who have a usual source of care that is not affirming.

Notably, gay and bisexual men and transgender people with an affirming care provider are more likely to have ever had an HIV test and more likely to have had an HIV test in the last 3 years. These results help us better understand LGBTQ+ health disparities in the U.S. South, where more than half of new HIV infections in the U.S. occur and where HIV-positive people are more than 3 times more likely to die from the disease compared to the rest of the country.[51]

While we find no effect of having an LGBTQ+ affirming provider on lifetime or timely receipt of pap smear or mammogram screenings, this may be attributable to relatively high baseline rates of these preventive services, provider-based factors such as payment benchmarks for timely screening, and patient-based factors such as common awareness, longer lifetime risk exposure for pap smear, and acceptability of these services compared to HIV tests or colorectal cancer screening.[52–56]

LGBTQ+ patients go to great lengths to identify affirming providers.[27] This study indicates that patients who can access affirming providers enjoy health rewards. LGBTQ+ adults with a mental health condition are more likely to report that their mental health condition is under control when they also had an affirming provider. We also observe differences in levels of cognitive

impairment among LGBTQ+ adults by provider type, with higher levels of impairment among those with a nonaffirming provider, even after controlling for individual predictors of cognitive impairment including memory-related disease diagnoses. Although we only observe a cross-sectional association with just one wave of data collection complete, this result is concordant with theoretical work by Corerro and colleages[9] suggesting that increased minority stress in a care environment may exacerbate the effects of stress on multiple bodily systems and lead to greater cognitive decline.

More broadly, and across outcomes, affirming care environments may improve health outcomes for LGBTQ+ patients because they promote engagement and retention in care, more timely preventative screenings, trust in and uptake of provider recommendations, and higher quality patient-provider interactions leading to the identification/disclosure of new or developing problem areas. Affirming care may thus allow for earlier diagnoses, more open conversations about patient needs and concerns, more patient uptake of provider recommendations for condition management, and greater involvement of partners and caregivers. Finally, for populations who are hesitant or lack trust in their healthcare providers,[5,20] retention in care, measured here as having had a recent routine checkup from a usual source of care, is a major achievement.

Health systems, including institutions of medical, nursing, physician assistant, and pharmacy education, should prioritize LGBTQ+ inclusive practices to achieve health equity for aging LGBTQ+ populations. Formal continuing education offerings should expand opportunities to learn about LGBTQ+ identities, family structures, behaviors, and health needs beyond sexual

health and HIV. Providers should have robust understandings of health disparities across social identities and adopt best practices for LGBTQ+ inclusive and affirming healthcare systems and care environments. These changes will be a first step toward improving LGBTQ+ engagement with preventive services and health systems more broadly.

Longer-term, health systems can improve training and retention opportunities for LGBTQ+ health professionals by adopting explicit nondiscrimination policies and expanding fellowship and residency opportunities in LGBTQ+ health and medicine. Physician workforce diversity matters for patient outcomes and reducing health disparities. Multiple rigorous studies now demonstrate that having a gender- or race-match between doctors and patients reduces mortality and adverse outcomes in hospital settings, increases uptake of preventative care, and increases patient satisfaction.[57–61] While we do not expect that all LGBTQ+ patients would ultimately need or want to access an LGBTQ+ provider, LGBTQ+ health disparities may be improved by increasing residency and fellowship opportunities in LGBTQ+ medicine and for LGBTQ+ physicians, and by decreasing experiences of discrimination on the job that threaten retention of LGBTQ+ health professionals.[43]

CONCLUSION

Having an LGBTQ+ affirming provider versus a regular source of care that is not affirming is associated with greater uptake of preventive care, better patient-reported management of mental health conditions, and lower cognitive impairment among older LGBTQ+ adults in the U.S. South. To address LGBTQ+ health disparities and improve the aging experiences of LGBTQ+ adults, medical education and health care systems must expand formal and continuing education

opportunities around LGBTQ+ medicine and adopt best practices for LGBTQ+ inclusive care, including the adoption of nondiscrimination policies for employees.

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Table 1. Demographic Characteristics of the Sample					
	Access to LGBTQ+ Affirming Provider				
	No Access		Yes Access		
	No.	%	No.	%	p-value
Gender					<.001
Cis Man	211	51.1	406	57.3	
Cis Woman	185	44.8	234	33.1	
Trans/NB/GNC	17	4.1	68	9.6	
Total	413	100	708	100	
Race and Ethnicity					0.062
White	346	83.8	628	88.7	
Black	38	9.2	45	6.4	
Other POC	29	7	35	4.9	
Total	413	100	708	100	
Education					<.001
High school or less	26	6.3	26	3.7	
Some college, AA, Trade	110	26.6	140	19.8	
College degree	136	32.9	216	30.5	
Graduate/Professional d	133	32.2	316	44.6	
Other educ	8	1.9	10	1.4	
Total	413	100	708	100	
Family Income					<.001
<35k	100	24.2	119	16.8	
35-45k	29	7	45	6.4	
45-60k	57	13.8	71	10	
60-75k	48	11.6	87	12.3	
75-100k	66	16	92	13	
100-125k	48	11.6	96	13.6	
125k+	65	15.7	198	28	
Total	413	100	708	100	
State of Residency					0.002
Alabama	94	22.8	108	15.3	
North Carolina	97	23.5	225	31.8	
Tennessee	129	31.2	222	31.4	
Georgia	93	22.5	153	21.6	
Total	413	100	708	100	
Health Insurance					0.019
No	24	5.8	21	3	
Yes	389	94.2	687	97	
Total	413	100	708	100	
HIV Status					<.001

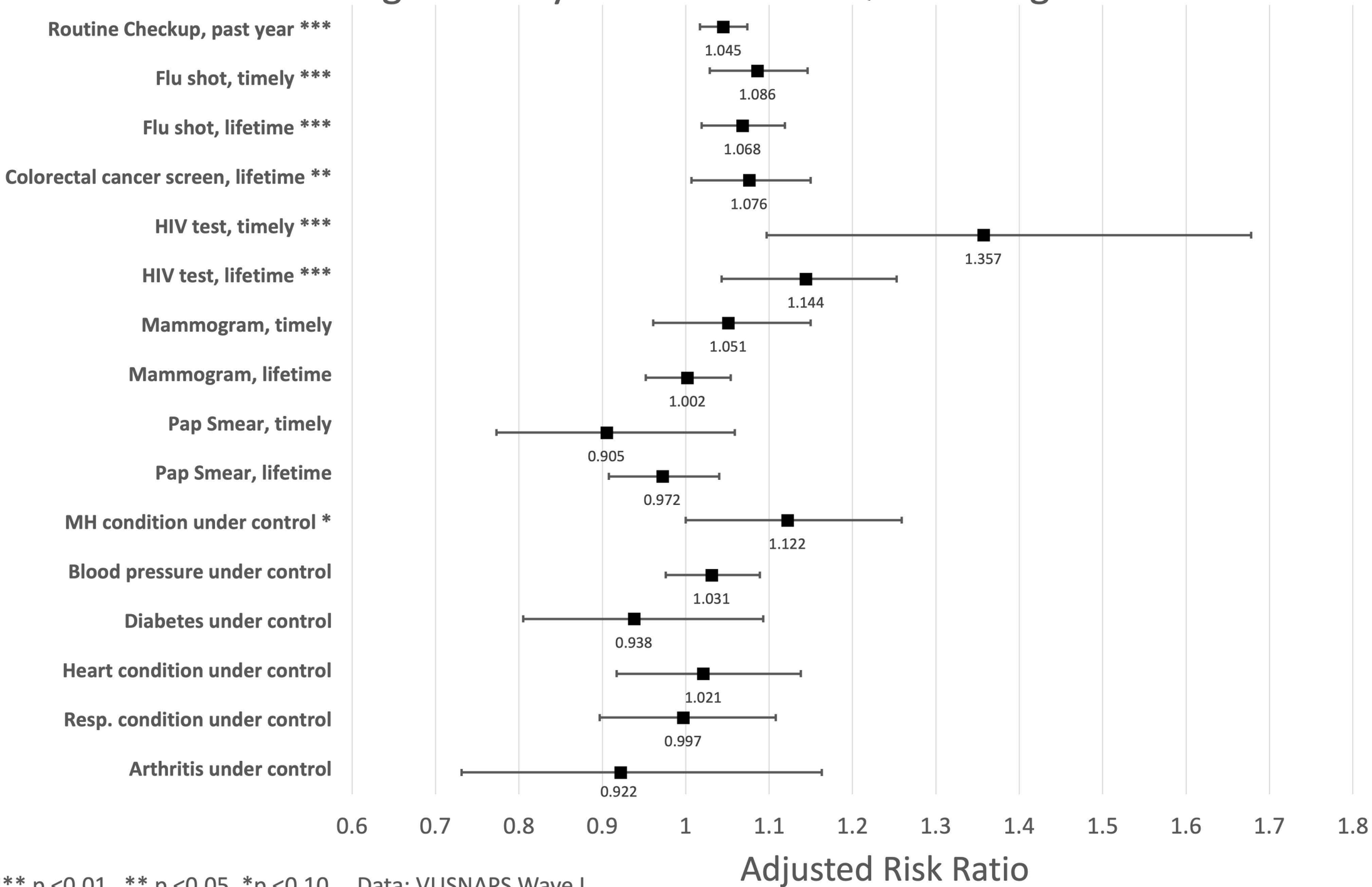
Negative/Don't Know	397	96.1	591	83.5	
Positive	16	3.9	117	16.5	
Total	413	100	708	100	
Any Chronic Condition					0.051
None	62	15	78	11	
1 or more	351	85	630	89	
Total	413	100	708	100	
Data come from Wave I VUSNAPS (R01-AG063771)					

Table 2. Preventive Care, Chronic Disease Management, and Aging Outcomes by access to LGBTQ+ Affirming Provider							
	No Access		Yes Access		aRR	95% CI	Sample Size
	No	%	No	%			
Preventive Care							
Routine Checkup	387	93.7	695	98.2	1.045***	[1.017,1.074]	1121
Flu shot, lifetime	348	84.3	652	92.1	1.068***	[1.019,1.119]	1121
Flu shot, timely	329	79.7	632	89.3	1.086***	[1.029,1.146]	1121
Colorectal, lifetime	305	73.8	580	81.9	1.076**	[1.007,1.150]	1121
HIV test, lifetime#	155	73.1	289	80.7	1.144***	[1.043,1.253]	570
HIV test, recent#	80	37.7	166	46.4	1.357***	[1.097,1.678]	570
Mammogram, lifetime~	180	93.3	248	93.2	1.002	[0.952,1.054]	459
Mammogram, timely~	153	79.3	221	83.1	1.051	[0.961,1.150]	459
Pap Smear, lifetime~	171	88.6	229	86.1	0.972	[0.908,1.040]	459
Pap Smear, timely~	118	61.1	151	56.8	0.905	[0.773,1.059]	459
Chronic Disease Management							
Mental health condition under control	127	65.5	260	77.4	1.122*	[1.000,1.259]	530
Blood pressure under control	204	89.5	347	93.3	1.031	[0.976,1.089]	600
Diabetes under control	72	75	103	73	0.938	[0.805,1.093]	237
Heart condition under control	66	90.4	79	86.8	1.021	[0.917,1.138]	164
Respiratory condition under control	87	82.9	124	88.6	0.997	[0.897,1.108]	245
Arthritis/rheumatism under control	69	50	100	50	0.922	[0.731,1.163]	338
Aging Outcomes^							
Level of Cognitive Decline	0	2	0	1	0.812*	[0.656,1.00]	1121
Impairments to Activites of Daily Living	0	1	0	1	0.896	[0.755,1.063]	1121

Data come from Wave I VUSNAPS (R01-AG063771) *p<0.1, ** p<0.05, *** p<0.01

aRR estimated via modified Poisson regression. All models adjusted for gender, race and ethnicity, age, educational attainment, state of residency, and health insurance status. # analysis conducted among pariticpants whose current gender identity is male, transgender/gender nonbinary. ~

Figure 1. Adjusted Risk Ratio for Preventive Care and Chronic Disease Management by Access to LGBTQ+ Affiming Provider



*** p <0.01 ** p <0.05. *p <0.10 Data: VUSNAPS Wave I