

Supplementary Online Content

Obedin-Maliver J, Goldsmith ES, Stewart L, et al. Lesbian, gay, bisexual, and transgender-related content in undergraduate medical education. *JAMA*. 2011;306(9):971-977.

eAppendix. Questionnaire for Deans of Medical Education

eTable 1. Characterization of questionnaire response rates by nation/degree type and institutional affiliation

eTable 2. Distribution of medical schools with zero versus more than zero hours dedicated to teaching LGBT content (n = 132)

eTable 3. Free-text responses regarding current or potential LGBT-related topics in the curriculum

eTable 4. Free-text responses regarding clinical clerkship sites to facilitate LGBT patient care

eFigure 1. Number of LGBT-related topics taught in the required and elective medical curriculum

eFigure 2. Percent of medical school administrators citing “too little coverage” of each of 16 LGBT-related topics at their institutions

This supplementary material has been provided by the authors to give readers additional information about their work.

eAppendix. Questionnaire for Deans of Medical Education

Welcome to the Lesbian, Gay, Bisexual, & Transgender Medical Education Assessment (LGBT-MEA)!

Thank you for your interest in this exciting research project designed to gather information that will help medical schools train health care professionals to provide excellent care to lesbian, gay, bisexual, & transgender (LGBT) individuals.

The Gay & Lesbian Medical Association (GLMA) and the American Medical Association (AMA) Advisory Committee on GLBT Issues have issued letters of support for the LGBT-MEA.

http://med.stanford.edu/lgbt/glma_letter.pdf

http://med.stanford.edu/lgbt/ama_letter.pdf

Please choose your institution type.

<input type="radio"/>	Allopathic (MD-granting) school in Canada
<input type="radio"/>	Allopathic (MD-granting) school in the United States
<input type="radio"/>	Osteopathic (DO-granting) school in the United States

Informed Consent

An informed consent detailing your rights as a research participant and our responsibilities to you as researchers is available here:

<http://med.stanford.edu/lgbt/lgbtmea/ic.html>

Thank you again for contributing your time to this important and exciting endeavor.

Please complete the following to electronically sign this informed consent:	
Please choose your institution: [drop-down box: all institutions of type specified in previous question]	
<input type="radio"/>	I certify that I have read the informed consent form. I understand my rights and responsibilities as well as those of the investigators as they have been presented here, and I affirm my wish to participate in this research study.
<input type="radio"/>	I do not wish to participate in this research study.

Instructions

This 13-question survey will ask you about the medical curriculum at your institution. It focuses on how your institution trains medical students to care for lesbian, gay, bisexual, & transgender (LGBT) individuals. This topic is difficult to teach and can be difficult to discuss. We appreciate your time and energy in helping us understand the range of educational practices across medical schools.

If you need to stop the survey, please click "Save Survey and Return Later". You will be prompted to enter your e-mail address, to which a personalized link will be sent for you to return at a later time. Note that the e-mail address you provide will not be available to the investigators (*i.e.*, your answers remain anonymous).

This survey is meant to be completed by a Dean of Medical Education (or equivalent). If someone is more suited to complete part or all of this survey, please

complete all that you can and pass the survey on. You can do this by clicking "Save Survey and Return Later," entering your e-mail address, and forwarding the return ticket to that person. Contact information for the survey administrators is available at the bottom of each page. Please feel free to contact us at any time if you have questions.

1. How many TOTAL hours are dedicated to teaching LGBT content during the following phases of training? (If your institution does not record content by number of hours, please estimate as accurately as possible.)	
<u>Required Pre-Clinical</u>	<u>Required Clinical</u>
[drop-down box: integers from 0-40, 41+, 'Don't know', and 'Decline to answer']	[drop-down box: integers from 0-40, 41+, 'Don't know', and 'Decline to answer']

2. Please complete the following statement: In the REQUIRED PRE-CLINICAL curriculum, LGBT-specific content is _____.
<input type="radio"/> interspersed throughout various parts of the curriculum.
<input type="radio"/> taught in discrete modules dedicated to LGBT content.
<input type="radio"/> not taught.
<input type="radio"/> Don't know
<input type="radio"/> Decline to answer

3. Does your institution have lectures or small-group sessions that include LGBT-specific content in the REQUIRED CLINICAL curriculum?
<input type="radio"/> Yes, in required curriculum
<input type="radio"/> Not in required curriculum
<input type="radio"/> Don't know
<input type="radio"/> Decline to answer

4. Is there a CLINICAL clerkship site that is specifically designed to facilitate LGBT patient care (e.g., rotations in LGBT-focused care centers)?
<input type="radio"/> Yes, meets requirement for a required clerkship
<input type="radio"/> Yes, available as an elective clerkship
<input type="radio"/> Yes, meets requirement for a required clerkship AND available as an elective clerkship
<input type="radio"/> No
<input type="radio"/> Don't know
<input type="radio"/> Decline to answer

Please tell us more about this clerkship site(s).
[free-text box]

5. Does your institution provide faculty development for teaching about LGBT health?	
<input type="radio"/>	Yes
<input type="radio"/>	No
<input type="radio"/>	Don't know
<input type="radio"/>	Decline to answer

6. When learning how to conduct a sexual history, are students at your institution taught to obtain information about same-sex relations, <i>e.g.</i> asking “do you have sex with men, women, or both?”	
<input type="radio"/>	Yes
<input type="radio"/>	No
<input type="radio"/>	Don't know
<input type="radio"/>	Decline to answer

7. Are medical students at your institution taught the difference between behavior and identity (<i>e.g.</i> , a man may have sex with other men and identify as straight)?	
<input type="radio"/>	Yes, part of the required curriculum
<input type="radio"/>	No
<input type="radio"/>	Don't know
<input type="radio"/>	Decline to answer

8. Does your institution provide education for students in the following content areas at any point in the curriculum? (Definitions to terms marked with an asterisk "*" appear after the answer choices.)					
	Yes, in REQUIRED curriculum	Available in ELECTIVE curriculum, NOT in REQUIRED curriculum	Not in curriculum	Don't know	Decline to answer
Barriers to accessing medical care for LGBT people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alcohol, tobacco, or other drug use among LGBT people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Safer sex for LGBT people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sexually transmitted infections (not HIV) in LGBT people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
HIV in LGBT people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Chronic disease risk for LGBT populations	<input type="radio"/>				
Sexual orientation*	<input type="radio"/>				
Coming out*	<input type="radio"/>				
Gender identity*	<input type="radio"/>				
Disorders of Sex Development (DSD)/Intersex*	<input type="radio"/>				
Transitioning* (e.g., male-to-female, female-to-male)	<input type="radio"/>				
Sex reassignment surgery* (SRS)	<input type="radio"/>				
LGBT adolescent health	<input type="radio"/>				
Mental health in LGBT people	<input type="radio"/>				
Body image in LGBT people	<input type="radio"/>				
Unhealthy relationships (e.g., intimate partner violence) among LGBT people	<input type="radio"/>				

For Question 8, please use the following definitions:

Sexual Orientation: An individual's self-identified state of physical and/or emotional attraction. "Heterosexual," "bisexual," and "homosexual" are all sexual orientations.

Coming Out: A process of disclosure of one's sexual orientation or gender identity to oneself and/or others.

Gender Identity: A person's deeply felt psychological identification as male, female, transgender, no gender, or another gender which may or may not correspond to the person's body or designated sex at birth.

Intersex: A general term used for a variety of conditions in which a person is born with reproductive or sexual anatomy that does not fit the typical definitions of female or male. This is also known as "disorders of sex development" (DSD). Though these terms are used by many, some consider them offensive and prefer such terms as "anatomic variation."

Transitioning: The process through which a person modifies physical characteristics and/or manner of gender expression to be consistent with gender identity. This process, also referred to as "gender affirmation," may include hormone therapy, sex reassignment surgery, and/or other components and is generally conducted under medical supervision based on a set of standards developed by medical professionals.

Sex Reassignment Surgery: The genital alteration surgery that transgender individuals sometimes undergo to change their physical bodies to match their gender identities. This was previously referred to as a "sex change operation." This process is also referred to as "sex affirmation treatment."

9. Please describe your opinion of how the following content areas are covered at your institution. (Definitions to terms marked with an asterisk "*" appear after the answer choices.)							
	Coverage not needed	Too little coverage	Basic coverage	In-depth coverage	Too much coverage	Don't know	Decline to answer
Barriers to accessing medical care for LGBT people	<input type="radio"/>						
Alcohol, tobacco, or other drug use among LGBT people	<input type="radio"/>						
Safer sex for LGBT people	<input type="radio"/>						
Sexually transmitted infections (not HIV) in LGBT people	<input type="radio"/>						
HIV in LGBT people	<input type="radio"/>						
Chronic disease risk for LGBT populations	<input type="radio"/>						
Sexual orientation*	<input type="radio"/>						
Coming out*	<input type="radio"/>						
Gender identity*	<input type="radio"/>						
Disorders of Sex Development (DSD)/Intersex*	<input type="radio"/>						
Transitioning* (e.g., male-to-female, female-to-male)	<input type="radio"/>						
Sex reassignment surgery* (SRS)	<input type="radio"/>						
LGBT adolescent health	<input type="radio"/>						
Mental health in LGBT people	<input type="radio"/>						
Body image in LGBT people	<input type="radio"/>						
Unhealthy relationships (e.g., intimate partner violence) among LGBT people	<input type="radio"/>						

For Question 9, please use the following definitions:

Sexual Orientation: An individual's self-identified state of physical and/or emotional attraction. "Heterosexual," "bisexual," and "homosexual" are all sexual orientations.

Coming Out: A process of disclosure of one's sexual orientation or gender identity to oneself and/or others.

Gender Identity: A person's deeply felt psychological identification as male, female, transgender, no gender, or another gender which may or may not correspond to the person's body or designated sex at birth.

Intersex: A general term used for a variety of conditions in which a person is born with reproductive or sexual anatomy that does not fit the typical definitions of female or male. This is also known as "disorders of sex development" (DSD). Though these terms are used by many, some consider them offensive and prefer such terms as "anatomic variation."

Transitioning: The process through which a person modifies physical characteristics and/or manner of gender expression to be consistent with gender identity. This process, also referred to as "gender affirmation," may include hormone therapy, sex reassignment surgery, and/or other components and is generally conducted under medical supervision based on a set of standards developed by medical professionals.

Sex Reassignment Surgery: The genital alteration surgery that transgender individuals sometimes undergo to change their physical bodies to match their gender identities. This was previously referred to as a "sex change operation." This process is also referred to as "sex affirmation treatment."

10. The items in the previous question may not comprise a complete list of LGBT health topics. Other topics may include LGBT geriatric care, reproductive health in LGBT people, and using LGBT people as research subjects.

Please describe your opinion on the coverage of LGBT content, on the whole, at your institution.

- Very good
- Good
- Fair
- Poor
- Very Poor
- Don't know
- Decline to answer

11. Please list other LGBT-related topics that your institution provides or would like to provide.

[free-text box]

12. What method(s) does your institution use to evaluate the efficacy of teaching LGBT-specific content to students? (Please check all that apply.)

- Written examination
- Faculty-observed patient interactions
- Peer-to-peer evaluations
- Evaluation by standardized patients (patient actors)
- Evaluation by patients

<input type="checkbox"/> Does not evaluate
<input type="checkbox"/> Decline to answer
<input type="checkbox"/> Other [free-text box]

13. What strategies do you think are or would be successful in increasing LGBT-specific content at your institution? (Please check all that apply.)
<input type="checkbox"/> Curricular material focusing on LGBT-related health/health disparities
<input type="checkbox"/> Faculty willing and able to teach LGBT-related curricular content
<input type="checkbox"/> Increased financial resources
<input type="checkbox"/> Logistical support for teaching LGBT-related curricular content
<input type="checkbox"/> More time in the curriculum to be able to teach LGBT-related content
<input type="checkbox"/> More evidence-based research regarding LGBT health/health disparities
<input type="checkbox"/> Curricular material coverage required by accreditation bodies
<input type="checkbox"/> Questions based on LGBT health/health disparities on national examinations (<i>e.g.</i> , USMLE)
<input type="checkbox"/> Methods to evaluate LGBT curricular content
<input type="checkbox"/> Don't know
<input type="checkbox"/> Decline to answer
<input type="checkbox"/> Other [free-text box]

eTable 1. Characterization of questionnaire response rates by nation/degree type and institutional affiliation

Survey Status (AAPOR Code)	Overall	Canada Allopathic	All U.S.	U.S. Allopathic	U.S. Osteopathic	All U.S. Schools	
						Private	Public
Complete (1.1)	132 (75.0%)	11 (64.7%)	121 (76.1%)	102 (77.9%)	19 (67.9%)	52 (68.4%)	69 (83.1%)
Incomplete with Sufficient Information (1.2)	5 (2.8%)	0 (0.0%)	5 (3.1%)	5 (3.8%)	0 (0.0%)	0 (0.0%)	5 (6.0%)
Incomplete with Insufficient Information (2.1)	5 (2.8%)	1 (5.9%)	4 (2.5%)	4 (3.1%)	0 (0.0%)	2 (2.6%)	2 (2.4%)
Explicit Refusal (2.11)	1 (0.6%)	0 (0.0%)	1 (0.6%)	1 (0.8%)	0 (0.0%)	1 (1.3%)	0 (0.0%)
Implicit Refusal (2.12)	7 (4.0%)	0 (0.0%)	7 (4.4%)	7 (5.3%)	0 (0.0%)	5 (6.6%)	2 (2.4%)
Nothing Ever Returned (3.19)	26 (14.8%)	5 (29.4%)	21 (13.2%)	12 (9.1%)	9 (32.1%)	16 (21.2%)	5 (6.0%)
Total	176 (100%)	17 (100%)	159 (100%)	131 (100%)	28 (100%)	76 (100%)	83 (100%)

AAPOR Code 1.1: Fully answered questionnaire

AAPOR Code 1.2: Incomplete questionnaires that answered the primary outcome question (*i.e.*, reported number of pre-clinical and clinical hours)

AAPOR Code 2.1: Incomplete questionnaires that did not answer the primary outcome question (*i.e.*, reported number of pre-clinical and clinical hours)

AAPOR Code 2.11: Refused informed consent

AAPOR Code 2.12: Accessed questionnaire but did not answer any questions

eTable 2. Distribution of medical schools with zero versus more than zero hours dedicated to teaching LGBT content (n = 132)

Type of Teaching*	0 Hours n (%)	>0 Hours n (%)	P-value
Pre-Clinical	9 (6.8)	120 (90.9)	<0.0001
Clinical	44 (33.3)	74 (56.1)	
Combined	5 (3.8)	113 (85.6)	
<u>Clinical Hours Only by Category</u>			
School Categories	0 Hours n (%)	>0 Hours n (%)	P-value
Canada (n = 11)	6 (54.5)	4 (36.4)	0.0012
U.S. Osteopathic (n = 19)	12 (63.2)	5 (26.3)	
U.S. Allopathic (n = 102)	26 (25.5)	65 (63.7)	
U.S. Private (n = 52)	20 (38.5)	25 (48.1)	0.10
U.S. Public (n = 69)	18 (26.1)	45 (65.2)	

*Note: Percentages may not add to 100% because “don’t know” responses for either pre-clinical (n = 3) or clinical (n = 14) hours were removed from hours-related statistical analyses.

eTable 3. Free-text responses regarding current or potential LGBT-related topics in the curriculum

Ambiguous genitalia
Discrimination against LGBT people
Homophobic faculty members
Interviewing LGBT patients
LGBT care in rural/small communities
LGBT cultural diversity
LGBT health professionals
LGBT inclusive forms/language
LGBT reproductive health (<i>e.g.</i> , parenting, adoption, IVF)
Sexual function in LGBT people (normal and dysfunction)
Social stigma against LGBT people

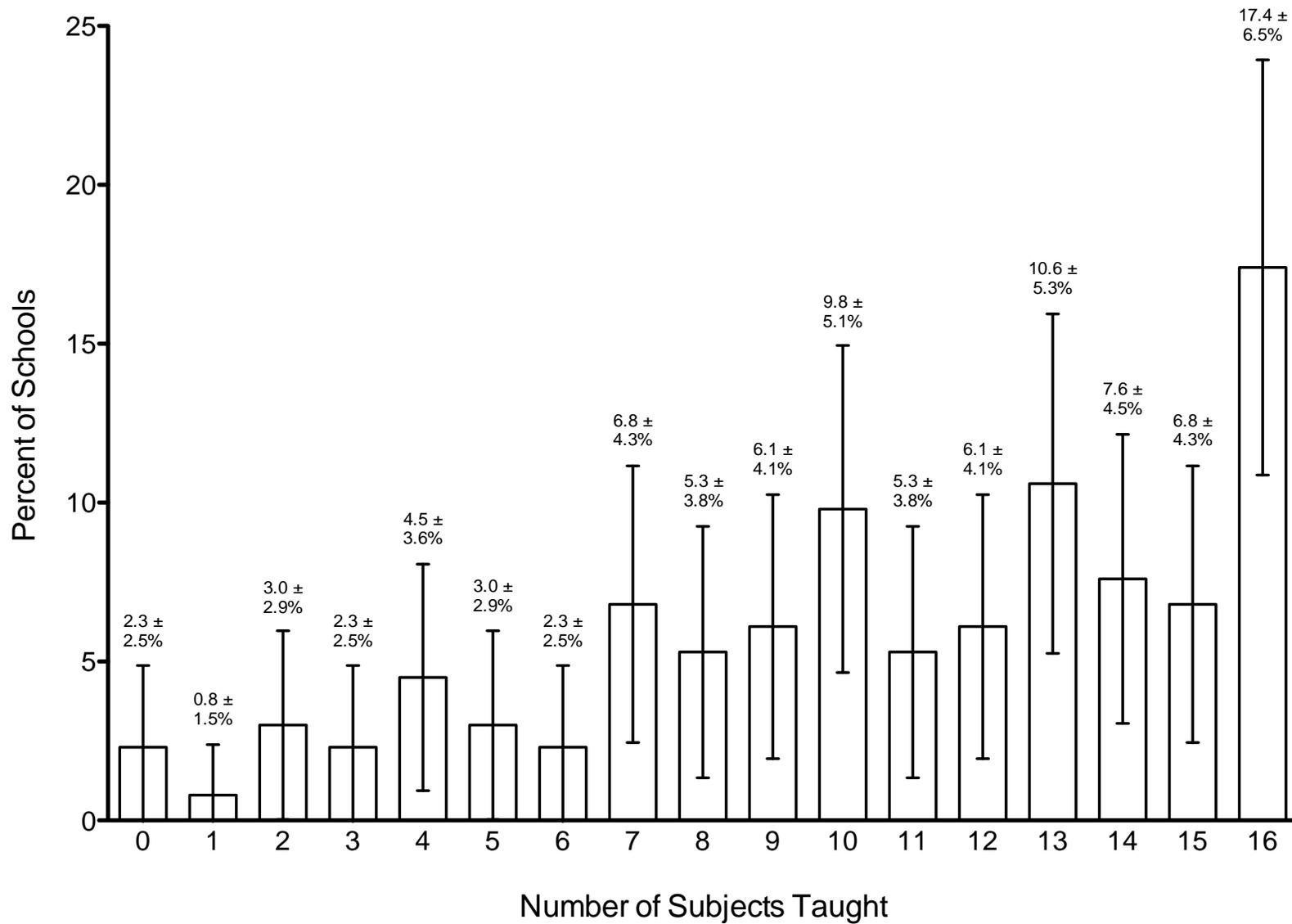
Responses from Question #11: "Please list other LGBT-related topics that your institution provides or would like to provide."

eTable 4. Free-text responses regarding clinical clerkship sites to facilitate LGBT patient care

Health care van
HIV/AIDS clinic
Infectious diseases in the LGBT community
LGBT community health center
LGBT federal qualified health center
LGBT topics in family medicine clerkship
LGBT topics in obstetrics and gynecology clerkship
LGBT topics in psychiatry clerkship
Transgender clinic

Responses from a free-text area in Question #4: “Please tell us more about this clerkship site(s).“

eFigure 1. Number of LGBT-related topics taught in the required and elective medical curriculum. n = 132. Histogram of percentage of schools teaching 0 through 16 LGBT-related topics in the required and elective curricula. Error bars represent 95% CI.



eFigure 2. Percent of medical school administrators citing “too little coverage” of each of 16 LGBT-related topics at their institutions. n = 132. HIV indicates human immunodeficiency virus; STI indicates sexually-transmitted infections; DSD indicates disorders of sex development; IPV indicates intimate partner violence; and SRS indicates sex reassignment surgery. Error bars represent 95% CI.

