Comparing Ways to Ask Patients about Sexual Orientation and Gender Identity in the Emergency Room—The EQUALITY Study

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Abstract

**Background:** Lack of data on sexual orientation and gender identity (SO/GI) is a major challenge to understanding and addressing sexual and gender minority (SGM) health disparities. National organizations recommend routine collection of SO/GI information in electronic health records to help identify and address these health disparities. In the United States, there are nearly 130 million emergency department (ED) visits every year. Despite the importance of SO/GI for providing high-quality, patient-centered care and the opportunity to collect a high volume of SO/GI information for SGM disparities research, routine collection of SO/GI in the ED setting is rare, and optimal patient-centered approaches remain unclear.

**Objectives:** The overall aim of this sequential mixed methods study was to develop and evaluate the comparative effectiveness of patient-centered approaches for collecting SO/GI in the ED setting. The specific aims were to (1) gather qualitative input on perceived facilitators, barriers, and preferred approaches for collecting SO/GI in the ED setting; (2) develop and prioritize patient-centered approaches for collecting SO/GI; and (3) evaluate the comparative effectiveness of 2 patient-centered approaches, identified in aim 2, for collecting SO/GI in the ED setting.

**Methods:** The Emergency Department Query for Patient-Centered Approaches to Sexual Orientation and Gender Identity Study utilized a multiphase mixed methods design. Phase 1 consisted of qualitative and quantitative data collection. This included in-depth interviews with a purposive sample of patients and ED providers from one major city in the Mid-Atlantic United States and a nationally representative phone survey of patients, ED physicians, and nurses, to identify facilitators, barriers, and preferred methods to collect SO/GI in the ED. Phase 2 utilized data from phase 1 in modified Delphi rounds that resulted in stakeholder advisory board (SAB) members identifying 2 methods of SO/GI collection to implement in a trial. In phase 3, we sequentially implemented and evaluated 2 methods of SO/GI collection—verbal collection by nurses (mode 1) and nonverbal self-report during registration (mode 2)—in 4 hospital EDs in the Northeast and Mid-Atlantic United States. We assessed ED patient satisfaction and comfort using average modified Communication Climate Assessment Toolkit Questionnaire (CCAT)
scores as advised by our SAB. We invited all eligible patients to complete outcome surveys. We calculated primary and secondary outcome results using analysis of variance (ANOVA) or chi-square tests between modes for each patient match group. We used multivariable ordered logistic regression to examine whether intervention mode was associated with modified CCAT scores after controlling for potential confounding variables: age, race, illness severity, and hospital site.

**Results:** In phase 1, a total of 53 patients and 38 physicians, nurses, and registrars participated in qualitative interviews. Interviews revealed that, although patients believed SO/GI was important in all clinical circumstances, clinicians thought SO/GI was rarely important. The online survey confirmed these findings on the national level. In total, 1617 patients (244 lesbian, 289 gay, 179 bisexual, 101 transgender, and 804 heterosexual and cisgender) and 429 providers (209 physicians, 220 nurses) completed the national survey. Among patients, only 10.1% refused to provide SO, whereas 77.8% of clinicians believed patients would refuse to provide SO. Similarly, only 7.4% of patients refused to provide GI, whereas 73.4% of clinicians believed patients would refuse to provide GI.

In phase 2, SAB members used findings from phase 1 to identify 2 methods to collect SO/GI information and test in an interventional study: verbal collection by nurses during patient assessment (mode 1) vs nonverbal self-report during patient registration (mode 2). SAB members highlighted the importance of staff education and training, provided important direction for trial implementation, and approved the outcome measures used in phase 3 below.

In phase 3, CCAT scores (on a scale of 0-100) during mode 1 were 89.5 (SD 20.5; 95% CI, 85.7-93.3), 91.8 (SD 18.9; 95% CI, 88.3-95.3), and 92.7 (SD 15.9; 95% CI, 89.8-95.7) for SGM, non-SGM, and Blank Field patients (those who did not list SO/GI information), respectively. During mode 2, average modified CCAT scores were 95.6 (SD 11.9; 95% CI, 92.7-98.5; \( P < .05 \)), 93.2 (SD 13.6; 95% CI, 89.9-96.5; \( P = .591 \)), and 93.6 (SD 14.7; 95% CI, 90.0-97.2; \( P = .703 \)) among SGM, non-SGM, and Blank Field patients. Modified CCAT scores were significantly higher among SGM patients only. The SAB was involved in analyzing these results and provided guidance on their interpretation and communication.
**Conclusions**: The vast majority of patients are willing to provide SO/GI in the ED. Patients report higher satisfaction and comfort with ED encounters when SO/GI is collected along with other demographic information via a nonverbal, written method during patient registration. Our results highlight the importance of patient-centered approaches to training, technical assistance, and implementation for effectively integrating SO/GI information collection in ED settings.
Background

Sexual and gender minority (SGM) populations face significant disparities in access to health care and outcomes. Recent estimates indicate that 3.5% of Americans identify as sexual minorities\(^1\) and 0.6% of Americans identify as transgender.\(^2\) SGM is an umbrella term; each group is distinct with specific health care needs.\(^3\) Many SGM individuals are part of other communities facing disparities related to race, ethnicity, and socioeconomic status, and may be vulnerable to the cumulative negative health impact of these factors.\(^4\)

SGM populations experience significant health disparities that are inextricably linked to social stigma and discrimination, including higher risk of all-cause mortality, cardiovascular and immune conditions, depression, suicide, substance abuse, and HIV.\(^5\)\textendash\(^10\) Gay men, particularly within communities of color, have a higher risk of HIV and other STDs.\(^11\) Lesbians and bisexual women are more likely to be overweight or obese,\(^12\) and lesbians are less likely to receive preventive services for cancer.\(^13\) Transgender individuals arguably experience the most acute health care access and outcomes disparities. Current research indicates that transgender individuals are at greater risk for physical victimization, substance abuse, and attempted suicide.\(^14\)\textendash\(^15\) According to one systematic review, transgender people experience a high prevalence of HIV and other sexually transmitted diseases.\(^16\) The overwhelming array of health disparities experienced by the SGM community, compounded by the lack of available data, recently led the US Department of Health and Human Services to identify SGM individuals as a target group for improvement in Healthy People 2020 and prioritize the need to identify appropriate data collection systems for SGM health.\(^17\)

Stigma and discrimination are fundamental causes of SGM health disparities.\(^18\)\textendash\(^20\) Unfortunately, social stigma and discrimination against SGM individuals extend into the health care system. Many SGM patients report that negative past experiences with their health care providers or fear of provider homophobia lead them to delay seeking care even when they are ill or injured.\(^21\)\textendash\(^22\) In 2009, the report *When Health Care Isn’t Caring: Lambda Legal’s Survey on Discrimination Against SGM People and People Living With HIV* published findings from a survey of 4916 people representing SGM communities and people living with HIV that indicated
disturbingly high levels of discrimination and substandard health care. More than half of all respondents reported experiencing at least one of the following instances of discrimination in care: being refused needed health care; having a health care provider who refused to touch them or used excessive precautions; experiencing harsh or abusive language from the health care provider; or experiencing physically rough or abusive treatment from the health care provider. The report also found that 51.9% of transgender and 9.1% of lesbian, gay, and bisexual (LGB) respondents feared they would be refused medical service. Nearly 75% of transgender and 28.5% of LGB respondents were concerned that health care providers would treat them differently than non-SGM people. Another study of 427 SGM physicians found that 65% had heard derogatory comments about SGM individuals and 34% had witnessed discriminatory care of an SGM patient. A review of literature on nurses’ attitudes toward SGM patients showed evidence of negative attitudes in all 17 included articles. The high prevalence of stigma and discrimination in the health care setting highlights the importance of promoting high-quality, patient-centered care for SGM patients and addressing SGM health care disparities.

Lack of data on sexual orientation and gender identity (SO/GI) is a major challenge to understanding and addressing SGM health disparities. Furthermore, health care providers need to know a patient’s SO/GI information as it may be clinically relevant. For example, a female-to-male transgender patient who presents to the emergency department (ED) with pelvic pain and does not disclose his gender identity—and, most importantly, is not asked—is in danger of receiving poorer-quality or delayed health care simply due to his providers’ lack of awareness.

EDs are the source of nearly half of inpatient admissions in the United States and the primary point of entry for uninsured and underinsured patients. In the United States, there are nearly 130 million ED visits every year. Few hospital EDs routinely collect sexual orientation or gender identity information; however, the potential impact of routinely collecting SO/GI information in the ED is tremendous given the high volume of patients. In the Human Rights Campaign’s study of health care facilities that use the Healthcare Equality
Index online survey to measure themselves against the established criteria for SGM patient-centered care, only 26% of facilities recorded sexual orientation in print or in the electronic health record (EHR). Health care institutions may not routinely ask for SO/GI information, to avoid potential discomfort among providers and patients. Although there are significant challenges to asking SO/GI information in a patient-centered, inclusive, and sensitive way, the failure to inclusively and sensitively address SO/GI information in the hospital emergency setting effectively creates conditions for a kind of invisibility among SGM individuals—both within the examining room and within health outcomes data. In essence, much of the American health care system is operating under a “Don’t Ask, Don’t Tell” policy, with many health care providers assuming that patients are heterosexual. Without a safe and “normalized” way to disclose SO/GI information, many patients are put in the uncomfortable position of either voluntarily disclosing their SO/GI information while wondering if the lack of routine collection is a sign of institutional stigma, or alternatively, remaining silent.

Efforts to routinely collect patient SO/GI information have been concentrated in the primary health care setting, particularly within medical centers that are known to be SGM-friendly. Since 2016, the Health Resources and Services Administration (HRSA) Bureau of Primary Care has required federally qualified health centers to report on patients’ SO/GI. Efforts at University of California, Davis (UC Davis), one of the first US academic health centers to formally introduce patient SO/GI demographic data into its EHR, provide a framework for overcoming initial resistance and engaging patients and providers in health systems change. While many primary health care patients may elect to go to SGM-friendly facilities or providers whom they trust and confide in, ED patients typically have little choice over which hospital or provider treats them. In the absence of choice of the hospital or provider giving care, patients still deserve to receive high-quality, patient-centered, and inclusive care. There are currently no recommendations or methods standards to collect SO/GI data in EDs. Despite the importance of SO/GI collection for providing high-quality, patient-centered care and the opportunity to collect a high volume of SO/GI information for SGM disparities research, routine collection of SO/GI in the ED setting is rare and the optimal patient-centered approaches for collecting this information remain unclear.
Given the importance of sexual orientation to population health and clinical care, the objectives of this study were to (1) gather qualitative input on perceived facilitators, barriers, and preferred approaches to collecting SO/GI in the ED setting; (2) develop and prioritize patient-centered approaches for collecting SO/GI; and (3) evaluate the comparative effectiveness of patient-centered approaches for collecting SO/GI in the ED setting.

**Patient and Stakeholder Involvement**

Prior to submitting the funding proposal to PCORI, our team conducted preliminary work to gather input from patients and health care providers on perceived barriers, facilitators, and preferred approaches to collecting SO/GI information. We distributed a standardized survey to 47 SGM students, staff, and faculty of the Johns Hopkins Medical Institutions, and 22 members of the Johns Hopkins Patient- and Family-centered Care Council, which comprises current or former patients and their caregivers from all medical departments as well as faculty and staff at Johns Hopkins Hospital. This preliminary work revealed that most patients and clinicians agree it is important for health care providers to have information on patients’ SO and GI. Additionally, patients reported they would feel most comfortable providing SO/GI information via a written or electronic form or answering SO/GI questions verbally to a physician or nurse.

To develop the stakeholder advisory board (SAB), we first conducted a comprehensive search of major SGM health and advocacy organizations, including Fenway Health, the Gay and Lesbian Medical Association, and Services and Advocacy for GLBT Elders. Consulting with representatives from these organizations who joined the SAB, we continued to identify board members who had a wide range of expertise. Our efforts resulted in a 25-member SAB comprising patients, patient advocates, clinicians, health care administrators, and directors of some of the most influential national and local SGM advocacy organizations. Patients composed 28% of the SAB. To learn more about best practices for SO/GI information collection, we included a representative from UC Davis, one of the first academic medical centers in the country to implement SO/GI collection throughout its system. The SAB was designed to incorporate views from patient, provider, hospital, and policy perspectives.
SAB members provided extensive feedback and guidance during the development of the grant application, and the core investigative team continued to work closely with the SAB to monitor and evaluate study conduct. SAB meetings occurred quarterly, during which study plans, measures, instruments, and results were presented to gain feedback from SAB members.

In phase 1, SAB meetings were held in person and via teleconference. During phase 1, SAB members provided feedback on the qualitative interview guides and the national survey drafts; we used that feedback to revise the guides and surveys. SAB members also provided insights into the qualitative and quantitative interview results and commented on the impact of the results within the wider political and health care climate in the United States. Insights from the SAB were integral to understanding the balance among identifying a “best” method, patient-centered methods, and methods that are feasible in the ED.

During phase 2, SAB members participated in modified Delphi rounds, as described in the Methods: Phase 2 section, to identify the preferred methods of SO/GI collection to test. Contact between participants is discouraged during Delphi rounds, so we suspended SAB meetings during this time. Instead, SAB members completed online surveys that required members to prioritize phase 3 study methods and provide open-ended feedback. Two Delphi rounds were completed, and SAB member consensus was reached at the end of the second round. The Delphi rounds resulted in the identification of the phase 3 comparators: SO/GI collection via nurse verbal collection vs SO/GI collection via registrar written collection.

In phase 3, SAB members resumed quarterly in-person and teleconference meetings, providing feedback on ED staff training curricula and participating in staff education efforts. SAB members also gave insight into preliminary phase 3 results and suggested actionable steps for the study team to tackle implementation challenges. Finally, SAB members helped develop dissemination and implementation plans.

In addition to the SAB, we included a patient coinvestigator on our study team. As a coinvestigator, they represented the perspective of an LGBT (lesbian, gay, bisexual, and transgender) patient who had received emergency department care and they helped to recruit LGBT patients for in-depth qualitative interviews. The core investigative team also included experts in disparities and outcomes research, qualitative research methodology, epidemiology,
and emergency medicine. Further details on study team and SAB members can be found in Appendix 1.
Methods

Overall Study Design

The purpose of the Emergency Department Query for Patient-centered Approaches to Sexual Orientation and Gender Identity (EQUALITY) Study was to identify the optimal patient-centered method to collect sexual orientation and gender identity in the emergency department. We chose a mixed methods design because of the rich body of data that mixed methods studies produce, allowing us to identify and understand patient-centered methods for SO/GI collection. An overview of our study design is provided below, followed by an in-depth explanation of each phase.

Phase 1

In phase 1, we gathered qualitative input on perceived facilitators, barriers, and preferred approaches for collecting SO/GI in the ED setting. To do this, we explored themes about SO/GI collection among SGM and heterosexual, cisgender (identifying with the same gender as assigned at birth) patients and providers utilizing semistructured, in-depth interviews. We then utilized the findings from these interviews to develop and disseminate a nationwide survey for SGM and heterosexual, cisgender patients and providers.

Phase 2

In this phase, we developed and prioritized patient-centered approaches for collecting SO/GI information. SAB members participated in a consensus-building protocol to identify patient-centered methods of SO/GI collection.

Phase 3

Phase 3 aimed to evaluate the comparative effectiveness of patient-centered approaches for collecting SO/GI in the ED setting. The SO/GI collection methods identified in phase 2 were implemented in the participating EDs. A diagram of the EQUALITY Study design can be found in Figure 1.
Phase 1: Setting and Design

Phase 1 of the EQUALITY Study utilized an exploratory sequential mixed methods design. In the first qualitative portion, we conducted in-depth interviews with a sample of patients and ED providers to identify themes regarding perceived facilitators, barriers, and preferred approaches for collecting SO/GI in the ED setting. The results from the qualitative portion informed the development of the second, quantitative portion of phase 1, in which we conducted a national survey of patients and ED providers. SAB members also decided to exclude the original transgender sample from the national surveys, because more than 90% of participants from the initial national survey sample no longer qualified as transgender after cross-validation with a 2-question prompt of sex assigned at birth and current GI. We conducted a second national survey to obtain data from an accurate transgender sample.
Phase 1: Interview Participants
We recruited a purposive sample of participants for semistructured, in-depth, one-on-one interviews. We used community outreach, flyers, and social media in Baltimore to recruit patient participants with experience seeking emergency medical care. Individuals aged 18 and older who were willing and able to provide informed consent were eligible for study inclusion. Patients contacted the researchers, who completed a telephone screen; screening criteria included questions about age, race, ethnicity, sexual orientation, gender identity, and sex assigned at birth. Interview recruitment was designed to ensure approximately equal participation of participants who identified as lesbian, gay, bisexual, and heterosexual, with variation in age and race/ethnicity within each stratum.

We recruited ED provider participants, including physicians, nurses, and advanced practice providers, from 3 community and 2 academic medical centers. Provider participants were eligible for inclusion if they were aged 18 or older, currently employed at a Johns Hopkins Hospital campus, and willing and able to provide written informed consent. We designed interview recruitment to ensure that a variety of staff roles within the ED setting, as well as diversity across age and race/ethnicity, were included.

Phase 1: Qualitative Data Collection
Qualitative interviews took place between July and September 2014. One of 2 researchers conducted all interviews in person in a private location. The researchers informed all participants that the purpose of the research was to understand the risks, benefits, and preferred approaches to collecting SO/GI information in the ED. Informed consent was obtained prior to beginning the interviews, which were tape recorded. Interviews lasted between 30 minutes and 2 hours, with most interviews lasting approximately 1 hour. Interviewers wrote summaries after each interview. Audio data were deidentified and transcribed verbatim prior to analysis. Interview guides can be found in Appendix 2.

Phase 1: Qualitative Data Analysis
We first used open coding to develop a codebook. Two researchers independently coded the data using the constant comparative method, a commonly used method for qualitative analysis.
that is frequently used as part of grounded theory, which can be especially helpful for analyses with minimal a priori theory. The researchers utilized an iterative coding process to identify themes, and they examined those themes for similarities and differences across participants, with attention to sample diversity. The coding schemes for patients and providers emerged from the data, so they differed slightly but did have similar themes and structure. Transcribed interviews were entered into Atlas.ti (https://atlasti.com/) for data management. We ensured consistency by double coding every fifth interview, and coders met regularly with senior staff. Having 2 analysts and a planned communication structure richened the process and created a mechanism for dialogue, with the aim of identifying areas of inconsistency or external influences. Data were summarized within and across themes and shared with the SAB for feedback and further insight.

Phase 1: Survey Participants
Researchers used Gesellschaft für Konsumforschung (GfK), an international market research firm, to conduct national surveys of patients and providers. Researchers recruited patient survey participants through GfK’s KnowledgePanel, and they recruited provider survey participants through GfK’s Physician Consulting Network. The GfK Knowledge Panel is the largest probability-based survey panel in the United States and has been used for research on numerous public health–related topics. GfK recruits members for its KnowledgePanel using random digit dialing and address-based sampling techniques to ensure inclusion of households with landlines, cell phone–only households, and households both with and without internet access. Participants were eligible if they were aged 18 or older, lived in the United States, and consented to participate in the survey. Surveys took place between March and April 2015.

Phase 1: Quantitative Data Collection
Based on qualitative data collected during the in-depth interviews, we developed 2 new comprehensive, English-language surveys for this study in collaboration with our stakeholder advisory board. Because the EQUALITY Study is the first interventional trial to investigate SO/GI information collection in the ED, a novel setting, our SAB advised us to use new measures. We designed survey measures to solicit information on the importance of SO/GI collection; barriers,
facilitators, risks, and benefits to SO/GI collection; willingness to disclose and collect SO/GI information; and preferred methods to disclose and collect SO/GI. Survey items were multiple choice, Likert scale, or open ended. All survey items were pilot tested with students and faculty from the Johns Hopkins Bloomberg School of Public Health prior to beginning quantitative data collection and have not yet undergone psychometric testing. Surveys can be found in Appendix 3.

Phase 1: Quantitative Data Analysis
We calculated descriptive statistics of survey items. We used chi-square tests to determine differences in views of routine collection of sexual orientation between straight and lesbian, gay, and bisexual patients. We calculated the odds of refusing to provide SO using stepwise logistic regression; the primary independent variable was SO and covariates included sex, SO, age, educational level, race, marital status, rental status, head of household, work status, and income. We conducted all analyses using Stata Version 13 (Stata Statistical Software: Release 13. College Station, TX; 2013).41 Phase 1 results are detailed in Results: Phase 1: Quantitative Results.

Phase 2: Setting and Design
Phase 2 of the EQUALITY Study consisted of modified Delphi rounds to determine 2 optimal patient-centered approaches for SO/GI information collection in the ED. The Delphi process is a structured, consensus-building technique in which a panel of experts answers questionnaires in multiple rounds. Developed by the RAND Corporation during the Cold War to identify and prioritize strategic targets for launching nuclear weapons, the Delphi method is now widely used in health care research to set priorities and gain consensus.42,43 We utilized a modified Delphi assessment to prioritize patient-centered approaches for collecting SO/GI information to be tested and to finalize how they will be evaluated.

Phase 2: Modified Delphi Rounds Participants
Members of the stakeholder advisory board participated in the modified Delphi rounds. Processes were standardized across SAB members regardless of profession.
Phase 2: Modified Delphi Rounds Data Collection and Analysis

Each questionnaire used multiple-choice questions with additional free response options (Appendix 4). We developed questionnaire language to reflect findings from phase 1 qualitative and quantitative interviews and surveys. Requested input included participants’ ratings about who should collect SO/GI information in the ED, what question phrasings were most and least preferred overall, and proportions of participants who were comfortable with SO/GI information being included in their medical record. We defined consensus as agreement by at least 75% of the SAB.

Delphi Round 1, Identification of Content: We used results from previous phases of the study to develop a list of the preferred methods and modes for collecting SO/GI information. We developed a list of options for the potential methods of inclusion of SO/GI information in the medical record. SAB members reviewed these lists and added options that they considered to be high priority. Stakeholder responses were compiled and sent for prioritization in subsequent rounds.

Delphi Round 2, Prioritization of Content: We sent SAB members the compiled list of identified roles of questioners, phrasing of questions, and modes of collection developed in round 1. Each stakeholder selected the highest-priority role of the person collecting information and the highest-priority mode for collection. Each stakeholder also selected the 2 highest-priority phrasing of questions. If consensus was not achieved in the first round of prioritization, we sent the compiled responses back to the stakeholders to review and reprioritize, to build consensus. We repeated this process until at least 2 high-priority roles, 2 high-priority modes, and 2 to 3 high-priority questions were identified.

Phase 2 results are detailed in Results: Phase 2: Modified Delphi Rounds Results.

Phase 3: Setting and Design

After the modified Delphi rounds were completed, we identified and compared 2 questioners and 2 modes of collection via a multisite trial. Four hospital emergency departments in Boston, Massachusetts, and Baltimore, Maryland (2 academic hospitals and 2 community hospitals),
participated in phase 3 of the study. As per the SAB’s recommendations, ED staff at each location received training prior to mode 1 and mode 2 implementation of SO/GI information collection. Study staff conducted standardized, in-person or remote trainings for 185 ED nurses, registrars, residents, physician assistants, and physicians that included a short discussion on SGM health disparities, how SO/GI information collection can alleviate these disparities, and SGM terminology. Staff were given informational handouts to take with them. Given the demographic differences of Baltimore vs Boston, the SAB recommended implementing both written and verbal modes at all sites. Mode 1 and mode 2 were implemented sequentially at each site to focus on training and technical assistance, with the staff implementing SO/GI collection during that particular mode: Mode 1 was implemented for 6 to 8 months, depending on how long it took to reach the sample size, then mode 2 was implemented until the sample size was reached. Mode 1 consisted of the verbal collection of SO/GI information by nurses during the patient’s clinical encounter. Mode 2 consisted of written collection of SO/GI information by registrars during the registration process. We chose these interventions through SAB member input, weighing both the patient-centeredness and the feasibility in the ED.

**Phase 3: Study Population**

All English-speaking adult patients who entered the emergency departments during the trial period were eligible for inclusion. We excluded patients if they were diagnosed with a psychiatric condition, under the influence of drugs or alcohol, had an Emergency Severity Index (ESI)\(^4\) less than 2 (minimum score of 1, maximum score of 5, with lower numbers indicating urgent and high-risk cases), or had a hand or arm injury (mode 2 only) that would limit their ability to use an iPad.

Because the EQUALITY Study focuses on SGM patient experiences, research assistants attempted to invite every patient who identified as SGM and met inclusion criteria to participate in follow-up surveys. Every patient who identified as an SGM was invited to complete outcome surveys. SGM patients who consented and were enrolled were matched 1:1 by age (+/− 5 years) and illness severity (ESI\(^4\) +/− 1) to patients who identified as heterosexual and cisgender (non-SGM) and to patients for whom SO/GI information was missing (Blank Field). Matched non-SGM and Blank Field patients were also invited to complete outcome
surveys. We chose not to match patients on wait time, because of difficulty finding matches, and we excluded race/ethnicity and socioeconomic status from match criteria because this information was not routinely collected at all sites.

**Phase 3: Data Collection**

Research assistants collected 2 types of data from patients during phase 3: patient self-reported SO/GI and patient-reported comfort during the ED visit. ED staff asynchronously collected sexual orientation and gender identity information according to mode (ie, nurse verbal collection in mode 1 followed sequentially after 6 to 8 months by registrar written collection in mode 2). Although slight variations in question wording occurred because of differences in EHRs, patients were asked their sexual orientation (straight/heterosexual, gay/lesbian/homosexual, bisexual, queer, questioning/unsure, pansexual, prefer to speak with nurse, decline to state, or other) and gender identity (female, male, transgender female-to-male, transgender male-to-female, queer/genderqueer, questioning/unsure, prefer to speak with nurse, decline to state, or other). Although study staff highly encouraged nurses and registrars to collect SO/GI information, we could not mandate it without approval from the nurses’ union, which was not feasible in the research study’s time frame. A proportion of patients were not asked about SO/GI, as evidenced by blank fields in the EHR; these patients were categorized as *Blank Field*. Similarly, patients were not required to provide SO/GI information when asked by nurses or registrars, and those few patients (n = 20) who declined were subsequently not invited to complete a follow-up survey.

To collect patient-reported comfort during the ED visit, research assistants (RAs) invited selected patients to complete a follow-up survey after the patient had been in the ED for at least an hour, regardless of whether they had previously been asked for SO/GI information. RAs ran EHR reports every 15 minutes (when on duty between 7 AM and 10 PM) to allow them to determine which patients reported their SO/GI as SGM, which identified as non-SGM, and which were not asked. When an RA identified an eligible patient (SGM, non-SGM, or Blank Field), this triggered an outcome survey. If the patient had been in the ED for at least an hour, the RA approached the patient and invited him or her to complete the follow-up survey. This survey included general questions about patient experiences from the Communication Climate
Assessment Toolkit (CCAT) as well as Likert scale questions specific to the experience of providing SO/GI during the ED visit. We did not collect SO/GI information from any patients during the follow-up survey, including those who were not asked for this information by the nurse or registrar. Patient surveys can be found in Appendix 5. Because most of the RAs also collected data for several different studies and/or did not staff the ED full time, it was not feasible for them to wait until a patient received discharge orders to complete an outcome survey.

**Phase 3: Study Outcomes**

This study’s primary outcome was patient satisfaction as measured by a scale modified from the CCAT patient survey, an assessment of attitudes toward organizational climate and provider/patient communication. The CCAT is reliable, has been validated in geographically and ethnically diverse health care organizations, and accurately predicts patient-reported quality and trust. Containing 5 out of 7 items from the full CCAT, our prespecified modified scale included only those questions that were applicable to the ED population. For example, we kept the question “Do you feel welcome at the hospital?” but eliminated the question “Was it easy to reach someone on the phone if you had a question?” from analyses. Each scale item was scored as a 0 (most disagreement), ½ (neutral), or 1 (agreement), resulting in a scale score ranging from 0 to 5; higher scores were considered more favorable. If a patient skipped or answered “unsure” to an item, we excluded the patient’s survey data from the analysis. We calculated the overall score by averaging the modified scale score and multiplying by 20, resulting in an overall score out of 100 points. We distinguished between score groups by a difference of 10 points, which corresponds to meaningful changes in patients’ beliefs that they were receiving high-quality care.

Secondary outcomes to assess patient satisfaction included overall patient comfort, patient experiences, and patient comfort with SO/GI collection. Secondary outcome survey items were collected on Likert scales, and we grouped responses into 2 or 3 categories for analysis, depending on the nature of the question. For example, we categorized “How comfortable did ED staff seem to be when interacting with you today?” into 3 categories: very uncomfortable/uncomfortable, neither comfortable nor uncomfortable, and comfortable/very
comfortable. Whereas we categorized “How concerned were you about your privacy while answering questions today?” into 2 categories: not at all concerned vs a little concerned/somewhat concerned/concerned/very concerned. To understand the overall acceptability of each method of SO/GI collection within staff workflow, we assessed the proportion of patients from whom SO/GI was collected with each collection method.

**Phase 3: Data Analysis**

We calculated descriptive data on patient participants by intervention mode and patient match group (SGM, non-SGM, and Blank Field patients) using analysis of variance (ANOVA) for continuous variables and chi-square tests for categorical variables. Although patients were not required to provide SO/GI information, less than 5% declined to respond if they were asked. Because of their low numbers, this subset of patients was not enrolled.

We calculated primary and secondary outcome results using ANOVA or chi-square tests between modes for each patient match group. Because the modified CCAT is an ordinal categorical variable based on a summation of subset scores, we used multivariable ordered logistic regression to examine whether intervention mode was associated with modified CCAT scores after controlling for potential confounding variables: age, race, illness severity, and hospital site. We distinguished between score groups by a difference of 10 points, which corresponds to meaningful changes in patients’ beliefs that they were receiving high-quality care. Therefore, the outcome categories were multiples of 10 (0, 10, 20, 30, etc) ranging from 0 to 100. Although patients completing outcome surveys were matched on age, we controlled for age as a continuous variable in the regression model to further adjust for any intragroup variation. We also controlled for race using 3 categories: white/Caucasian, black/African American, and other.

We considered several other possible options for examining variability in CCAT scores, including linear regression or CCAT score dichotomization–based logistic regression models. We based our final decision to rely on ordered logistic regression on the following aspects of the data: (1) The CCAT score is not normally distributed and is subject to a strong ceiling effect, with a substantial number of individuals answering at the top of the scale; (2) the scale is categorical,
with answers possible only within 1 of 10 possible bins, which are ordered in the manner of a Likert scale for each contributing factor; (3) individual-specific sums of multiple domain scores also follow a pattern that we felt would be best addressed by continuing to consider the CCAT as an ordered categorical variable; and (4) multivariable linear regression was likely to introduce bias as a function of the non-normal distribution of individual item and individual-level combined mean CCAT scores. A priori, we decided to control for patient race/ethnicity, patient age, patient presentation severity, and study location (as a fixed effect). Other analyses are possible within and between specific subsets of patients; however, power may be insufficient to support the identification of significant findings in smaller subsets without the risk of type 1 or type 2 error.

We used complete case analyses for our final results. Even though we had a very low proportion of missing data, we conducted a series of sensitivity analyses on all eligible patients in which we sequentially did not include one of the potential confounders we had controlled for (ie, age, race, illness severity, and hospital site). No changes to our results were noted. For this study, matching was performed without replacement. By matching on factors such as age and medical severity, we purposely limited our ability to generalize findings in the non-SGM groups in favor of focusing on the SGM group for which the study questions were most relevant. We considered methods for replacing missing data, including multiple imputation, for the subset of patients who were not matched because they had missing values for CCAT responses, for example. Based on the predictive abilities of the independent variables available, we decided that imputing the outcome variables (eg, CCAT question responses) was as likely to introduce bias as to reduce it.

We performed all statistical analyses using SAS software (SAS Institute, Cary, NC; 2019) and Stata 14.2 (Stata Statistical Software: Release 14. College Station, TX; 2015).

Phase 3 results are detailed in Results: Patient Outcomes.

Conduct of the Study
The final study protocol as implemented can be found in Appendix 6. Relevant changes to the protocol over the course of the study included additions to staff and patient outcome surveys...
and changes to enrollment dates to facilitate attainment of target numbers. This study was approved by the Johns Hopkins Medicine Institutional Review Board and the Partners Health Institutional Review Board.

Results

Specific Aim 1: To gather qualitative and quantitative input on perceived facilitators, barriers, and preferred approaches for collecting SO/GI in the ED setting via in-depth interviews and surveys from a nationally representative sample of ED patients and providers

Phase 1: Qualitative Interview Results
We asked participants, both patients and health care team members, to discuss the risks and benefits of several SO/GI collection mechanisms. In general, SO and GI may be collected either on a form or verbally. Figure 2 identifies the points in the ED encounter during which SO/GI data could be collected. If these data are collected on a form, possibilities include paper, electronic tablet, electronic kiosk, smartphone application, or home computer application (eg, MyChart). If collected verbally, different health care team members may collect this information (registrar, nurse, or physician).
Figure 2. Potential sexual orientation and gender identity collection points in the emergency department

Figure 3 describes interview participant enrollment, and Figure 4 depicts national survey participant flow. Patient and provider demographics can be found in Table 1. Six major themes emerged from the interviews: privacy, medical relevance, normalization, recognition, the patient–provider relationship, and ED flow. A description of themes can be found in Tables 2 and 3, and intersections between themes and collection mechanisms can be found in Table 4.
Figure 3. Phase 1: Interview participant flow

Assessed for eligibility
Patients: n=104  Providers: n=56

Excluded: n=51
- Screened out (n=16)
- Unable to schedule (n=2)

Excluded: n=18
- Screened out (n=16)
- Unable to schedule (n=2)

Interviewed
Patients: n=53  Providers: n=38

Analyzed
Patients: n=53  Providers: n=38
Figure 4. Phase 1: National survey participant flow
Table 1. Phase 1: Demographics of Patient and Provider Interview Participants

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Patient Participants (N = 53)</th>
<th>Provider Participants (N = 26)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 30</td>
<td>15 (28)</td>
<td>6 (23)</td>
</tr>
<tr>
<td>30-39</td>
<td>8 (15)</td>
<td>10 (38)</td>
</tr>
<tr>
<td>40-49</td>
<td>10 (19)</td>
<td>5 (19)</td>
</tr>
<tr>
<td>50-59</td>
<td>14 (26)</td>
<td>2 (7.7)</td>
</tr>
<tr>
<td>60+</td>
<td>6 (11)</td>
<td>3 (12)</td>
</tr>
<tr>
<td><strong>Highest level of education completed</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school</td>
<td>7 (13)</td>
<td>not available</td>
</tr>
<tr>
<td>Associate degree/trade school</td>
<td>4 (7.5)</td>
<td>not available</td>
</tr>
<tr>
<td>Some college</td>
<td>6 (11)</td>
<td>not available</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>17 (32)</td>
<td>not available</td>
</tr>
<tr>
<td>Advanced degree</td>
<td>11 (21)</td>
<td>not available</td>
</tr>
<tr>
<td>Not listed</td>
<td>8 (15)</td>
<td>not available</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>23 (43)</td>
<td>18 (69)</td>
</tr>
<tr>
<td>Black/African American</td>
<td>24 (45)</td>
<td>3 (12)</td>
</tr>
<tr>
<td>Asian</td>
<td>5 (9.4)</td>
<td>4 (15)</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>0 (0)</td>
<td>1 (3.8)</td>
</tr>
<tr>
<td>Characteristic</td>
<td>Patient Participants (N = 53)</td>
<td>Provider Participants (N = 26)</td>
</tr>
<tr>
<td>----------------------</td>
<td>------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td></td>
<td>N (%)</td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic/Latino(a)</td>
<td>4 (8)</td>
<td>1 (3.8)</td>
</tr>
<tr>
<td>Not Hispanic/Latino(a)</td>
<td>49 (92)</td>
<td>25 (96)</td>
</tr>
<tr>
<td>Sexual orientation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lesbian</td>
<td>9 (17)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Gay</td>
<td>12 (23)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Bisexual</td>
<td>12 (23)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Queer</td>
<td>2 (3.7)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Straight</td>
<td>14 (26)</td>
<td>26 (100)</td>
</tr>
<tr>
<td>Other</td>
<td>4 (7.5)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Gender identity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cisgender man</td>
<td>16 (30)</td>
<td>9 (35)</td>
</tr>
<tr>
<td>Cisgender woman</td>
<td>21 (40)</td>
<td>17 (65)</td>
</tr>
<tr>
<td>Trans man</td>
<td>3 (5.5)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Trans woman</td>
<td>17 (9)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Genderqueer/bigender</td>
<td>4 (7.5)</td>
<td>0 (0)</td>
</tr>
</tbody>
</table>

Table 1. Phase 1: Demographics of Patient and Provider Interview Participants, cont.
<table>
<thead>
<tr>
<th>Major Theme</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Privacy</td>
<td>~ Physical setting and space during disclosure of SO and GI</td>
</tr>
<tr>
<td></td>
<td>~ Presence of family or friends</td>
</tr>
<tr>
<td></td>
<td>~ Storage and use of SO and GI data</td>
</tr>
<tr>
<td>Medical relevance</td>
<td>~ Disclosure of SO and GI when medically relevant to health concern</td>
</tr>
<tr>
<td></td>
<td>~ Importance of SO and GI collection to the individual’s medical care</td>
</tr>
<tr>
<td>Normalization</td>
<td>~ Avoids cisnormative and heteronormative assumptions</td>
</tr>
<tr>
<td></td>
<td>~ Respects differences in SO and GI within society</td>
</tr>
<tr>
<td></td>
<td>~ Raises awareness of SO and GI minorities for others</td>
</tr>
<tr>
<td>Recognition</td>
<td>~ Idea of SO and GI as standard demographic information</td>
</tr>
<tr>
<td></td>
<td>~ Respects SO and GI as an important aspect of one’s identity</td>
</tr>
<tr>
<td>Patient–provider relationship</td>
<td>~ Rapport between providers (nurse or physician) and patient</td>
</tr>
<tr>
<td></td>
<td>~ Patient trust in health care providers and need for competent care</td>
</tr>
<tr>
<td>ED flow</td>
<td>~ Patient movement throughout the ED encounter</td>
</tr>
<tr>
<td></td>
<td>~ Flow of information throughout the ED encounter</td>
</tr>
<tr>
<td></td>
<td>~ Role of providers within encounter, including timing and time constraints</td>
</tr>
</tbody>
</table>
### Table 3. Phase 1: Thematic Intersections With Collection Mechanisms

<table>
<thead>
<tr>
<th>Major themes</th>
<th>Collection Mechanism</th>
<th>Form Collection</th>
<th>Verbal Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Paper</td>
<td>Electronic Kiosk</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cellphone</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>App</td>
</tr>
<tr>
<td>Privacy</td>
<td>+More private than answering verbally</td>
<td>~Less private due to presence of family members or friends</td>
<td></td>
</tr>
<tr>
<td></td>
<td>+Silent transmission of data</td>
<td>~Audible transmission of data</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-Others may see responses</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-Concerns about storage and use</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>+Fill out on own terms and location</td>
<td>-Open physical setting where others may hear</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-Insecure app</td>
<td>+More secure physical setting where others are less likely to hear</td>
<td>+More secure physical setting where others are less likely to hear</td>
</tr>
<tr>
<td>Medical relevance</td>
<td>+Collected as demographic information</td>
<td>+Allows rest of care team to have information early in encounter</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Registrar not a medical provider</td>
<td>+Separate from standard social history questions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-May not be relevant to health concern</td>
<td>-May be asked as part of social history</td>
</tr>
<tr>
<td>Normalization</td>
<td>+Collected as demographic information</td>
<td>+Collected as demographic information</td>
<td>+Separate from social</td>
</tr>
<tr>
<td></td>
<td>+Revising forms to be more inclusive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognition</td>
<td>+Demonstrates that hospital cares about SO and GI +Facilitates societal recognition of SO and GI minorities</td>
<td>+Facilitates societal recognition when asked in a routine manner as part of standard policy</td>
<td>+Facilitates societal recognition when asked in a routine manner as part of standard policy</td>
</tr>
<tr>
<td>---</td>
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</tr>
<tr>
<td>Patient-provider relationship</td>
<td>+Alleviates the patient’s need to judge the provider and search for cues about safety +Can inform the patient’s encounter with providers</td>
<td>+Can build rapport to help patients answer truthfully and more comfortably</td>
<td></td>
</tr>
<tr>
<td>ED flow</td>
<td>+Possibility of registrars/providers helping patients fill out intake forms +Possibility of registrars/providers helping patients fill out intake forms</td>
<td>–Not part of clinical care team</td>
<td>+Clinical personnel –Difficult to mandate routine collection</td>
</tr>
<tr>
<td></td>
<td>+Collected as demographic information +Patients self-disclose on intake</td>
<td>+Collected as demographic information</td>
<td>+Clinical personnel +Spends more time with</td>
</tr>
<tr>
<td></td>
<td>+Sets tone for entire encounter</td>
<td>patients; ability to develop rapport</td>
<td>–Spends the least amount of time with patients</td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------------------------------</td>
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<td>-----------------------------------------------</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Theme</th>
<th>Quotes Re: Form Collection</th>
<th>Quotes Re: Registrar Verbal Collection</th>
<th>Quotes Re: Nurse Verbal Collection</th>
<th>Quotes Re: Physician Verbal Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Privacy</td>
<td>“... a silent transmission of information, so it would maintain a certain level of privacy, thus giving patients the option to consider the questions and make a sort of thoughtful decision about whether and how to answer them.” — cisgender gay man</td>
<td>“Because usually at most hospitals with the registrar you have, like, the booths that provide no privacy. You have people walking behind them. You have people sitting next to you. You have other registrars.” — ?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>“I would probably feel more safer with a computer or something. On the paper I feel like they could just lay the paper down or put it aside; people can actually glance at your information. If it’s on a computer, once you leave that computer then it’s gone.” — ?</td>
<td>“I wouldn’t want to be asked it when I first came in because you would still have to sit in that waiting room, so what if somebody who is maybe homophobic overhears what you are saying? Like, you want this information to go to the people who need to know it and who are going to handle it appropriately. I don’t want to be sitting in that waiting room looking over my shoulder thinking, ‘Who just heard that, who just heard that, what do they think of me, am I safe?’” — cisgender bisexual woman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical relevance</td>
<td></td>
<td></td>
<td>“It is not like a doctor coming in and being, like, ‘So this is what is wrong with you and what is your sexual identity while we are at”</td>
<td></td>
</tr>
<tr>
<td>Theme</td>
<td>Quotes Re: Form Collection</td>
<td>Quotes Re: Registrar Verbal Collection</td>
<td>Quotes Re: Nurse Verbal Collection</td>
<td>Quotes Re: Physician Verbal Collection</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------------------------------------------------------------------------------------</td>
<td>---------------------------------------</td>
<td>----------------------------------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>Normalization</td>
<td>“I think that’s what normalizes it, like, we’re just asking everyone, it’s standard procedure.” — <em>queer-identified trans man</em></td>
<td></td>
<td></td>
<td>“The doctor would have the most medically relevant reason for asking.” — ?</td>
</tr>
<tr>
<td></td>
<td>“I think it’s, you know, making sure that that question isn’t at all bolded or highlighted where it’s visible, or like, it’s noticeable that number 8 is the question on orientation or whatnot, you know? I think it’s just, as long as it seems like it’s just another standard question, like 8, 9, 10, like these are all the questions, like it’s just part of it. I don’t see it being any different. If anything, I’d be like, ‘Oh, how nice, they asked this.’” — <em>cisgender bisexual woman</em></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Recognition | “I feel comfortable knowing if they go to the point of putting this on here [the
<table>
<thead>
<tr>
<th>Theme</th>
<th>Quotes Re: Form Collection</th>
<th>Quotes Re: Registrar Verbal Collection</th>
<th>Quotes Re: Nurse Verbal Collection</th>
<th>Quotes Re: Physician Verbal Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient–provider relationship</td>
<td>“... if you put it in a form it sort of says we know there are these people in the population and we welcome them.” — <em>cisgender lesbian woman</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>“I’m just giving it as data rather than presenting this thing about myself to this person who could react one way or another. Like a form can’t whisper about it behind your back or treat you differently because of it.” — ?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>“In my mind, both as a clinician and as a scientist, is, it overcomes a certain barrier of comfort level. If I hand you a sterile form and say please divulge your deepest, darkest information about yourself that you may or may not have shared with everybody else in the world, you may or may not get the truth. People are on their phone, people are, there’s a comfort level that, you might overcome that barrier.” — <em>cisgender male physician</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>“There is kind of a middle ground with a nurse that is in a private setting since you are already asking other sensitive information, and if it is in the context of all of these other questions, so it can be very routine . . . hands down I would want it to come from the nurse. . . they tend to be a little bit nicer by how they ask things. In my experiences, the nurses tend to just be a lot more sensitive to the fact that you are a person, you are a person with these symptoms rather than the symptoms, rather than the disease, rather than the situation.” — <em>cisgender bisexual woman</em></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Throughout the interviews, participants made a clear distinction between self-disclosure on a form and answering a verbal question from a registrar or provider. Patients viewed form collection as routine or standard policy and, in the setting of form collection, SO and GI were viewed as basic demographic data rather than a clinically relevant piece of information. Participants noted that form collection of SO/GI would be more private than answering questions out loud in a public setting. Form collection on paper, however, was also noted to be not entirely private. Having these questions on intake forms also signaled to participants that the hospital or clinic recognizes and respects SGMs. Finally, many participants felt that the impersonal nature of answering written questions would remove the fear of needing to “come out” to a provider with an unknown level of acceptance and knowledge about SO and GI minority health. Many providers, however, felt that they would be better suited to ask these questions verbally because of their ability to build rapport with patients. Some providers felt that sensitive questions are better addressed verbally as part of a discussion between the patient and provider. Representative quotes from patients and providers regarding form collection can be found in Table 4.

The findings related to verbal collection by the registrar were the most variable. Many participants (both patients and providers) did not feel registrars were appropriate for collecting SO/GI because of privacy concerns, yet registrar interactions emerged as a strongly viable site of collection. Many patient participants envisioned the registrar as a data collector and felt that allowing the registrar to collect SO and GI would normalize the collection of these data as standard demographics. Representative quotes related to registrar collection of SO/GI are found in Table 4.

Patients viewed verbal collection by the nurse as generally favorable. Both patients and members of the health care team felt that the nurse would be able to collect SO and GI in a private area and could manage this information in a sensitive and respectful way. One patient commented, “I was going to say I immediately go to: I want the nurse asking that.” Another agreed, “A nurse is a professional, so that would be fine with a nurse asking me.” Further representative quotes describing nurse verbal collection of SO/GI can be found in Table 4.
Patients most often equated verbal collection of SO and GI by the physician with medical relevance and sexual health–related concerns. Similarly, physicians felt these data were relevant in particular circumstances based on the patient’s health concern. Physicians indicated they would be willing to ask if they themselves perceived the data to be medically relevant. Representative quotes describing physician verbal collection of SO/GI can be found in Table 4.

**Phase 1: Quantitative Results**

The survey response rates were 70.1%, 89.4%, and 86.2% for LGB, transgender, and provider participants, respectively. Nationally weighted demographic data for patients and providers are found in Table 5. Because of incomplete data, 141 surveyed providers were excluded; the survey organization was unable to provide crucial demographic information, which raised questions about the validity of these data, leading to their exclusion from the study sample. Demographics for transgender patients and providers are found in Tables 6 and 7, respectively. Results from the national survey confirmed the generalizability of our qualitative findings from a subset of patients and providers to the national level.

Data on willingness to provide sexual orientation and gender identity when routinely collected in the emergency department are presented in Tables 8 and 9. Among patients, only 10.1% would refuse to provide SO if asked, whereas 77.8% of clinicians believed patients would refuse to provide SO. Similarly, 7.4% of patients would refuse to provide GI if asked, whereas 73.4% of clinicians believed patients would refuse to provide GI.

In unadjusted logistic regression, bisexual patients had 1.73 times the odds of refusing to provide SO compared with straight patients (95% CI, 1.01-2.98; \( P = .048 \)) and patients 60+ years old had 2.19 greater odds of refusing to provide SO information (95% CI, 1.04-4.62; \( P = .04 \)). After adjusting for other demographic characteristics, only bisexual patients continued to have significantly increased odds of refusing to provide SO compared with straight patients (odds ratio [OR] = 2.40; 95% CI, 1.26-4.56; \( P = .008 \)).
Table 5. Phase 1: Demographics of Lesbian, Gay, Bisexual, and Straight Cisgender National Survey Participants

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Lesbian (N = 244)</th>
<th>Gay (N = 289)</th>
<th>Bisexual (N = 179)</th>
<th>Straight (N = 804)</th>
<th>Total (N = 1516)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female, N (%)</td>
<td>244 (100)</td>
<td>0 (0)</td>
<td>118 (65.7)</td>
<td>418 (52.0)</td>
<td>780 (51.4)</td>
</tr>
<tr>
<td>Age, mean (SD)</td>
<td>50 (15.0)</td>
<td>49 (14.0)</td>
<td>42 (15.1)</td>
<td>50 (17.5)</td>
<td>49.0 (16.4)</td>
</tr>
<tr>
<td>Age, N (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-29</td>
<td>56.2 (23.0)</td>
<td>55.1 (19.1)</td>
<td>82.2 (45.9)</td>
<td>163.6 (20.4)</td>
<td>357.1 (23.6)</td>
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<tr>
<td>30-44</td>
<td>69.5 (28.5)</td>
<td>85.0 (29.4)</td>
<td>49.4 (27.6)</td>
<td>204.2 (25.4)</td>
<td>408.2 (26.9)</td>
</tr>
<tr>
<td>45-59</td>
<td>77.6 (31.8)</td>
<td>107.7 (37.3)</td>
<td>30.9 (17.3)</td>
<td>217.2 (27.0)</td>
<td>433.4 (28.6)</td>
</tr>
<tr>
<td>60+</td>
<td>40.7 (16.7)</td>
<td>41.1 (14.2)</td>
<td>16.4 (9.2)</td>
<td>219 (27.2)</td>
<td>317.2 (20.9)</td>
</tr>
<tr>
<td>Education, N (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than high school</td>
<td>23.2 (9.5)</td>
<td>11.4 (3.9)</td>
<td>29.0 (16.2)</td>
<td>93.8 (11.7)</td>
<td>157.4 (10.4)</td>
</tr>
<tr>
<td>High school</td>
<td>46.1 (18.9)</td>
<td>71.7 (24.8)</td>
<td>50.1 (28.0)</td>
<td>239.9 (29.8)</td>
<td>407.8 (26.9)</td>
</tr>
<tr>
<td>Some college</td>
<td>78.8 (32.3)</td>
<td>95.4 (33)</td>
<td>59.2 (33.1)</td>
<td>231.4 (28.8)</td>
<td>464.8 (30.7)</td>
</tr>
<tr>
<td>Bachelor's or above</td>
<td>95.9 (39.3)</td>
<td>110.5 (38.2)</td>
<td>40.7 (22.7)</td>
<td>238.8 (29.7)</td>
<td>485.9 (32.0)</td>
</tr>
<tr>
<td>Race/ethnicity, N (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>145.9 (59.8)</td>
<td>174.7 (60.5)</td>
<td>108.6 (60.7)</td>
<td>536.2 (66.7)</td>
<td>965.4 (63.7)</td>
</tr>
<tr>
<td>Black, non-Hispanic</td>
<td>29.7 (12.2)</td>
<td>19.3 (6.7)</td>
<td>20.6 (11.5)</td>
<td>92.5 (11.5)</td>
<td>162.1 (10.7)</td>
</tr>
<tr>
<td>Other, non-Hispanic</td>
<td>7.3 (3.0)</td>
<td>15.3 (5.3)</td>
<td>9.5 (5.3)</td>
<td>50.1 (6.2)</td>
<td>82.1 (5.4)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>53.5 (21.9)</td>
<td>66.3 (23.0)</td>
<td>35.4 (19.8)</td>
<td>115.5 (14.4)</td>
<td>270.8 (17.9)</td>
</tr>
<tr>
<td>2+ races, non-Hispanic</td>
<td>7.6 (3.1)</td>
<td>13.3 (4.6)</td>
<td>4.9 (2.7)</td>
<td>9.8 (1.2)</td>
<td>35.6 (2.3)</td>
</tr>
<tr>
<td>US region, N (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>45 (18.4)</td>
<td>52.3 (18.1)</td>
<td>27.1 (15.1)</td>
<td>146.8 (18.3)</td>
<td>271.3 (17.9)</td>
</tr>
<tr>
<td>Marital status, N (%)</td>
<td>Midwest</td>
<td>South</td>
<td>West</td>
<td>Midwest</td>
<td>South</td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------</td>
<td>-------</td>
<td>------</td>
<td>---------</td>
<td>-------</td>
</tr>
<tr>
<td>Married</td>
<td>58.9 (24.2)</td>
<td>24.8 (8.6)</td>
<td>52.1 (29)</td>
<td>427.9 (53.2)</td>
<td>563.9 (37.2)</td>
</tr>
<tr>
<td>Widowed</td>
<td>2.5 (1.0)</td>
<td>4.3 (1.5)</td>
<td>1.4 (0.8)</td>
<td>35.8 (4.4)</td>
<td>44.0 (2.9)</td>
</tr>
<tr>
<td>Divorced</td>
<td>11.3 (4.6)</td>
<td>8.8 (3.0)</td>
<td>10.4 (5.8)</td>
<td>72.5 (9.0)</td>
<td>103 (6.8)</td>
</tr>
<tr>
<td>Separated</td>
<td>5.7 (2.3)</td>
<td>0.3 (0.1)</td>
<td>4.2 (2.3)</td>
<td>18.9 (2.4)</td>
<td>29.1 (1.9)</td>
</tr>
<tr>
<td>Never married</td>
<td>75.8 (31.0)</td>
<td>160.1 (55)</td>
<td>74.5 (41.6)</td>
<td>193.4 (24.1)</td>
<td>503.8 (33.2)</td>
</tr>
<tr>
<td>Living with partner</td>
<td>89.8 (36.8)</td>
<td>90.8 (31)</td>
<td>36.3 (20.3)</td>
<td>55.4 (6.9)</td>
<td>272.4 (18.0)</td>
</tr>
</tbody>
</table>
Table 6. Phase 1: Demographics of Transgender National Survey Participants

<table>
<thead>
<tr>
<th>Characteristic, N (%) or Mean (SD)</th>
<th>Males (N = 55)</th>
<th>Females (N = 46)</th>
<th>Total (N = 101)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, mean</td>
<td>33 (9)</td>
<td>43 (16)</td>
<td>37 (13)</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-29</td>
<td>24 (67)</td>
<td>12 (33)</td>
<td>36 (36)</td>
</tr>
<tr>
<td>30-44</td>
<td>23 (68)</td>
<td>11 (32)</td>
<td>34 (34)</td>
</tr>
<tr>
<td>45-59</td>
<td>8 (35)</td>
<td>15 (65)</td>
<td>23 (23)</td>
</tr>
<tr>
<td>60+</td>
<td>0 (0)</td>
<td>8 (100)</td>
<td>8 (8)</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than high school</td>
<td>2 (4)</td>
<td>1 (2)</td>
<td>3 (3)</td>
</tr>
<tr>
<td>High school</td>
<td>4 (7)</td>
<td>7 (15)</td>
<td>11 (11)</td>
</tr>
<tr>
<td>Some college</td>
<td>26 (47)</td>
<td>22 (48)</td>
<td>48 (48)</td>
</tr>
<tr>
<td>Bachelor’s or above</td>
<td>23 (42)</td>
<td>16 (35)</td>
<td>39 (39)</td>
</tr>
<tr>
<td>Race/ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>32 (58)</td>
<td>27 (59)</td>
<td>59 (58)</td>
</tr>
<tr>
<td>Black, non-Hispanic</td>
<td>8 (15)</td>
<td>4 (9)</td>
<td>12 (12)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>10 (18)</td>
<td>8 (17)</td>
<td>18 (18)</td>
</tr>
<tr>
<td>2+ races, non-Hispanic</td>
<td>5 (9)</td>
<td>7 (15)</td>
<td>12 (12)</td>
</tr>
<tr>
<td>US region</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>9 (16)</td>
<td>12 (26)</td>
<td>21 (20)</td>
</tr>
<tr>
<td>Midwest</td>
<td>9 (16)</td>
<td>9 (20)</td>
<td>18 (18)</td>
</tr>
<tr>
<td>South</td>
<td>21 (38)</td>
<td>10 (22)</td>
<td>31 (31)</td>
</tr>
<tr>
<td>West</td>
<td>16 (29)</td>
<td>15 (33)</td>
<td>31 (31)</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>19 (66)</td>
<td>10 (34)</td>
<td>29 (29)</td>
</tr>
<tr>
<td>Widowed</td>
<td>0 (0)</td>
<td>1 (100)</td>
<td>1 (1)</td>
</tr>
<tr>
<td>Divorced</td>
<td>5 (31)</td>
<td>11 (69)</td>
<td>16 (16)</td>
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<tr>
<td>Separated</td>
<td>2 (67)</td>
<td>1 (33)</td>
<td>3 (3)</td>
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<tr>
<td>Never married</td>
<td>20 (51)</td>
<td>19 (49)</td>
<td>39 (39)</td>
</tr>
<tr>
<td>Living with partner</td>
<td>9 (69)</td>
<td>4 (31)</td>
<td>13 (13)</td>
</tr>
<tr>
<td>Sexual orientation</td>
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<td></td>
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</tr>
<tr>
<td>Straight or heterosexual</td>
<td>9 (16)</td>
<td>9 (20)</td>
<td>18 (18)</td>
</tr>
<tr>
<td>Identity Category</td>
<td>12 (22)</td>
<td>11 (24)</td>
<td>23 (23)</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Lesbian, gay, or homosexual</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bisexual</td>
<td>11 (20)</td>
<td>13 (28)</td>
<td>24 (24)</td>
</tr>
<tr>
<td>Other</td>
<td>23 (42)</td>
<td>11 (24)</td>
<td>34 (34)</td>
</tr>
<tr>
<td>Don’t know/decline</td>
<td>0 (0)</td>
<td>2 (4)</td>
<td>2 (2)</td>
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Table 7. Phase 1: Demographics of Provider National Survey Participants

<table>
<thead>
<tr>
<th>Demographics</th>
<th>MD (N = 209)</th>
<th>RN (N = 220)</th>
<th>Total (N = 429)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female, N (%)</td>
<td>52 (24.7)</td>
<td>199 (90.4)</td>
<td>251 (58.4)</td>
</tr>
<tr>
<td>Age, mean (SD)</td>
<td>50 (8.9)</td>
<td>51 (9.9)</td>
<td>51 (9.4)</td>
</tr>
<tr>
<td>Age, N (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-29</td>
<td>0 (0.0)</td>
<td>20 (8.9)</td>
<td>20 (4.6)</td>
</tr>
<tr>
<td>30-44</td>
<td>67 (32.3)</td>
<td>59 (26.7)</td>
<td>126 (29.4)</td>
</tr>
<tr>
<td>45-59</td>
<td>93 (44.5)</td>
<td>114 (51.6)</td>
<td>207 (48.1)</td>
</tr>
<tr>
<td>60+</td>
<td>49 (23.3)</td>
<td>28 (12.8)</td>
<td>77 (17.9)</td>
</tr>
<tr>
<td>Education, N (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than high school</td>
<td>0 (0.0)</td>
<td>10 (4.7)</td>
<td>10 (2.3)</td>
</tr>
<tr>
<td>High school</td>
<td>0 (0.0)</td>
<td>56 (25.3)</td>
<td>56 (13.1)</td>
</tr>
<tr>
<td>Some college</td>
<td>0 (0.0)</td>
<td>117 (53.3)</td>
<td>117 (27.3)</td>
</tr>
<tr>
<td>Bachelor's or above</td>
<td>209 (100.0)</td>
<td>37 (16.8)</td>
<td>246 (57.3)</td>
</tr>
<tr>
<td>Race/ethnicity, N (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>136 (65.2)</td>
<td>169 (76.7)</td>
<td>305 (71.1)</td>
</tr>
<tr>
<td>Identity</td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Black, non-Hispanic</td>
<td>3 (1.5)</td>
<td>19 (8.6)</td>
<td>22 (5.1)</td>
</tr>
<tr>
<td>Other, non-Hispanic</td>
<td>58 (27.6)</td>
<td>19 (8.7)</td>
<td>77 (17.9)</td>
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<tr>
<td>Hispanic</td>
<td>10 (4.7)</td>
<td>11 (5.1)</td>
<td>21 (4.9)</td>
</tr>
<tr>
<td>2+ races, non-Hispanic</td>
<td>2 (1.0)</td>
<td>2 (0.9)</td>
<td>4 (0.9)</td>
</tr>
<tr>
<td>US region, N (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>45 (20.4)</td>
<td>50 (24.0)</td>
<td>95 (22.2)</td>
</tr>
<tr>
<td>Midwest</td>
<td>54 (24.5)</td>
<td>38 (18.3)</td>
<td>92 (21.5)</td>
</tr>
<tr>
<td>South</td>
<td>77 (35.2)</td>
<td>77 (36.9)</td>
<td>155 (36.0)</td>
</tr>
<tr>
<td>West</td>
<td>44 (19.9)</td>
<td>43 (20.8)</td>
<td>87 (20.3)</td>
</tr>
</tbody>
</table>
Table 8. Phase 1: Patient and Provider Views on Willingness to Provide Sexual Orientation

<table>
<thead>
<tr>
<th>I am willing to provide/collect sexual orientation when:</th>
<th>Patients</th>
<th>Providers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lesbian N = 244</td>
<td>Gay N = 289</td>
</tr>
<tr>
<td>There are posters or signs welcoming LGB patients.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Somewhat/strongly agree</td>
<td>113.6 (47.3)</td>
<td>154.7 (53.5)</td>
</tr>
<tr>
<td>Neutral</td>
<td>90.8 (37.8)</td>
<td>103.8 (35.9)</td>
</tr>
<tr>
<td>Somewhat/strongly disagree</td>
<td>35.8 (14.9)</td>
<td>30.5 (10.5)</td>
</tr>
<tr>
<td>The hospital is associated with a religious group.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Somewhat/strongly agree</td>
<td>29.3 (12.0)</td>
<td>47.4 (16.4)</td>
</tr>
<tr>
<td>Neutral</td>
<td>102.6 (42.0)</td>
<td>113.2 (39.2)</td>
</tr>
<tr>
<td>Somewhat/strongly disagree</td>
<td>108 (44.3)</td>
<td>128.3 (44.4)</td>
</tr>
<tr>
<td>I am assured of confidentiality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Somewhat/strongly agree</td>
<td>128.5 (52.6)</td>
<td>188.8 (65.3)</td>
</tr>
<tr>
<td></td>
<td>Neutral</td>
<td>Somewhat/strongly disagree</td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>I’m knowing that my information will be kept private.</td>
<td>90.9 (37.2)</td>
<td>20.9 (8.6)</td>
</tr>
<tr>
<td></td>
<td>73.2 (25.3)</td>
<td>27.0 (9.4)</td>
</tr>
<tr>
<td></td>
<td>46.6 (26.0)</td>
<td>32.2 (18.0)</td>
</tr>
<tr>
<td></td>
<td>334.5 (41.6)</td>
<td>84.7 (10.5)</td>
</tr>
<tr>
<td></td>
<td>14 (13.9)</td>
<td>6 (5.9)</td>
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<td></td>
<td>14 (13.9)</td>
<td>6 (5.9)</td>
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<td></td>
<td>15 (6.8)</td>
<td>5 (2.3)</td>
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<td></td>
<td>27 (12.9)</td>
<td>4 (1.9)</td>
</tr>
<tr>
<td></td>
<td>42 (9.8)</td>
<td>9 (2.1)</td>
</tr>
<tr>
<td></td>
<td>Neutral</td>
<td>Somewhat/strongly disagree</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>---------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>documented the same as other questions (like age, race, etc).</td>
<td>86.9 (35.6)</td>
<td>18.7 (7.7)</td>
</tr>
<tr>
<td>I/the patient would be offended.</td>
<td>70.4 (24.4)</td>
<td>36.4 (12.6)</td>
</tr>
<tr>
<td>I/the patient would refuse to provide SO.</td>
<td>66.9 (37.4)</td>
<td>35.7 (20.0)</td>
</tr>
</tbody>
</table>
### Table 9. Phase 1: Patient and Provider Views of Willingness to Provide Gender Identity

<table>
<thead>
<tr>
<th>I am willing to provide/collection gender identity when:</th>
<th>Patients</th>
<th>Providers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lesbian N = 244</td>
<td>Gay N = 289</td>
</tr>
<tr>
<td>There are posters or signs welcoming transgender patients.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Somewhat/strongly agree</td>
<td>100 (41.1)</td>
<td>125 (43.3)</td>
</tr>
<tr>
<td>Neutral</td>
<td>109 (44.6)</td>
<td>132 (45.5)</td>
</tr>
<tr>
<td>Somewhat/strongly disagree</td>
<td>31 (12.6)</td>
<td>30 (10.3)</td>
</tr>
<tr>
<td>The hospital is associated with a religious group.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Somewhat/strongly agree</td>
<td>32 (13.3)</td>
<td>59 (20.4)</td>
</tr>
<tr>
<td>Neutral</td>
<td>113 (46.3)</td>
<td>122 (42.3)</td>
</tr>
<tr>
<td>Somewhat/strongly disagree</td>
<td>87 (35.7)</td>
<td>105 (36.3)</td>
</tr>
<tr>
<td>I am assured of confidentiality (that my information will be kept confidential).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Somewhat/strongly agree</td>
<td>119 (48.7)</td>
<td>169 (58.5)</td>
</tr>
<tr>
<td>Neutral</td>
<td>104 (42.5)</td>
<td>97 (33.6)</td>
</tr>
<tr>
<td>I am willing to provide/collection gender identity when:</td>
<td>Patients</td>
<td>Providers</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>----------</td>
<td>-----------</td>
</tr>
<tr>
<td></td>
<td>Lesbian N = 244</td>
<td>Gay N = 289</td>
</tr>
<tr>
<td>be kept private).</td>
<td>Somewhat/strongly disagree</td>
<td>13 (5.5)</td>
</tr>
<tr>
<td></td>
<td>Somewhat/strongly agree</td>
<td>54 (21.9)</td>
</tr>
<tr>
<td></td>
<td>Neutral</td>
<td>100 (41.2)</td>
</tr>
<tr>
<td></td>
<td>Somewhat/strongly disagree</td>
<td>82 (33.8)</td>
</tr>
<tr>
<td>I am in a private space.</td>
<td>Somewhat/strongly agree</td>
<td>123 (50.5)</td>
</tr>
<tr>
<td></td>
<td>Neutral</td>
<td>100 (41.1)</td>
</tr>
<tr>
<td></td>
<td>Somewhat/strongly disagree</td>
<td>12 (5.0)</td>
</tr>
<tr>
<td>Gender identity is documented</td>
<td>Somewhat/strongly agree</td>
<td>132 (54.1)</td>
</tr>
<tr>
<td></td>
<td>Patients</td>
<td>Providers</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>------------------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>I am willing to provide/collect gender identity when:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>the same as other questions (like age, race, etc).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neutral</td>
<td>Lesbian N = 244 N (%)</td>
<td>Nurse N = 220 N (%)</td>
</tr>
<tr>
<td></td>
<td>Gay N = 289 N (%)</td>
<td>Physician N = 209 N (%)</td>
</tr>
<tr>
<td></td>
<td>Bisexual N = 179 N (%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Straight N = 804 N (%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total N = 1516 N (%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transgender N = 101 N (%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Neutral</td>
<td></td>
</tr>
<tr>
<td></td>
<td>88 (36.1)</td>
<td>41 (18.6)</td>
</tr>
<tr>
<td></td>
<td>93 (32.1)</td>
<td>43 (20.6)</td>
</tr>
<tr>
<td></td>
<td>87 (48.7)</td>
<td>84 (19.6)</td>
</tr>
<tr>
<td></td>
<td>Somewhat/strongly disagree</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13 (5.5)</td>
<td>33 (15.0)</td>
</tr>
<tr>
<td></td>
<td>26 (9.0)</td>
<td>25 (12.0)</td>
</tr>
<tr>
<td></td>
<td>19 (10.6)</td>
<td>58 (13.5)</td>
</tr>
<tr>
<td></td>
<td>Neutral</td>
<td></td>
</tr>
<tr>
<td></td>
<td>90 (37.0)</td>
<td>35 (15.9)</td>
</tr>
<tr>
<td></td>
<td>100 (34.7)</td>
<td>30 (14.3)</td>
</tr>
<tr>
<td></td>
<td>55.5 (31.0)</td>
<td>65 (15.1)</td>
</tr>
<tr>
<td></td>
<td>Somewhat/strongly disagree</td>
<td></td>
</tr>
<tr>
<td></td>
<td>136 (55.6)</td>
<td>19 (8.6)</td>
</tr>
<tr>
<td></td>
<td>154 (53.3)</td>
<td>10 (4.8)</td>
</tr>
<tr>
<td></td>
<td>100 (55.7)</td>
<td>29 (6.8)</td>
</tr>
<tr>
<td>I/the patient would be offended.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Somewhat/strongly agree</td>
<td>14 (5.8)</td>
<td>166 (75.4)</td>
</tr>
<tr>
<td></td>
<td>29 (10.1)</td>
<td>169 (80.9)</td>
</tr>
<tr>
<td></td>
<td>21 (12.0)</td>
<td>335 (78.1)</td>
</tr>
<tr>
<td></td>
<td>Neutral</td>
<td></td>
</tr>
<tr>
<td></td>
<td>90 (37.0)</td>
<td>21 (20.8)</td>
</tr>
<tr>
<td></td>
<td>100 (34.7)</td>
<td>35 (15.9)</td>
</tr>
<tr>
<td></td>
<td>55.5 (31.0)</td>
<td>30 (14.3)</td>
</tr>
<tr>
<td></td>
<td>Somewhat/strongly disagree</td>
<td></td>
</tr>
<tr>
<td></td>
<td>136 (55.6)</td>
<td>19 (8.6)</td>
</tr>
<tr>
<td></td>
<td>154 (53.3)</td>
<td>10 (4.8)</td>
</tr>
<tr>
<td></td>
<td>100 (55.7)</td>
<td>29 (6.8)</td>
</tr>
<tr>
<td>I/the patient would refuse to provide GI.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Somewhat/strongly agree</td>
<td>12 (5.0)</td>
<td>157 (71.4)</td>
</tr>
<tr>
<td></td>
<td>27 (9.2)</td>
<td>158 (75.6)</td>
</tr>
<tr>
<td></td>
<td>16 (8.9)</td>
<td>315 (73.4)</td>
</tr>
<tr>
<td></td>
<td>Neutral</td>
<td></td>
</tr>
<tr>
<td></td>
<td>85 (34.7)</td>
<td>24 (23.8)</td>
</tr>
<tr>
<td></td>
<td>95 (32.8)</td>
<td>46 (20.9)</td>
</tr>
<tr>
<td></td>
<td>60 (33.4)</td>
<td>43 (20.6)</td>
</tr>
<tr>
<td></td>
<td>Somewhat/strongly disagree</td>
<td></td>
</tr>
<tr>
<td></td>
<td>141 (57.8)</td>
<td>17 (7.7)</td>
</tr>
<tr>
<td></td>
<td>164 (56.9)</td>
<td>8 (3.8)</td>
</tr>
<tr>
<td></td>
<td>102 (56.9)</td>
<td>25 (5.8)</td>
</tr>
</tbody>
</table>
Table 10. Phase 1: Preferred Method of Sexual Orientation Collection in the ED by Patients and Providers

<table>
<thead>
<tr>
<th>Method</th>
<th>Patients</th>
<th>Providers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lesbian N = 244</td>
<td>Gay N = 289</td>
</tr>
<tr>
<td>Nonverbal self-report</td>
<td>124 (50.8)</td>
<td>144 (49.6)</td>
</tr>
<tr>
<td>Verbal collection by registrar</td>
<td>30 (12.3)</td>
<td>18 (6.4)</td>
</tr>
<tr>
<td>Verbal collection by nurse</td>
<td>20 (8.2)</td>
<td>11 (3.8)</td>
</tr>
<tr>
<td>Verbal collection by doctor</td>
<td>37 (15.2)</td>
<td>83 (28.7)</td>
</tr>
<tr>
<td>Other/none of the above</td>
<td>32 (13.1)</td>
<td>32 (11.0)</td>
</tr>
<tr>
<td>Would not ask (providers only)</td>
<td>1 (0.4)</td>
<td>1 (0.5)</td>
</tr>
</tbody>
</table>
Table 11. Phase 1: Preferred Method of Gender Identity Collection in the ED by Patients and Providers

<table>
<thead>
<tr>
<th>Method</th>
<th>Patients</th>
<th>Providers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lesbian N = 244</td>
<td>Gay N = 289</td>
</tr>
<tr>
<td>Nonverbal self-report</td>
<td>120 (49.0)</td>
<td>140 (48.6)</td>
</tr>
<tr>
<td>Verbal collection by registrar</td>
<td>28 (11.5)</td>
<td>25 (8.5)</td>
</tr>
<tr>
<td>Verbal collection by nurse</td>
<td>21 (8.5)</td>
<td>15 (5.1)</td>
</tr>
<tr>
<td>Verbal collection by doctor</td>
<td>45 (18.4)</td>
<td>78 (26.9)</td>
</tr>
<tr>
<td>Other/none of the above</td>
<td>30 (12.2)</td>
<td>28 (9.7)</td>
</tr>
<tr>
<td>Would not ask (providers only)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Both patients and providers indicated nonverbal self-report as their preferred method of sexual orientation and gender identity information collection (Tables 10 and 11). This preference is supported by the qualitative interviews, in which patients identified normalization and recognition as major facilitators of SO/GI collection.

**Specific Aim 2: To develop and prioritize patient-centered approaches for collecting SO/GI information using modified Delphi rounds with stakeholder advisory board members**

**Phase 2: Modified Delphi Rounds Results**

Twenty-two of 25 SAB members participated in round 1 (participation rate: 84.6%); all 22 SAB members who participated in round 1 also participated in round 2 (participation rate: 100%).

**Delphi Round 1 Results**

A tabular summary of Delphi round results can be found in Table 12. Most SAB members agree that SO/GI should be collected by the same method, at the same time during the emergency department visit, and with the same frequency. Free responses emphasized the importance of allowing patients the opportunity to update their SO/GI information at a frequency of their own discretion; however, the most appropriate frequency for collecting SO/GI varied. SAB members recognized that sexual orientation and gender identity are very different attributes; nonetheless, for the purpose of implementation most SAB members agreed that these 2 data points should be collected simultaneously.
### Table 12. Phase 2: Results of Delphi Rounds With Stakeholder Advisory Board

<table>
<thead>
<tr>
<th>Delphi Round</th>
<th>Main Points Re: Method</th>
<th>Main Points Re: Frequency</th>
<th>Main Points Re: Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Round 1</strong></td>
<td>Most members agreed that SO and GI should be collected by same method, at the same time. Multimodal collection (ie, nurse verbal collection in mode 1 and registrar written collection in mode 2) was the most preferred method.</td>
<td>Most members agreed that SO and GI should be collected with the same frequency.</td>
<td>For implementation purposes, SO and GI should be collected simultaneously. EDs may need to adapt collection based on feasibility and operational factors.</td>
</tr>
<tr>
<td><strong>Round 2</strong></td>
<td>The most preferred multimodal approach was verbal collection by the nurse, followed by electronic form collection administered by the nurse. Most support was for multimodal approaches involving the nurse and registrar. There was clear consensus that if the preferred approach utilizes form collection followed by verbal confirmation, the form should include an option that indicates the patient is not willing to disclose on the form but is willing to participate in a verbal discussion with ED staff.</td>
<td>SAB members were most supportive of collecting SO/GI once at the first ED visit but allowing patients to update this information at their own discretion at subsequent visits.</td>
<td>The most common free response answer for best method to implement was multimodal vs form collection. The most preferred education format was in-service training for all ED staff, and 95% of SAB members expected this training to be mandatory.</td>
</tr>
</tbody>
</table>
Collection Methods General Points
Multimodal collection (ie, nurse verbal collection in mode 1 and registrar written collection in mode 2) was the most preferred method for collecting SO/GI. No SAB members prioritized verbal collection as the preferred method for collecting SO/GI. Free responses recognized that for feasibility and operations, the same method should be employed to collect both SO and GI. This presents a challenge because the needs of sexual and gender minorities may differ. Free responses recognized that each ED may need to adapt SO/GI collection based on feasibility and operational factors.

Delphi Round 2 Results

Frequency of Collection
SAB members were most supportive of collecting SO/GI once at the first ED visit but allowing patients to update this information at their own discretion at subsequent visits. Free responses highlighted other ideas: Ideally, SO/GI would already be in the patient’s EHR (through primary care or outpatient care) and would not need to be collected in the ED. Few SAB members felt SO/GI should be collected at every visit.

Multimodal Approach
The most preferred multimodal approach was verbal SO/GI information collection by the nurse followed by electronic form collection administered by the nurse. The nurse was selected as the preferred person to administer the form for collecting SO and GI as part of any multimodal approach. Rationales for choosing nurses over other health care providers included their clinical expertise, their rapport with patients, and the amount of time they spent with patients as compared with registrars and physicians. In general, there was more support for multimodal approaches involving the nurse and registrar; there was less support for multimodal approaches involving the physician. Most SAB members agreed that if the preferred approach utilizes form collection followed by verbal confirmation, the form should include an option that indicates the patient is not willing to disclose on the form and not willing to participate in a verbal discussion with ED staff. There was clear consensus that if the preferred approach utilizes form collection followed by verbal confirmation, the form should include an option that
indicates the patient is not willing to disclose on the form but is willing to participate in a verbal discussion with ED staff. Most SAB members supported the idea that SO/GI data should be documented and available within the EHR.

Implementation
We asked SAB members to determine the best methods for implementing SO/GI collection. Options included multimodal collection (a combination of different methods, eg, form with option to provide information verbally at a later time), form collection (eg, filling out a paper form, filling out an electronic form at a kiosk, filling out an online form from a computer at home), or verbal collection (a conversation between a member of the ED team and the patient). The most common free response answer was multimodal vs form collection.

Education and Training of the ED Team in SGM Health and Cultural Competency
Because several SAB members’ expertise included SGM cultural competence training, participants were asked for input on best practices for educating and training ED staff. The most preferred education format was in-service training for all ED staff, and 95% of SAB members expected this training to be mandatory. Of SAB members, 50% thought annual staff training was appropriate. Many suggested that training at hire and at least annually thereafter (if not more frequently) was best.

Specific Aim 3: To evaluate the comparative effectiveness of 2 patient-centered approaches for collecting SO/GI among patients in the ED: verbal collection by nurses and written collection by registrars

ClinicalTrials.gov
The study was registered under ClinicalTrials.gov, number NCT 02701049. All ClinicalTrials.gov tables are included in Appendix 7.

Enrollment
Between February 8, 2016, and March 29, 2017, we tested 2 SO/GI information collection approaches sequentially: nurse verbal collection during the clinical encounter (mode 1) and
then registrar written collection during registration (mode 2). During mode 1, a total of 109,994 patients were seen in the ED at the participating sites. Of these patients, 19,742 (18%) had SO/GI recorded in the EHR by a nurse or other clinician. During mode 2, 88,143 patients were seen in the EDs. Of these, 3,630 (4%) provided SO/GI information via a form administered by the registrar. Thus, SO/GI data were collected from 23,372 patients during phase 3. Because our IRB approval did not permit us to analyze the EHR charts of those patients whom we did not enroll, we are unable to report patient demographics for all eligible patients.

Among patients who had SO/GI collected, 22,699 patients did not identify as SGM and 673 patients identified as SGM. In total, 551 of 673 SGM patients (82%) were eligible to participate in the study. From those, 122 were excluded because they were not consentable based on medical or demographic exclusion criteria (n = 95) or they were identified as “other” during SO/GI collection (n = 27); these exclusion criteria are detailed in the Limitations section of the discussion. Among eligible SGM patients, 318 were not enrolled because a research assistant was not available (n = 289), the clinical team advised study staff not to approach the patient (n = 24), or the patient had previously enrolled in the study (n = 5). Of the 233 SGM patients invited to participate in the study, 213 (92%) completed outcome surveys.

After identifying all SGM patients who completed outcome surveys, we matched these 213 participants on hospital site, age (+/− 5 years), and ESI (+/− 1) to non-SGM and to Blank Field patients, resulting in 207 triads. Of the 621 patients in fully matched triads, 540 (87%) were included in final analyses: 342 from mode 1 (nurse verbal collection) and 198 from mode 2 (registrar written collection). Figures 5a and 5b provide full details on enrollment during each intervention mode.
Figure 5a. Patient enrollment during EQUALITY intervention mode 1

“Blank Field” patients are represented in the second row \((n = 90,252)\) and the non-SGM patients are represented in the fourth row \((n = 19,165)\). From these 2 pools, 129 non-SGM and 134 Blank Field patients were matched to SGM patients (fourth row from the bottom). Patients were matched on hospital site, age, and ESI. We excluded patients who had an ESI score of 3+, presented with a psychiatric condition, were under the influence of drugs or alcohol, or had a hard or arm injury that prevented them from writing or using an iPad.
Figure 5b. Patient enrollment during EQUALITY intervention mode 2

Registrar Nonverbal Collection

- 88,143 patients entered the ED during Mode 2
  - 84,513 did not have SO/GI collected
  - 3,630 patients had SO/GI collected
    - 3,534 patients did not identify as LGBT
    - 96 LGBT patients were identified for outcome surveys
      - 3 were ineligible
      - 93 LGBT patients were eligible for outcome surveys
        - 7 were excluded
          - 1 clinicians advised against
          - 6 RA unavailable
        - 86 LGBT patients were invited to complete outcome surveys
          - 7 patients declined enrollment
          - 79 non-LGBT matched patients enrolled
          - 79 LGBT patients enrolled
          - 79 not asked matched patients enrolled
            - 237 total patients completed outcome surveys
              - 39 patients excluded
                - 9 incomplete surveys
                - 30 incomplete match groups
              - 198 total patients were included in analysis
Study Sample

Overall, patients enrolled during mode 2 were significantly younger and had a lower illness severity (Emergency Severity Index 4 or 5) than mode 1 patients (Table 13). When comparing patients by match group and mode, patients in mode 2 were significantly younger than patients in mode 1. Additionally, a significantly higher proportion of patients had an illness severity of 4 in mode 2 compared with mode 1 across all match groups. A higher proportion of patients who identified as female participated in mode 2 among the SGM match group only. Additional characteristics of patients by match group and mode are found in Table 14.

Interventions

The intervention also included educating and training ED physicians, physician assistants, nurses, and registrars on SGM health disparities and terminology.

Nurses (mode 1) and registrars (mode 2) were asked, but not required, to collect SO/GI information as part of their workflow. During mode 1, nurses entered SO/GI information directly into the EHR, from which analytic reports were run to identify the number and proportion of patients from whom SO/GI was collected. During mode 2, registrars asked patients to complete SO/GI information as part of a demographics collection form that was administered electronically or on paper, dependent on site. Research staff entered forms that were completed on paper, which were then linked to EHR data to determine the number and proportion of patients from whom SO/GI information was collected. Nurse verbal collection of SO/GI information was integrated into the workflow at every study site and was considered standard of care in other departments by the hospital systems. Registrar written collection was a new process at every site, requiring workflow reorganization and modification in addition to staff training on SGM health.
Table 13. Phase 3: Characteristics of Patients Enrolled During the EQUALITY Intervention

<table>
<thead>
<tr>
<th></th>
<th>Mode 0&lt;sup&gt;a&lt;/sup&gt; (n = 209)</th>
<th>Mode 1&lt;sup&gt;b&lt;/sup&gt; (n = 342)</th>
<th>Mode 2&lt;sup&gt;b&lt;/sup&gt; (n = 198)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, mean (SD)</td>
<td>48.0 (17.2)</td>
<td>38.5 (13.5)</td>
<td>33.0 (12.3)</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Gender identity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male, n (%)</td>
<td>97 (46.4%)</td>
<td>75 (32.9%)</td>
<td>32 (25.8%)</td>
<td>0.27</td>
</tr>
<tr>
<td>Female, n (%)</td>
<td>107 (51.2%)</td>
<td>149 (65.3%)</td>
<td>85 (68.5%)</td>
<td></td>
</tr>
<tr>
<td>Transgender male to female, n (%)</td>
<td>0</td>
<td>1 (0.4%)</td>
<td>1 (0.8%)</td>
<td></td>
</tr>
<tr>
<td>Transgender female to male, n (%)</td>
<td>0</td>
<td>3 (1.3%)</td>
<td>2 (1.6%)</td>
<td></td>
</tr>
<tr>
<td>Queer/genderqueer, n (%)</td>
<td>0</td>
<td>0</td>
<td>3 (2.4%)</td>
<td></td>
</tr>
<tr>
<td>Questioning/unsure, n (%)</td>
<td>0</td>
<td>0</td>
<td>1 (0.8%)</td>
<td></td>
</tr>
<tr>
<td>Declined to state, n (%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Other, n (%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Missing, n (%)</td>
<td>5 (2.4%)</td>
<td>114 (33.3%)</td>
<td>74 (37.4%)</td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White, n (%)</td>
<td>69 (33.0%)</td>
<td>123 (36.0%)</td>
<td>77 (38.9%)</td>
<td>0.26</td>
</tr>
<tr>
<td>Black, n (%)</td>
<td>78 (37.3%)</td>
<td>178 (52.0%)</td>
<td>85 (42.9%)</td>
<td></td>
</tr>
<tr>
<td>Asian, n (%)</td>
<td>4 (1.9%)</td>
<td>3 (0.9%)</td>
<td>2 (1.0%)</td>
<td></td>
</tr>
<tr>
<td>American Indian, n (%)</td>
<td>0</td>
<td>1 (0.3%)</td>
<td>3 (1.5%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mode 0&lt;sup&gt;a&lt;/sup&gt; (n = 209)</td>
<td>Mode 1&lt;sup&gt;b&lt;/sup&gt; (n = 342)</td>
<td>Mode 2&lt;sup&gt;b&lt;/sup&gt; (n = 198)</td>
<td>P Value</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-------------------------------</td>
<td>-----------------------------</td>
<td>-------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Native Hawaiian, n (%)</td>
<td>0</td>
<td>0</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>Other, n (%)</td>
<td>3 (1.4%)</td>
<td>4 (1.2%)</td>
<td>4 (2.0%)</td>
<td></td>
</tr>
<tr>
<td>Hispanic, n (%)</td>
<td>17 (8.1%)</td>
<td>30 (8.8%)</td>
<td>25 (12.6%)</td>
<td></td>
</tr>
<tr>
<td>Unknown, n (%)</td>
<td>3 (1.4%)</td>
<td>2 (0.6%)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Declined, n (%)</td>
<td>1 (0.5%)</td>
<td>1 (0.3%)</td>
<td>1 (0.5%)</td>
<td></td>
</tr>
<tr>
<td>Missing, n (%)</td>
<td>34 (16.3%)</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Emergency Severity Index</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency Severity Index 2, n (%)</td>
<td>42 (20.1%)</td>
<td>40 (11.7%)</td>
<td>26 (13.1%)</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Emergency Severity Index 3, n (%)</td>
<td>110 (52.6%)</td>
<td>264 (77.2%)</td>
<td>115 (58.1%)</td>
<td></td>
</tr>
<tr>
<td>Emergency Severity Index 4, n (%)</td>
<td>23 (11.0%)</td>
<td>37 (10.8%)</td>
<td>49 (24.7%)</td>
<td></td>
</tr>
<tr>
<td>Emergency Severity Index 5, n (%)</td>
<td>0</td>
<td>1 (0.3%)</td>
<td>8 (4.0%)</td>
<td></td>
</tr>
<tr>
<td>Emergency Severity Index missing, n (%)</td>
<td>34 (16.3%)</td>
<td>0</td>
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<tr>
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<td></td>
</tr>
<tr>
<td>Site 1, n (%)</td>
<td>47 (22.5%)</td>
<td>84 (24.6%)</td>
<td>51 (25.8%)</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Site 2, n (%)</td>
<td>50 (23.9%)</td>
<td>48 (14.0%)</td>
<td>24 (12.1%)</td>
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</tr>
<tr>
<td>Site 3, n (%)</td>
<td>56 (26.8%)</td>
<td>195 (57.0%)</td>
<td>87 (43.9%)</td>
<td></td>
</tr>
<tr>
<td>Site 4, n (%)</td>
<td>56 (26.8%)</td>
<td>15 (4.4%)</td>
<td>36 (18.2%)</td>
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</tr>
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</table>
Table 14. Phase 3: Characteristics of Patients Enrolled During the EQUALITY Intervention by Patient Match Group and Intervention Mode

<table>
<thead>
<tr>
<th></th>
<th>Sexual and Gender Minorities (n = 180)</th>
<th>Non–sexual and Gender Minorities (n = 180)</th>
<th>Blank Field (n = 180)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mode 1 (n = 114)</td>
<td>Mode 2 (n = 66)</td>
<td>P Value</td>
</tr>
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<td>Age, mean (SD)</td>
<td>38.4 (138)</td>
<td>33.0 (12.9)</td>
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<td>38.9 (13.4)</td>
<td>33.1 (12.3)</td>
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<td>38.2 (13.4)</td>
<td>33.0 (12.0)</td>
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<td>Gender identityd</td>
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<tr>
<td>Male, n (%)</td>
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<td>10 (15.1%)</td>
<td>.004</td>
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<tr>
<td></td>
<td>30 (26.3%)</td>
<td>10 (15.1%)</td>
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<tr>
<td></td>
<td>5 (4.3%)</td>
<td>1 (1.5%)</td>
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<tr>
<td>Female, n (%)</td>
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<td>42 (63.6%)</td>
<td>80 (70.2%)</td>
</tr>
<tr>
<td></td>
<td>42 (63.6%)</td>
<td>42 (63.6%)</td>
<td>9 (7.9%)</td>
</tr>
<tr>
<td></td>
<td>4 (6.1%)</td>
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<td></td>
</tr>
<tr>
<td>Transgender male to female, n (%)</td>
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<td>1 (1.5%)</td>
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</tr>
<tr>
<td></td>
<td>1 (1.5%)</td>
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</tr>
<tr>
<td>Transgender female to male, n (%)</td>
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<td>2 (3.0%)</td>
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<td>2 (3.0%)</td>
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</tr>
<tr>
<td></td>
<td>3 (4.5%)</td>
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<td>0</td>
</tr>
<tr>
<td>Questioning/unsure, n (%)</td>
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<tr>
<td></td>
<td>1 (1.5%)</td>
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<tr>
<td>Declined to state, n (%)</td>
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<td>0</td>
</tr>
<tr>
<td>Other, n (%)</td>
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</tr>
<tr>
<td>Missing, n (%)</td>
<td>10 (8.7%)</td>
<td>7 (10.6%)</td>
<td>4 (3.5%)</td>
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<tr>
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<td>7 (10.6%)</td>
<td>100 (87.7%)</td>
<td>61 (92.4%)</td>
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<td>Sexual and Gender Minorities (n = 180)</td>
<td>Non–sexual and Gender Minorities (n = 180)</td>
<td>Blank Field (n = 180)</td>
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<td>---------------</td>
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</tr>
<tr>
<td></td>
<td>Mode 1 (n = 114)</td>
<td>Mode 2 (n = 66)</td>
<td>Mode 1 (n = 114)</td>
</tr>
<tr>
<td>Race</td>
<td></td>
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<tr>
<td>White, n (%)</td>
<td>39 (34.2%)</td>
<td>30 (45.4%)</td>
<td>.07</td>
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<tr>
<td>Black, n (%)</td>
<td>60 (52.6%)</td>
<td>23 (34.8%)</td>
<td></td>
</tr>
<tr>
<td>Asian, n (%)</td>
<td>1 (0.9%)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>American Indian, n (%)</td>
<td>1 (0.9%)</td>
<td>2 (3.0%)</td>
<td></td>
</tr>
<tr>
<td>Native Hawaiian, n (%)</td>
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<td></td>
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<tr>
<td>Other, n (%)</td>
<td>2 (1.7%)</td>
<td>1 (1.5%)</td>
<td></td>
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<tr>
<td>Hispanic, n (%)</td>
<td>11 (9.6%)</td>
<td>6 (9.1%)</td>
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<tr>
<td>Unknown, n (%)</td>
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<tr>
<td>Declined, n (%)</td>
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<td>0</td>
<td></td>
</tr>
<tr>
<td>Missing, n (%)</td>
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<td>0</td>
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<tr>
<td>Emergency Severity Index</td>
<td></td>
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<tr>
<td>Emergency Severity Index 2, n (%)</td>
<td>14 (12.3%)</td>
<td>11 (16.7%)</td>
<td>.002</td>
</tr>
<tr>
<td></td>
<td>Sexual and Gender Minorities (n = 180)</td>
<td>Non–sexual and Gender Minorities (n = 180)</td>
<td>Blank Field (n = 180)</td>
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<td>----------------------------------------</td>
<td>---------------------------------------------</td>
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</tr>
<tr>
<td></td>
<td>Mode 1 (n = 114)</td>
<td>Mode 2 (n = 66)</td>
<td>Mode 1 (n = 114)</td>
</tr>
<tr>
<td>Emergency Severity Index 3, n (%)</td>
<td>84 (73.7%)</td>
<td>34 (51.5%)</td>
<td>87 (76.3%)</td>
</tr>
<tr>
<td>Emergency Severity Index 4, n (%)</td>
<td>16 (14.0%)</td>
<td>16 (24.2%)</td>
<td>9 (7.9%)</td>
</tr>
<tr>
<td>Emergency Severity Index 5, n (%)</td>
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<td>5 (7.6%)</td>
<td>1 (0.9%)</td>
</tr>
<tr>
<td>Emergency Severity Index missing, n (%)</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Study site</td>
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<tr>
<td>Site 1, n (%)</td>
<td>28 (24.6%)</td>
<td>17 (25.8%)</td>
<td>.02</td>
</tr>
<tr>
<td>Site 2, n (%)</td>
<td>16 (14.0%)</td>
<td>8 (12.1%)</td>
<td>16 (14.0%)</td>
</tr>
<tr>
<td>Site 3, n (%)</td>
<td>65 (57.0%)</td>
<td>29 (43.9%)</td>
<td>65 (57.0%)</td>
</tr>
<tr>
<td>Site 4, n (%)</td>
<td>5 (4.4%)</td>
<td>12 (18.2%)</td>
<td>5 (4.4%)</td>
</tr>
</tbody>
</table>

<sup>a</sup>P value for the difference between modes 1 and 2 among sexual and gender minorities who enrolled in the study.

<sup>b</sup>P value for the difference between modes 1 and 2 among non–sexual and gender minorities who enrolled in the study.

<sup>c</sup>P value for the difference between modes 1 and 2 among Blank Field patients who enrolled in the study.

<sup>d</sup>Gender identity as reported in 2-step method (1: assigned sex at birth, 2: current gender identity).
Patient Outcomes

Average modified CCAT scores during nurse verbal collection were 89.5 (SD 20.5; 95% CI, 85.7-93.3), 91.8 (SD 18.9; 95% CI, 88.3-95.3), and 92.7 (SD 15.9; 95% CI, 89.8-95.7) for SGM, non-SGM, and Blank Field patients, respectively. During registrar written collection, average modified CCAT scores were 95.6 (SD 11.9; 95% CI, 92.7-98.5), 93.2 (SD 13.6; 95% CI, 89.9-96.5), and 93.6 (SD 14.7; 95% CI, 90.0-97.2) among SGM, non-SGM, and Blank Field patients, respectively. Differences between modified CCAT scores during mode 1 vs mode 2 were significant among SGM patients only, with a 6.1-point difference (P <.05). We found no significant differences between modes 1 and 2 for any of the secondary outcome measures (Table 15).

Because we were interested in the experiences of SGM patients in particular, we conducted ordered logistic regression analyses stratified by patient match group (SGM, non-SGM, and Blank Field). In unadjusted regression models stratifying by patient match group, SGM patients had 1.98 increased odds of a better CCAT score category, a difference of 10 points, between modes 1 and 2 (95% CI, 0.99-3.98; P value =.05). After adjusting for covariates, the strength of the association increased to 2.57 (95% CI, 1.13-5.82; P value =.02; Table 16a). The odds of the CCAT score increasing between modes 1 and 2 among non-SGM patients or patients not asked to provide SO/GI were not significant (Table 16b).

To test the robustness of our findings, we conducted multiple sensitivity analyses. We examined ED wait time as a predictor of CCAT scores because wait time is a predictor of satisfaction with ED encounters.50,51 Wait time was missing among 4% of patients, which would result in losing 12% of the sample after dropping the matched triads (SGM, non-SGM, and Blank Field). We completed the regression analyses with wait time both as a continuous variable and as a dichotomous variable (wait time missing: yes/no). Because neither of these wait time variables was a significant predictor of modified CCAT score overall or in the stratified analyses, we chose not to include it in the final model.

Additionally, we completed ordered logistic regression of the full 7-item CCAT score. Among the 30% of patients (n = 162) who answered questions that were not relevant to their
ED experience (enabling a calculation of the full 7-item CCAT score), patients participating during mode 2 were 2.8 times more likely ($P = .02$) to answer in a higher CCAT score category, a difference of 10 points corresponding to increased satisfaction with their ED experience, than individuals answering in mode 1.
Table 15. Phase 3: Primary and Secondary Outcomes of the EQUALITY Intervention by Patient Match Group and Intervention Mode

<table>
<thead>
<tr>
<th></th>
<th>Sexual and Gender Minorities (n = 180)</th>
<th>Non-Sexual and Gender Minorities (n = 180)</th>
<th>Blank Field (n = 180)</th>
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<tbody>
<tr>
<td></td>
<td>Mode 1 (n = 114)</td>
<td>Mode 2 (n = 66)</td>
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<tr>
<td></td>
<td></td>
<td>P Value&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>CCAT5&lt;sup&gt;d&lt;/sup&gt; mean (SD)</td>
<td>89.5 (20.5)</td>
<td>95.6 (11.9)</td>
<td>.0274</td>
</tr>
<tr>
<td>CCAT5&lt;sup&gt;e&lt;/sup&gt;</td>
<td>.554&lt;sup&gt;f&lt;/sup&gt;</td>
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</tr>
<tr>
<td>0</td>
<td>1 (0.9%)</td>
<td>1 (0.9%)</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>0</td>
<td>1 (0.9%)</td>
</tr>
<tr>
<td>20</td>
<td>1 (0.9%)</td>
<td>1 (1.5%)</td>
<td>0</td>
</tr>
<tr>
<td>30</td>
<td>3 (2.6%)</td>
<td>1 (0.9%)</td>
<td>1 (0.9%)</td>
</tr>
<tr>
<td>40</td>
<td>3 (2.6%)</td>
<td>3 (2.6%)</td>
<td>1 (1.5%)</td>
</tr>
<tr>
<td>50</td>
<td>2 (1.7%)</td>
<td>0</td>
<td>2 (3.0%)</td>
</tr>
<tr>
<td>60</td>
<td>4 (3.5%)</td>
<td>1 (0.9%)</td>
<td>1 (1.5%)</td>
</tr>
<tr>
<td>70</td>
<td>2 (1.7%)</td>
<td>2 (3.0%)</td>
<td>3 (2.6%)</td>
</tr>
<tr>
<td>80</td>
<td>9 (7.9%)</td>
<td>4 (6.1%)</td>
<td>11 (9.6%)</td>
</tr>
<tr>
<td>90</td>
<td>13 (11.4%)</td>
<td>7 (10.6%)</td>
<td>8 (7.0%)</td>
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<tr>
<td>100</td>
<td>76 (66.7%)</td>
<td>52 (78.8%)</td>
<td>84 (73.7%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P Value&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mode 1 (n = 114)</td>
<td>Mode 2 (n = 66)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>P Value&lt;sup&gt;c&lt;/sup&gt;</td>
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</tr>
<tr>
<td>0</td>
<td>1 (0.9%)</td>
<td>1 (0.9%)</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>0</td>
<td>1 (0.9%)</td>
</tr>
<tr>
<td>20</td>
<td>1 (0.9%)</td>
<td>1 (1.5%)</td>
<td>0</td>
</tr>
<tr>
<td>30</td>
<td>3 (2.6%)</td>
<td>1 (0.9%)</td>
<td>1 (0.9%)</td>
</tr>
<tr>
<td>40</td>
<td>3 (2.6%)</td>
<td>3 (2.6%)</td>
<td>1 (1.5%)</td>
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<td>0</td>
<td>2 (3.0%)</td>
</tr>
<tr>
<td>60</td>
<td>4 (3.5%)</td>
<td>1 (0.9%)</td>
<td>1 (1.5%)</td>
</tr>
<tr>
<td>70</td>
<td>2 (1.7%)</td>
<td>2 (3.0%)</td>
<td>3 (2.6%)</td>
</tr>
<tr>
<td>80</td>
<td>9 (7.9%)</td>
<td>4 (6.1%)</td>
<td>11 (9.6%)</td>
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<tr>
<td>90</td>
<td>13 (11.4%)</td>
<td>7 (10.6%)</td>
<td>8 (7.0%)</td>
</tr>
<tr>
<td>100</td>
<td>76 (66.7%)</td>
<td>52 (78.8%)</td>
<td>84 (73.7%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P Value&lt;sup&gt;c&lt;/sup&gt;</td>
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<tr>
<td>0</td>
<td>1 (0.9%)</td>
<td>1 (0.9%)</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>0</td>
<td>1 (0.9%)</td>
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<tr>
<td>20</td>
<td>1 (0.9%)</td>
<td>1 (1.5%)</td>
<td>0</td>
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<td>3 (2.6%)</td>
<td>1 (0.9%)</td>
<td>1 (0.9%)</td>
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<tr>
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<td>3 (2.6%)</td>
<td>3 (2.6%)</td>
<td>1 (1.5%)</td>
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<td>2 (1.7%)</td>
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<td>2 (3.0%)</td>
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<td>60</td>
<td>4 (3.5%)</td>
<td>1 (0.9%)</td>
<td>1 (1.5%)</td>
</tr>
<tr>
<td>70</td>
<td>2 (1.7%)</td>
<td>2 (3.0%)</td>
<td>3 (2.6%)</td>
</tr>
<tr>
<td>80</td>
<td>9 (7.9%)</td>
<td>4 (6.1%)</td>
<td>11 (9.6%)</td>
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<tr>
<td>100</td>
<td>76 (66.7%)</td>
<td>52 (78.8%)</td>
<td>84 (73.7%)</td>
</tr>
</tbody>
</table>

<sup>a</sup> P values for CCAT5 mean comparison between Mode 1 and Mode 2.
<sup>b</sup> P values for CCAT5 frequency comparison between Mode 1 and Mode 2.
<sup>c</sup> P values for CCAT5 frequency comparison between Blank Field and Mode 1.
<sup>d</sup> CCAT5: Cultural Competence Assessment Tool for Transgender Health.
<sup>e</sup> CCAT5 frequency: Percentage of participants who scored in each category.
<sup>f</sup> P values for CCAT5 frequency comparison between Blank Field and Mode 2.

68
<table>
<thead>
<tr>
<th></th>
<th>Sexual and Gender Minorities (n = 180)</th>
<th>Non–Sexual and Gender Minorities (n = 180)</th>
<th>Blank Field (n = 180)</th>
<th>( P ) Value&lt;sup&gt;a&lt;/sup&gt;</th>
<th>( P ) Value&lt;sup&gt;b&lt;/sup&gt;</th>
<th>( P ) Value&lt;sup&gt;c&lt;/sup&gt;</th>
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<tbody>
<tr>
<td></td>
<td>Mode 1 ( n = 114 )</td>
<td>Mode 2 ( n = 66 )</td>
<td>Mode 1 ( n = 114 )</td>
<td>Mode 2 ( n = 66 )</td>
<td>( P ) Value&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Mode 1 ( n = 114 )</td>
</tr>
<tr>
<td>Staff comfort with patient&lt;sup&gt;g&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.501&lt;sup&gt;f&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>(Very) uncomfortable, n (%)</td>
<td>21 (18.3%)</td>
<td>12 (18.2%)</td>
<td>23 (20%)</td>
<td>15 (22.7%)</td>
<td>21 (18.3%)</td>
<td>6 (9.1%)</td>
</tr>
<tr>
<td>Neither comfortable nor uncomfortable, n (%)</td>
<td>7 (6.1%)</td>
<td>1 (1.5%)</td>
<td>5 (4.3%)</td>
<td>1 (1.5%)</td>
<td>4 (3.5%)</td>
<td>1 (1.5%)</td>
</tr>
<tr>
<td>(Very) comfortable, n (%)</td>
<td>85 (74.6%)</td>
<td>53 (80.3%)</td>
<td>86 (75.4%)</td>
<td>50 (75.8%)</td>
<td>89 (78.1%)</td>
<td>58 (87.9%)</td>
</tr>
<tr>
<td>Did not answer, n (%)</td>
<td>1 (0.9%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1 (1.5%)</td>
</tr>
<tr>
<td>Staff treat patient with respect&lt;sup&gt;g&lt;/sup&gt;</td>
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<td></td>
<td></td>
<td></td>
<td>0.571&lt;sup&gt;f&lt;/sup&gt;</td>
<td></td>
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<tr>
<td>(Very) disrespectful, n (%)</td>
<td>12 (10.4%)</td>
<td>4 (6.1%)</td>
<td>11 (9.6%)</td>
<td>4 (6.1%)</td>
<td>9 (7.8%)</td>
<td>2 (3.0%)</td>
</tr>
<tr>
<td>Neutral, n (%)</td>
<td>7 (6.1%)</td>
<td>3 (4.5%)</td>
<td>8 (7.0%)</td>
<td>2 (3.0%)</td>
<td>9 (7.8%)</td>
<td>1 (1.5%)</td>
</tr>
<tr>
<td>(Very) respectful, n (%)</td>
<td>94 (82.5%)</td>
<td>59 (89.4%)</td>
<td>95 (83.3%)</td>
<td>59 (89.4%)</td>
<td>96 (84.2%)</td>
<td>63 (95.4%)</td>
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<td></td>
<td>Sexual and Gender Minorities (n = 180)</td>
<td>Non-Sexual and Gender Minorities (n = 180)</td>
<td>Blank Field (n = 180)</td>
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<tr>
<td></td>
<td>Mode 1 (n = 114)</td>
<td>Mode 2 (n = 66)</td>
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<tr>
<td></td>
<td>Mode 1 (n = 114)</td>
<td>Mode 2 (n = 66)</td>
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</tr>
<tr>
<td></td>
<td>$P$ Value$^a$</td>
<td>$P$ Value$^b$</td>
<td>$P$ Value$^c$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did not answer, n (%)</td>
<td>1 (0.9%)</td>
<td>0</td>
<td>0</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Staff ignore patient$^c$</td>
<td></td>
<td>.921$^f$</td>
<td>.190$^f$</td>
<td>.449$^f$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never/rarely, n (%)</td>
<td>101 (87.8%)</td>
<td>61 (92.4%)</td>
<td>97 (85.1%)</td>
<td>61 (92.4%)</td>
<td>101 (88.6%)</td>
<td>63 (95.4%)</td>
</tr>
<tr>
<td>Sometimes, n (%)</td>
<td>8 (7.0%)</td>
<td>3 (4.5%)</td>
<td>12 (10.5%)</td>
<td>3 (4.5%)</td>
<td>9 (7.9%)</td>
<td>3 (4.5%)</td>
</tr>
<tr>
<td>Often/constantly, n (%)</td>
<td>3 (2.6%)</td>
<td>1 (1.5%)</td>
<td>5 (4.4%)</td>
<td>1 (1.5%)</td>
<td>2 (1.7%)</td>
<td>0</td>
</tr>
<tr>
<td>Did not answer, n (%)</td>
<td>2 (1.7%)</td>
<td>1 (1.5%)</td>
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<td>1 (1.5%)</td>
<td>2 (1.7%)</td>
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<td>Patient concerned about privacy$^c$</td>
<td>.539$^f$</td>
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<td></td>
<td>.555$^f$</td>
<td>.397$^f$</td>
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<td>84 (73.7%)</td>
<td>53 (80.3%)</td>
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<td>51 (77.3%)</td>
<td>94 (82.5%)</td>
<td>52 (78.8%)</td>
</tr>
<tr>
<td>A little/some what/very concerned, n (%)</td>
<td>27 (23.7%)</td>
<td>11 (16.7%)</td>
<td>20 (17.5%)</td>
<td>14 (21.2%)</td>
<td>19 (16.7%)</td>
<td>13 (19.7%)</td>
</tr>
<tr>
<td></td>
<td>Sexual and Gender Minorities (n = 180)</td>
<td>Non–Sexual and Gender Minorities (n = 180)</td>
<td>Blank Field (n = 180)</td>
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<tr>
<td></td>
<td>Mode 1 (n = 114)</td>
<td>Mode 2 (n = 66)</td>
<td>Mode 1 (n = 114)</td>
<td>Mode 2 (n = 66)</td>
<td>P Value&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Mode 1 (n = 114)</td>
</tr>
<tr>
<td>Did not answer, n (%)</td>
<td>3 (2.6%)</td>
<td>2 (3.0%)</td>
<td>0</td>
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<td></td>
<td>1 (0.9%)</td>
</tr>
<tr>
<td>Piece of personal information least comfortable sharing&lt;sup&gt;g&lt;/sup&gt;</td>
<td>.440&lt;sup&gt;f&lt;/sup&gt;</td>
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</tr>
<tr>
<td>Race/ethnicity, n (%)</td>
<td>2 (1.7%)</td>
<td>4 (6.1%)</td>
<td>4 (3.5%)</td>
<td>1 (1.5%)</td>
<td></td>
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<td>Income, n (%)</td>
<td>6 (5.3%)</td>
<td>2 (3.0%)</td>
<td>3 (2.6%)</td>
<td>5 (7.6%)</td>
<td></td>
<td>2 (1.7%)</td>
</tr>
<tr>
<td>Sexual orientation, n (%)</td>
<td>16 (14.0%)</td>
<td>10 (15.1%)</td>
<td>5 (4.4%)</td>
<td>4 (6.1%)</td>
<td>4 (3.5%)</td>
<td>0</td>
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<tr>
<td>Gender identity, n (%)</td>
<td>9 (7.9%)</td>
<td>3 (4.5%)</td>
<td>5 (4.4%)</td>
<td>2 (3.0%)</td>
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</tr>
<tr>
<td>Religion, n (%)</td>
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<td>2 (3.0%)</td>
<td>5 (4.4%)</td>
<td>5 (7.6%)</td>
<td>2 (1.7%)</td>
<td>2 (1.7%)</td>
</tr>
<tr>
<td>Other, n (%)</td>
<td>11 (9.6%)</td>
<td>12 (18.2%)</td>
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<td>12 (18.2%)</td>
<td>9 (7.9%)</td>
<td>3 (4.5%)</td>
</tr>
<tr>
<td>Not applicable, n (%)</td>
<td>60 (52.6%)</td>
<td>32 (48.5%)</td>
<td>75 (65.8%)</td>
<td>34 (51.5%)</td>
<td>94 (82.5%)</td>
<td>60 (90.9%)</td>
</tr>
<tr>
<td></td>
<td>Sexual and Gender Minorities (n = 180)</td>
<td>Non–Sexual and Gender Minorities (n = 180)</td>
<td>Blank Field (n = 180)</td>
<td>P Valuea</td>
<td>P Valueb</td>
<td>P Valuerc</td>
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<td>---------------------------------------------</td>
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</tr>
<tr>
<td>Did not answer, n (%)</td>
<td>5 (4.4%)</td>
<td>4 (3.5%)</td>
<td>2 (1.7%)</td>
<td></td>
<td></td>
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<td></td>
<td>1 (1.5%)</td>
<td>3 (4.5%)</td>
<td>1 (1.5%)</td>
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</tr>
<tr>
<td>Comfort reporting sexual orientationg</td>
<td></td>
<td>.050f</td>
<td>.000f</td>
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<td></td>
<td>.573f</td>
</tr>
<tr>
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<td>2 (1.7%)</td>
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<td></td>
<td>4 (6.1%)</td>
<td>3 (4.5%)</td>
<td>0</td>
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</tr>
<tr>
<td>A little/Some what comfortable, n (%)</td>
<td>13 (11.4%)</td>
<td>5 (4.4%)</td>
<td>3 (2.6%)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>14 (21.2%)</td>
<td>4 (6.1%)</td>
<td>1 (1.5%)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(Very) comfortable, n (%)</td>
<td>77 (67.5%)</td>
<td>56 (49.1%)</td>
<td>30 (26.3%)</td>
<td></td>
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<tr>
<td></td>
<td>44 (66.7%)</td>
<td>49 (74.2%)</td>
<td>22 (33.3%)</td>
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<tr>
<td>Did not answer, n (%)</td>
<td>20 (17.5%)</td>
<td>51 (44.7%)</td>
<td>82 (71.0%)</td>
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<tr>
<td></td>
<td>4 (6.0%)</td>
<td>10 (15.1%)</td>
<td>43 (65.2%)</td>
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<tr>
<td>Comfort reporting gender identityg</td>
<td></td>
<td>.051f</td>
<td>.000f</td>
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<td></td>
<td>.705f</td>
</tr>
<tr>
<td>Not at all comfortable, n (%)</td>
<td>2 (1.7%)</td>
<td>2 (1.7%)</td>
<td>1 (0.9%)</td>
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<td></td>
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<td></td>
<td>2 (3.0%)</td>
<td>2 (3.0%)</td>
<td>0</td>
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<td></td>
</tr>
<tr>
<td>A little/some what comfortable, n (%)</td>
<td>Mode 1 (n = 114)</td>
<td>Mode 2 (n = 66)</td>
<td>P Value&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Mode 1 (n = 114)</td>
<td>Mode 2 (n = 66)</td>
<td>P Value&lt;sup&gt;b&lt;/sup&gt;</td>
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<tr>
<td>11 (9.6%)</td>
<td>4 (6.1%)</td>
<td></td>
<td></td>
<td>4 (3.5%)</td>
<td>2 (3.0%)</td>
<td></td>
</tr>
<tr>
<td>(Very) comfortable, n (%)</td>
<td>77 (67.5%)</td>
<td>55 (83.3%)</td>
<td></td>
<td>61 (53.5%)</td>
<td>54 (81.8%)</td>
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<tr>
<td>Did not answer, n (%)</td>
<td>24 (20.9%)</td>
<td>5 (7.6%)</td>
<td></td>
<td>47 (40.9%)</td>
<td>8 (12.1%)</td>
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</tr>
<tr>
<td>Important for all patients to provide sexual orientation&lt;sup&gt;e&lt;/sup&gt;</td>
<td></td>
<td></td>
<td>.118</td>
<td></td>
<td></td>
<td>.040</td>
</tr>
<tr>
<td>Not at all important, n (%)</td>
<td>30 (26.1%)</td>
<td>18 (27.3%)</td>
<td></td>
<td>37 (32.5%)</td>
<td>19 (28.8%)</td>
<td></td>
</tr>
<tr>
<td>A little/some what important, n (%)</td>
<td>23 (20.2%)</td>
<td>14 (21.2%)</td>
<td></td>
<td>17 (14.9%)</td>
<td>9 (13.6%)</td>
<td></td>
</tr>
<tr>
<td>(Very) important, n (%)</td>
<td>47 (41.2%)</td>
<td>18 (27.3%)</td>
<td></td>
<td>50 (43.9%)</td>
<td>22 (33.3%)</td>
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<td></td>
<td>Sexual and Gender Minorities (n = 180)</td>
<td>Non–Sexual and Gender Minorities (n = 180)</td>
<td>Blank Field (n = 180)</td>
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<tr>
<td></td>
<td>Mode 1 (n = 114)</td>
<td>Mode 2 (n = 66)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Did not answer, n (%)</td>
<td>14 (12.2%)</td>
<td>16 (24.2%)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Important for all patients to provide gender identity (g)</td>
<td>.225</td>
<td>.160</td>
<td>.019</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not at all important, n (%)</td>
<td>25 (21.9%)</td>
<td>12 (18.2%)</td>
<td>43 (37.7%)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>A little/some what important, n (%)</td>
<td>23 (20.2%)</td>
<td>11 (16.7%)</td>
<td>20 (17.5%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Very) important, n (%)</td>
<td>52 (45.6%)</td>
<td>27 (40.9%)</td>
<td>39 (34.2%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did not answer, n (%)</td>
<td>14 (12.2%)</td>
<td>16 (24.2%)</td>
<td>12 (10.4%)</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

\(a\) P value for the difference between modes 1 and 2 among sexual and gender minorities who enrolled in the study.

\(b\) P value for the difference between modes 1 and 2 among non–sexual and gender minorities who enrolled in the study.

\(c\) P value for the difference between modes 1 and 2 among Blank Field patients who enrolled in the study.

\(d\) Primary outcome.

\(e\) CCAT5 is an ordinal categorical variable; this shows where each patient fell in each of the 11 possible score categories.

\(f\) Fisher exact test results reported.

\(g\) Secondary outcomes.
Table 16a. Phase 3: Ordered Logistic Regression of Increasing Patient Satisfaction Score for All Patients

<table>
<thead>
<tr>
<th></th>
<th>All Patients (n = 540)</th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Unadjusted</td>
<td>Adjusted</td>
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</tr>
<tr>
<td></td>
<td>OR 95% CI   P Value</td>
<td>OR 95% CI P Value</td>
<td></td>
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</tr>
<tr>
<td>Mode (ref = nurse verbal)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Black/African American</td>
<td>0.84 0.56-1.26  .39</td>
<td>1.09 0.70-1.71  .71</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Other</td>
<td>1.43 0.75-2.71  .28</td>
<td>1.50 0.77-2.91  .24</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Emergency Severity Index (Ref = 2)</td>
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</tr>
<tr>
<td>3</td>
<td>0.80 0.43-1.47  .47</td>
<td>0.97 0.51-1.84  .92</td>
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<tr>
<td>4</td>
<td>0.76 0.37-1.56  .45</td>
<td>0.79 0.37-1.70  .55</td>
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<tr>
<td>5</td>
<td>0.53 0.12-2.35  .40</td>
<td>0.51 0.11-2.45  .40</td>
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</tr>
<tr>
<td>Site (ref = 1)</td>
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</tr>
<tr>
<td>2</td>
<td>1.15 0.57-2.33  .69</td>
<td>1.24 0.61-2.54  .55</td>
<td></td>
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<td></td>
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<tr>
<td>3</td>
<td>0.60 0.37-0.96  .03</td>
<td>0.67 0.40-1.14  .14</td>
<td></td>
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</tr>
<tr>
<td>4</td>
<td>0.72 0.35-1.49  .38</td>
<td>0.68 0.32-1.45  .32</td>
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</tr>
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</table>
Table 16b. Phase 3: Ordered Logistic Regression of Increasing Patient Satisfaction Score by Patient Group

<table>
<thead>
<tr>
<th></th>
<th>Blank Field Patients (No SO/GI Information) (n = 180)</th>
<th>Non–sexual or Gender Minority Patients (n = 180)</th>
<th>Sexual and Gender Minority Patients (n = 180)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unadjusted</td>
<td>Adjusted</td>
<td>Unadjusted</td>
</tr>
<tr>
<td>Mode (ref = nurse verbal)</td>
<td>Unadjusted</td>
<td>Adjusted</td>
<td>Unadjusted</td>
</tr>
<tr>
<td>OR 95% CI, P Value</td>
<td>OR 95% CI, P Value</td>
<td>OR 95% CI, P Value</td>
<td>OR 95% CI, P Value</td>
</tr>
<tr>
<td>1.41 (0.68-2.93)</td>
<td>0.69 (0.47-1.73)</td>
<td>0.47 (0.42-1.83)</td>
<td>1.98 (0.987-3.982)</td>
</tr>
<tr>
<td>Age</td>
<td>0.99 (0.99-1.04)</td>
<td>0.99 (0.99-1.05)</td>
<td>1.02 (0.99-1.05)</td>
</tr>
<tr>
<td>Race (ref = white/Caucasian)</td>
<td>0.58 (0.27-1.24)</td>
<td>0.68 (0.29-1.59)</td>
<td>0.55 (0.55-2.17)</td>
</tr>
<tr>
<td>Black/African American</td>
<td>0.96 (0.30-3.05)</td>
<td>0.76 (0.22-2.61)</td>
<td>0.66 (0.66-7.13)</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td>-</td>
<td>0.46 (0.04-5.70)</td>
</tr>
<tr>
<td>Emergency Severity Index (ref = 2)</td>
<td>-</td>
<td>-</td>
<td>0.46 (0.04-5.70)</td>
</tr>
<tr>
<td>3</td>
<td>1.84 (0.46-7.41)</td>
<td>1.79 (0.42-7.63)</td>
<td>0.67 (0.20-2.17)</td>
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<tr>
<td>4</td>
<td>1.71 (0.34-4.57)</td>
<td>1.15 (0.28-4.61)</td>
<td>0.85 (0.12-1.81)</td>
</tr>
<tr>
<td>5</td>
<td>0.70 (0.31-1.59)</td>
<td>0.81 (0.32-2.06)</td>
<td>0.66 (0.16-0.89)</td>
</tr>
<tr>
<td></td>
<td>Blank Field Patients (No SO/GI Information) (n = 180)</td>
<td>Non-sexual or Gender Minority Patients (n = 180)</td>
<td>Sexual and Gender Minority Patients (n = 180)</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-----------------------------------------------------</td>
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</tr>
<tr>
<td></td>
<td>Unadjusted</td>
<td>Adjusted</td>
<td>Unadjusted</td>
</tr>
<tr>
<td>4</td>
<td>0.62</td>
<td>0.18-2.15</td>
<td>0.52</td>
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<tr>
<td></td>
<td>0.34</td>
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<td>0.82</td>
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<td></td>
<td>0.02</td>
<td></td>
<td>0.24-4.92</td>
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<tr>
<td></td>
<td>0.29</td>
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<td>0.56</td>
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</tbody>
</table>
Of note, only 16 individuals from each patient match group provided complete CCAT survey data in mode 2, and, interestingly, Blank Field patients represented the only group significantly more likely to have answered in a higher CCAT score category during mode 2 than during mode 1 (OR = 6.74; 95% CI, 1.09, 41.6; \( P \) value = 0.04). Because of low numbers of complete surveys, we included incomplete surveys in the analyses.

Discussion

Decisional Context
SGM populations report poorer health\textsuperscript{30,31} and less access to health insurance and health services\textsuperscript{13} compared with heterosexual, cisgender populations. Approximately 10 million Americans now identify as SGM,\textsuperscript{52} and although some disparities have been identified, the lack of data on SO/GI is a major challenge to understanding and addressing SGM health inequities.\textsuperscript{53-55} To begin addressing this issue, SGM individuals have been identified as a target group for health improvement by Healthy People 2020,\textsuperscript{56} and the US Department of Health and Human Services, National Academy of Medicine, Health Resources and Services Administration, and Joint Commission now recommend routine collection of SO/GI data in federally funded population health surveys and in electronic health records.\textsuperscript{4,23,33,47}

Obtaining data through population surveys is important for identifying and addressing health disparities; in addition, collecting data in a patient’s EHR can help clinicians provide more complete care.\textsuperscript{27,58} In 2015, the Centers for Medicare & Medicaid Services released Meaningful Use Stage 3 Guidelines that require all certified EHR systems to have the capacity to record SO/GI data,\textsuperscript{59} but very few health systems or hospitals report routinely collecting such data.\textsuperscript{27} EDs are the source of nearly half of inpatient admissions in the United States and the primary point of entry for uninsured and underinsured patients,\textsuperscript{28} as well as SGM patients.\textsuperscript{60} However, few hospital EDs routinely collect SO/GI information,\textsuperscript{27} and there are no evidence-based methods standards to collect these data in a patient-centered manner. Despite the importance of SO/GI collection for providing high-quality, patient-centered care and the opportunity to collect a large volume of SO/GI information for SGM disparities research, routine collection of
data on SO/GI in the ED setting is rare, and optimal patient-centered approaches for collecting this information remain unclear.

Little is known about the effect of SO/GI data collection on patient outcomes; yet, given the importance of SO/GI to population health\textsuperscript{4,57,61} and clinical care,\textsuperscript{22,62-64} the objectives of this study were to (1) gather qualitative input on perceived facilitators, barriers, and preferred approaches for collecting SO/GI in the ED setting; (2) develop and prioritize patient-centered approaches for collecting SO/GI; and (3) evaluate the comparative effectiveness of patient-centered approaches for collecting SO/GI in the ED setting. The results of the EQUALITY Study will help clinicians and ED leadership make decisions about how to implement SO/GI collection in their organizations in a patient-centered manner.

\textbf{Study Results in Context}

The results of phase 1 of the EQUALITY Study revealed that most Americans are willing to disclose sexual orientation in the emergency department setting, regardless of their sexual orientation. The survey data are supported by in-depth, qualitative interviews that suggest discordance between patient and provider views on routine collection of sexual orientation; although most providers believe patients will refuse to provide sexual orientation information, few patients report that they would refuse to provide such information. Routine collection of sexual orientation from all patients signals normalization of SGM within society, and both patients and providers identify nonverbal self-report as the preferred method of collection.

Routine collection of SO information in the health care setting is important not only for individual patients but also for the normalization of SGM individuals within society.\textsuperscript{65} Normalizing the collecting of SO/GI information for every patient creates a dialogue between patients and providers,\textsuperscript{66} and promotes a welcoming, inclusive environment.\textsuperscript{67} Previous research in community health settings shows that patients think it is important for providers to know their sexual orientation and that they are willing to provide such information when asked.\textsuperscript{68} Phase 1 of the EQUALITY Study extends these findings to the ED and further iterates not only that patients are willing to provide SO/GI information when asked, but that very few patients will take offense to or refuse to participate in routine collection of SO/GI information.
Findings from phase 2 of the EQUALITY Study highlighted potential challenges of SO/GI collection that have been reported previously, including the practicality of collection, unknown willingness of patients to disclose, and use of the information after it has been disclosed. Further, discontinuity of EHRs between health systems—and even between departments within one system—poses a challenge for SO/GI collection because patients may be prompted for SO/GI information more than once or providers might skip collection, assuming it had occurred in an earlier or separate clinical encounter.

EQUALITY Study phase 3 assessed 2 potential methods to collect SO/GI in the ED and found that SGM patients reported significantly higher satisfaction with their ED experience during registrar written collection of SO/GI compared with nurse verbal collection. The difference in mean CCAT scores between nurse verbal collection and registrar written collection (> 10) suggests clinically significant differences in patients’ beliefs about the quality of care that they were receiving. No significant differences in satisfaction occurred among non-SGM patients or Blank Field patients. We also found that most patients—across modes and patient match groups—said it was important for all patients to report SO/GI information: 62.4% of patients reported that it was important for all patients to provide sexual orientation information (95% CI, 0.580-0.669; \( P < .001 \)) and 70.6% of patients reported that it was important for all patients to provide gender identity information (95% CI, 0.664-0.748; \( P < .001 \)). These findings indicate that collection is important to patients and that the collection method may not matter to patients who are not affected by self-identifying as SGM, but nonverbal self-report is clearly favored by patients who disclose their SGM status during an implementation trial.

Many researchers have called for routine SO/GI collection to create health care environments that facilitate disclosure and recognition of SGM patients, and Meaningful Use Stage 3 Guidelines set the expectation that many health care systems should have the ability to collect these data. Implementing SO/GI collection in a patient-centered manner helps create an environment that facilitates disclosure and provides the opportunity for SGM patients to be recognized and acknowledged within the health care setting.
Previous research has indicated that many SGM patients feel that disclosing SO/GI to a clinician is as difficult as disclosing to other people in their lives, so the findings of EQUALITY phase 3 are critical to implementing SO/GI collection in a patient-centered manner.

Implementation of Study Results

The current study indicates that SGM patients have much more positive experiences when SO/GI is collected via nonverbal self-report. Based on findings from phase 1, patients are willing to provide SO/GI in the ED if the information is collected safely and appropriately. Emphasis on standard collection for the purposes of population health facilitates disclosure, so standard scripts for staff may help alleviate patient concerns regarding SO/GI collection.

Staff training has been identified as a central consideration for implementing SO/GI collection, both in the EQUALITY Study and by other researchers. Focusing educational messaging on 1 or 2 critical messages has been successful in implementing SO/GI collection in large US academic medical centers.

Another major consideration when implementing SO/GI collection is the impact on staff workflow. Patient-centered SO/GI collection will be successful only if it is routinely collected by staff. Overall SO/GI collection from all patients was lower during nonverbal self-report, but this can be explained by the nature of the interventions. Nurse verbal collection of SO/GI information was integrated into the workflow at every study site. In contrast, registrar written collection was a new process at every site, requiring workflow reorganization and modification in addition to staff training on SGM health. This finding speaks to the importance of integrating SO/GI collection smoothly into the workflow in order to make SO/GI collection a success. Additionally, because our findings indicate that patients prefer nonverbal self-report of SO/GI, hospitals and EDs must use great care when designing their SO/GI collection systems, to ensure that clinicians are able to view and utilize the important personal information that patients provide.

Generalizability

Results from phase 1 national surveys indicate that few patients would refuse to provide SO/GI information, regardless of sexual orientation and gender identity. Phase 3 of the EQUALITY
Study took place in both academic and community hospitals in the Northeastern and Mid-Atlantic United States, and the results indicate that SGM patients reported more comfort with their ED experience when written SO/GI collection was implemented as compared with verbal collection. Patients’ preferred method for collection may differ in other areas of the United States, but considering that nonverbal self-report is the more conservative method, it would likely be acceptable in any region of the United States. Additionally, SO/GI collection can be customized to each organization’s unique environment, as UC Davis demonstrated when it implemented both online self-report and provider verbal collection of SO/GI.34

Subpopulation Considerations
The results of the EQUALITY Study clearly indicate that SGM patients prefer nonverbal self-report to provide SO/GI information in the ED, whereas non-SGM patients appear to have no preference for collection. Results from the phase 1 national survey indicated that bisexual patients are significantly more likely to refuse to provide SO/GI; however, phase 3 was not powered to look at differences in preferred collection methods among lesbian, gay, bisexual, and transgender patients. Additionally, transgender patients are particularly vulnerable to health disparities and discrimination in clinical settings,71,73 so understanding patient-centered ways to collect and utilize gender identity information in the ED is critical.

Study Limitations
Each phase of the EQUALITY Study had potential limitations. In phase 1, interviews were conducted in one urban area of the United States, thus potentially identifying themes unique to SGM patients in one region or in urban areas vs rural areas. However, the subsequent national survey, which confirmed the qualitative themes on the national level, helped to alleviate those concerns. In addition, all interviewed providers identified as heterosexual and cisgender. Non-heterosexual and transgender providers could have different views on SO/GI data collection, although the medical community lacks data on the proportion of providers who identify as SGM and, consequently, their attitude toward SGM health care.

In phase 3, patients who identified their SO/GI as “other” were not eligible for inclusion in the outcome surveys because some patients who did not necessarily fall into the SGM
spectrum were being classified as “other” in the EHR. For example, at least 1 priest and 1 nun were listed as “other.” RAs often did not know this until they approached these patients; because enrolling them was taking away from recruiting other patients, we decided to exclude patients with this classification. Thus, phase 3 missed out on data from patients who have fluid sexual orientation or gender identities, or who choose not to define themselves in a particular category. It is unclear how these patients felt about each mode of SO/GI collection and their experiences with SO/GI collection in the ED, thus potentially attenuating the findings.

Additionally, in phase 3, patients who were admitted to the ED with a psychiatric diagnosis were not eligible for participation because of potential issues confounding both comfort and satisfaction with the ED encounter. SGM patients are particularly vulnerable to poor mental health, and excluding these patients loses the voice of patients who may benefit most from improved SGM sensitivity. Excluding SGM patients admitted for mental health diagnoses likely attenuated the phase 3 findings toward the null. Non-English–speaking patients were also ineligible for participation. Because EDs are disproportionately important sources of care for many without insurance, including many immigrants, refugees, and asylees, excluding these patients’ experiences creates a gap in fully understanding the experience of SO/GI collection in ED settings.

Further, under advisement of our stakeholder advisory board, we decided against collecting follow-up surveys from patients who declined to provide SO/GI information to registrars and nurses. Although this was a small proportion of patients with not enough statistical power to include in analyses, they may have had important contributions to understanding experiences of comfort and satisfaction with care provided in the ED.

A final limitation was that we could not mandate SO/GI collection by registrars and nurses; consequently, a substantive proportion (88%) of patients were not asked their SO/GI information. Because we did not investigate reasons why ED staff did not ask some patients for SO/GI information and our IRB approval did not permit us to analyze demographic information about eligible but unenrolled patients, we cannot know for sure if systematic bias occurred in SO/GI reporting among ED patients (eg, if ED staff used contextual clues to decide whether to
ask patients for SO/GI information). However, less than 0.001% of patients of whom SO/GI was asked declined to provide this information, and “declined” patients did not differ significantly from “asked” patients. Because we achieved a priori sample sizes, it is unlikely that this affected our major finding as we found no systematic biases in data collection other than staff inclination to collect data. Although our results would be more robust if more patients had SO/GI collected, every method of analysis resulted in SGM patients demonstrating significantly better CCAT scores during written collection vs verbal collection. Implementation research is necessary to explore factors affecting routing SO/GI collection in a busy clinical setting.

Future Research
Understanding the preferences of the most vulnerable patients, including transgender and SGM patients with mental health diagnoses, is particularly important. Future research should examine patient preferences about SO/GI collection and utilization, specifically among communities we were unable to survey in our study.

Because a program is only as good as its implementation, future research should examine how best to implement SO/GI collection while examining community-, hospital-, and staff-level factors. Providing flexible and adaptable guidance to hospitals, along with training and technical assistance, will help elucidate how to implement SO/GI collection effectively in a variety of ED settings.

Conclusion
In summary, few patients overall stated that they would refuse to provide SO/GI when asked in the ED (see Tables 8 and 9), in contrast to providers’ beliefs that patients would refuse to provide SO/GI information. Both patients and providers indicate nonverbal self-report as a comfortable and appropriate method of SO/GI information collection. Despite excluding both patients who do not define themselves by one particular SO/GI category and SGM patients admitted to the ED with mental health diagnoses, our results support existing literature that suggests that patients who are asked about SO/GI do not have lower satisfaction than Blank Field patients.
ED clinicians and leadership will find these results particularly useful as many move toward routine collection of SO/GI in the ED. But, even though the findings indicate that patients report more comfort and satisfaction with their care during self-report SO/GI information collection, organizational factors must be considered when implementing SO/GI collection. Ensuring that patients, patient advocates, clinicians, and ED staff are all included from the beginning planning stages is critical to making the implementation of standard SO/GI collection a success.

Future research should examine the experiences and preferences of those SGM patients who are most in need of sensitive, patient-centered care in the ED. Additionally, research examining how community, hospital, and staff factors influence implementation of SO/GI collection is critical to ensuring successful implementation throughout the United States.
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**Appendix 1. Study Team and Stakeholder Advisory Board Members**

**Study Team**

Laura Vail, MS (Co-Investigator): Laura Vail has a MS in Health Sciences Informatics from the Johns Hopkins School of Medicine. She currently serves as a Programmer Analyst with the Armstrong Institute for Patient Safety and Quality, providing front end data management, website, and vendor relationship support to nationwide projects promoting safety culture improvement, safe surgery, and preventing ventilator associated events. Her interests include the role of IT in patient safety improvement, harm reduction, and sharing data with frontline clinicians.

Claire Snyder, PhD (Co-Investigator): Claire Snyder, PhD, is Associate Professor of Medicine, Oncology, and Health Policy & Management. Her research focuses on incorporating the patient perspective to improve health care and outcomes. Dr. Snyder has received funding from the National Institutes of Health, American Cancer Society, Patient-Centered Outcomes Research Institute and other sources to integrate patient-reported outcomes in clinical care. She is the President-Elect of the International Society for Quality of Life Research.

Susan Peterson, MD (Co-Investigator): Dr. Peterson received her undergraduate degree from the University of Pennsylvania and medical degree from the Johns Hopkins University School of Medicine. In 2009, she began her residency in the Department of Emergency Medicine at Johns Hopkins and became chief resident in 2011. In 2012-2013 Dr. Peterson completed the Armstrong Institute Resident Scholars Program to further develop skills in patient safety and quality improvement. From 2012-2013, Dr. Peterson chaired the Housestaff Patient Safety and Quality Council completing a successful housestaff driven quality improvement project. Dr. Peterson continues to serve as a faculty advisor to this council. Dr. Peterson is co-director of the
resident quality improvement curriculum in the Department of Emergency Medicine and is leading research efforts related to both quality improvement and disparities. She is faculty in the Department of Emergency Medicine and the Armstrong Institute at Johns Hopkins.

Danielle German, PhD, MPH (Co-Investigator): Dr. German is an assistant professor at Johns Hopkins Bloomberg School of Public Health in the department of Health, Behavior and Society. She is also co-director of the MHS program in Social Factors. Her research uses qualitative and quantitative methods to understand and address the social context of health behavior, with particular emphasis on issues related to urban health, HIV transmission, drug use and mental health, and SGM health. She also spends a lot of time working to understand and address the HIV epidemic in Baltimore, and particularly the disproportionately high rates of HIV among MSM of color, African Americans, and drug users in the community. Dr. German received her MPH from Emory University Rollins School of Public Health and her PhD from Johns Hopkins Bloomberg.

Eric Schneider, PhD (Co-Investigator): Dr. Schneider is an epidemiologist and Assistant Professor of Surgery at the Johns Hopkins School of Medicine. His work focuses on patient outcomes with a particular focus on injury to the Central Nervous System (CNS). Dr. Schneider, who received his PhD from the Johns Hopkins Bloomberg School of Public Health, has studied disparities in care and patient outcomes in a variety of settings.

Jay Schuur, MD, MHS (Co-Investigator): Dr. Schuur is a practicing emergency physician with a research focus on health care quality and policy. He is the Vice Chair of Quality and Safety and Chief of the Division of Health Policy Translation for the Department of Emergency Medicine of the Brigham and Women’s Hospital and an Assistant Professor of Medicine (Emergency) at Harvard Medical School.

Anju Ranjit, MBBS, MPH (Co-Investigator): Dr. Ranjit is a physician from Nepal. She received an MPH from the Johns Hopkins Bloomberg School of Public Health and was a Sommer Scholar focusing on women’s and reproductive health. Previously, she worked for two years as a medical officer and medical superintendent at a government district hospital in Syangja, Nepal. She has served with the Elizabeth Glaser Pediatrics AIDS Foundation; Maiti Nepal, an anti-
human trafficking NGO; and Project for a Village, an NGO building self-sustainable communities in Nepal. During her time at Johns Hopkins she conducted a surgical epidemiology survey in Nepal. Dr. Ranjit has also pioneered the "TEJ Initiative" with Project for a Village, geared towards providing leadership training for young girls in Nepal. Her professional interests are surgical outcomes research for women, global women health, healthcare and health education for women.

Brandyn Lau, MPH, CPH (Principal Investigator): Brandyn Lau is an Instructor in Surgery and Health Sciences Informatics at the Johns Hopkins University School of Medicine. As a clinical informatician, his primary research interest is the use of health information technology to improve care quality and safety for hospitalized patients. A member of the SGM Working Group at the Johns Hopkins Bloomberg School of Public Health, Brandyn is working with other leaders in the field to develop course curricula on SGM health.

Adil Haider, MD, MPH, FACS (Principal Investigator): Dr. Haider is the Kessler Director of Brigham and Women's Hospital Center for Surgery and Public Health. He is a trauma surgeon and was previously Associate Professor of Surgery, Anesthesiology and Health Policy and Management at Johns Hopkins. At Hopkins, he pioneered the use of several innovative methods for data analytics, and was one of the first scientists to demonstrate major race and insurance-based disparities in survival after trauma. As PI of the EQUALITY study, he hopes to bring similar attention to disparities among SGM patients and help improve the patient centeredness of their care. Dr. Haider has published more than 125 scientific publications and has received numerous awards for his research, including the prestigious Jacobson award. He has received research funding from the National Institutes of Health, the American College of Surgeons, and the Patient Centered Outcomes Research Institute.

Rachel Adler, ScD, RD (Project Director): Rachel Adler, ScD, RD is a Senior Project Manager at CSPH. Dr. Adler is passionate about improving the lives of individuals and communities, and uses her training in social, environmental, and policy determinants of health and health behaviors to manage the Emergency Department Query for Patient-Centered Approaches to Sexual Orientation and Gender Identity (EQUALITY) Study. She brings to the center a strong
background in mixed methods and community-based research. Dr. Adler has partnered with local and national organizations for research and to advocate for policy change.

Omar Harfouch, MD, MPH (Post-Doctoral Research Fellow): Omar Harfouch graduated from medical school from the Saint Joseph University in Beirut, Lebanon. He received his masters of public health from the Johns Hopkins Bloomberg School of Public Health. He is currently the vice-president of the Lebanese Medical Association for Sexual Health. He is interested in advancing research and health outcomes among SGM populations both in the United States and globally. He has joined the EQUALITY team knowing that this study will ensure best care to SGM patients.

Danielle Pelaez (Senior Research Assistant): Danielle's interests lie in the intersection of public health, human rights, and social justice, and specifically include SGM and Latino health, harm reduction, and HIV/AIDS. Prior to joining the EQUALITY team, Danielle was a Program Officer at FHI 360 with the LINKAGES project, a USAID-funded global HIV project serving key populations. She volunteered with HIPS, a DC-based harm reduction organization conducting HIV outreach and needle exchange with street-based sex workers, transgender people, and people who inject drugs. Danielle received a BA in International Affairs with concentrations in Global Public Health and International Development from the George Washington University in Washington, DC. She expects to begin an MPH program specializing in community health next year.

SAB Members

Adrian Sandra Dobs, MD, MHS: Adrian Sandra Dobs, M.D., M.H.S. is a professor of Medicine and Oncology. Her personal research interest has focused on sex hormone abnormalities, and how they relate to chronic diseases. She has published in the field of endocrinology and transsexual health. As a trained epidemiologist, she has led multiple clinical research projects funded by both NIH and industry. Her expertise is in epidemiologic, patient-oriented and clinical trials research.

Asa Keiswetter, MS, RN, ACRN
Baligh Yehia, MD, MPP, MSHP: Baligh R. Yehia, MD, MPP, MSHP is an Assistant Professor in the Division of Infectious Diseases at the University of Pennsylvania and Director of the Penn Medicine Program for Lesbian, Gay, Bisexual, and Transgender (SGM) Health. Dr. Yehia’s main research focuses on evaluating health outcomes in individuals with HIV infection, with an emphasis on the HIV care continuum (HIV diagnosis, linkage to care, retention in care, prescription of antiretroviral therapy, and viral suppression); and on interventions aimed at improving the healthcare environment for SGM populations. He has led multiple NIH and industry funded clinical research projects. Dr. Yehia is actively involved in organized medicine, contributing to the development of health policy on access to healthcare, performance measurement, and public health. He is immediate past Chair of the American Medical Association SGM Advisory Committee.

Barbara Warren, Psy D: Barbara E. Warren Psy.D., is Director for SGM Programs and Policies in the Office for Diversity and Inclusion of the Mount Sinai Health System in NYC where she is leading the system wide implementation of HRC’s and the Joint Commission’s guidelines for SGM culturally and clinically competent health care. She previously served as Distinguished Lecturer and Director, Center for SGM Social Science and Public Policy at Hunter College, City University NY. For over 21 years, Dr. Warren served on the senior management team of the Lesbian, Gay, Bisexual and Transgender Community Center of New York City, where she was the inaugural Director for the Center’s behavioral health programs and as Director for Planning and Research was responsible for the Center’s local and national health policy and government relations initiatives. Dr. Warren has over 30 years of experience in the development and implementation of substance abuse, mental health, HIV, and public health programs in community settings.

Carl Streed, Jr. MD: Carl G. Streed Jr, M.D. earned his medical degree from the Johns Hopkins University School of Medicine. While at Hopkins, he advocated for the inclusion of SGM health in the curricula of the Schools of Medicine, Nursing, and Public Health, increased the visibility and value of the SGM community through community advocacy, and achieved transgender equity in health insurance coverage. Nationally, Dr. Streed served as the American Medical
Student Association SGM Policy Coordinator & Liaison, advised the American Medical Association Board of Trustees as a member of the SGM Advisory Committee, and served on the board of GLMA. Dr. Streed’s efforts to improve the health and well-being of SGM individuals and communities have earned him the Johns Hopkins Diversity Leadership Award, the AMSA James Slayton National Award for Leadership Excellence, AMA Foundation Excellence in Medicine Award, the Erickson-Zoellers Point Foundation Scholarship as well as recognition by the White House.

Carlisle Harvey, Sr.: Carlisle Harvey, Sr is a 50-year-old gay African American who has lived with HIV for 29 years. He is active in HIV/AIDS advocacy locally and has served on a number of sub-committees and CABs for HIV/AIDS. He also currently serves as the vice-chair of the Greater Baltimore HIV Health Services Planning Council.

Carlton R. Smith: Carlton R. Smith has worked in SGMQ issues for many years. He has served on various committees providing outreach, leadership and representing the needs of SGM people at the local, state and federal levels. Carlton places emphasis on the African American SGMQ community, specifically men who have sex with men (MSM). He is the community co-chair of the MSM Response Team convened by the Maryland Department of Health and Mental Hygiene and a member of Maryland Moving Forward Network, the National Black Gay Men’s Advocacy Coalition and the National Minority AIDS Council (NMAC), to name a few. He is the former vice president of the GLCCB (Gay & Lesbian Community Center of Baltimore. Carlton is now the JHU CFAR CPAB nomination’s chair. He is one of the founding members of The Center for Black Equity-Baltimore, under the membership of the national organization, The Center for Black Equity (CBE), now in its 12th year of operation.

Cheri Wilson, MA, MHS, CPHQ: Cheri C. Wilson is an Assistant Scientist and Program Director for the Culture-Quality-Collaborative (CQC) and the Clearview Organizational Assessments-360 (COA360) in the Hopkins Center for Health Disparities Solutions at the Johns Hopkins Bloomberg School of Public Health. She serves on national, state, and local health disparities committees and is a member of GLMA (Health Professionals Advancing SGM Equality) and the Cultural Competence and Education Outreach Committee. In addition, she conducts trainings
and educational sessions for clinical staff, students, and community members on the issues of cultural competency, overcoming language barriers, unconscious bias in health care, and health and healthcare disparities. As a public health practitioner and faculty member, her work focuses primarily upon the intersection between cultural competency and health disparities and patient safety and healthcare quality. She is particularly interested in health disparities as it relates to racial/ethnic, language, and gender and sexual minorities and the provision of culturally competent patient-centered care in language understandable to all patients.

Daniel Brotman, MD: Dr. Daniel Brotman is the director of the Hospitalist Program at Johns Hopkins Hospital and a Professor of Medicine at Johns Hopkins University. He directed the Hospital Medicine Fellowship Program at the Cleveland Clinic Foundation and was involved in research in perioperative medicine, thrombosis, and cardiovascular complications of hospitalization. Dr. Brotman came to Johns Hopkins in 2005 to direct the Hospitalist Program and has remained clinically active in Hospital Medicine and inpatient consultative medicine. He continues to do research focused on Hospital Medicine, with an emphasis on quality improvement, thrombosis, perioperative medicine, and cardiovascular disease. He is a Senior Deputy Editor of the Journal of Hospital Medicine, an Associate Editor of the Cleveland Clinic Journal of Medicine and an Editorial Consultant for The Lancet.

Edward J. Callahan, Ph.D.: Edward J. Callahan, Ph.D. is currently Associate Dean for Academic Personnel and Professor of Family and Community Medicine at the University of California, Davis School of Medicine. Dr. Callahan led the Task Force for Inclusion of Sexual Orientation and Gender Identity in the Electronic Health Record (EHR) for a five year period as UC Davis became the first Academic Health System in the country to incorporate sexual orientation and gender identity into its EHR. Members of the Task Force integrated a four year competency based component on SGM health into the medical student curriculum, formed a staff support group (GLEE) and the institution achieved Leader in SGM Health Equality for four years in a row. He now Chairs the Dean’s SGMIQQ Advisory Committee which is committed to making the UCDHS atmosphere more inclusive for sexual minority patients, staff, learners and faculty. Dr. Callahan
is now exploring the use of the electronic record in improving quality of care for SGM patients.

Emma "Beth" McGinty, PhD, MS: Dr. McGinty's research focuses on how health and social policies affect mental health and substance use. She is particularly interested in studying issues at the intersection of healthcare and social policy. One of her primary research interests is integration of behavioral, somatic and social services for people with mental illness and addiction. She also studies policy issues at the juncture of behavioral health and criminal justice policy. In addition, Dr. McGinty has an overarching interest in policy communication, public opinion, and message framing. She conducts public opinion and experimental message framing research focused on mental illness, addiction, stigma, and violence.

Harvey Makadon, MD: Harvey J. Makadon, MD is a Professor of Medicine at Harvard Medical School and Director of the National SGM Health Education Center at The Fenway Institute, a division of Fenway Health, Boston. He teaches about how to improve access to quality care for lesbian, gay, bisexual and transgender people in health care settings around the country and directs a HRSA funded cooperative agreement to improve cultural competence in SGM health in community health centers. Dr. Makadon is the lead editor of The Fenway Guide to Lesbian, Gay, Bisexual, and Transgender Health, published by the American College of Physicians in 2008. In addition to writing numerous articles and chapters related to SGM health, he served on the Advisory Committee on the Advisory Committee to the Institute of Medicine of the U.S. National Academy of Sciences in the preparation of The Health of Lesbian, Gay, Bisexual, and Transgender People: Building a Foundation for Better Understanding in March 2011.

Hilary Meyer, JD: Hilary Meyer is the Director of National Programs at Services & Advocacy for GLBT Elders (SAGE). In this position, Meyer oversees projects such as SAGEWorks, SAGE’s workforce development program, and SAGE’s National Resource Center on SGM Aging, the U.S. Dept. of Health and Human Services-funded resource center focused on improving the quality of services and supports offered to lesbian, gay, bisexual and transgender older adults nationwide. Meyer provides leadership and oversight for the national programs and the activities of its staff and partner organizations; guides content and tools development; and,
provides cultural competency trainings, media interviews and thought leadership on a number of issues related to SGM aging. Meyer earned her J.D. from Rutgers School of Law – Newark and graduated magna cum laude and With Honors in Psychology from Colgate University.

Ignatius Bau, JD: Ignatius Bau is an independent health policy consultant, highlighting issues of patient-centeredness and equity in the implementation of national health care reform. He had prior positions as program director at a statewide health foundation, policy director at a national minority health advocacy organization, and immigration attorney at a civil rights legal organization and has served on the board of directors of Funders for Lesbian, Gay, Bisexual, Transgender, and Queer Issues, and the Gay Asian Pacific Alliance Community HIV Project. Bau also has served as a member of expert advisory groups for the Institute of Medicine (IOM), National Quality Forum, Joint Commission, federal Office of Minority Health, Office of National Coordinator for Health Information Technology, Centers for Disease Control and Prevention, and National Institutes of Health. He chaired the IOM workshop on the collection of sexual orientation and gender identity data in electronic health records

Jane Hill, MPH: Jane E. Hill is currently Director of Patient Relations and Patient and Family Advisory Councils at The Johns Hopkins Hospital. In this role, Ms. Hill’s objectives are to support the inclusion of each individual and caregiver voice and assure it is heard, respected, and integrated in providing clinical and support services. Ms. Hill’s prior experience was in Boston, MA where she directed a statewide geographic capitation pilot for improved financial management of population health. She was also Board representative to the Greater Boston Forum for Health Action, Inc. Upon relocating to Baltimore, Ms. Hill was a consultant to The Alliance for Responsible Health Policy, supporting a state-wide leadership coalition to identify and develop strategic and affordable options for the medically uninsured and underinsured populations. Ms. Hill received her MPH degree from Yale University and her undergraduate degree magna cum laude from University of Pennsylvania.

Jean-Michel Brevelle: Jean-Michel Brevelle has been an activist fighting for the rights of SGMQ people and people living with HIV for over 30 years. As an out and visible, gay-identified, transgender man, he is familiar with the challenges experienced by sexual and gender
minorities, as well as the resiliency and opportunities for success within these communities. He has worked with AIDS Project Los Angeles, the National Association of People Living With AIDS, and Equality Maryland. He currently works with the Maryland Department of Health and Mental Hygiene, at the Center for HIV Prevention and Health Services. He devotes much of his time to providing capacity building training and technical assistance to improve HIV prevention services for SGMQ communities and people living with or at risk for HIV. He is also a co-founder of the Transgender Action Group and the chair of the Transgender Response Team. He is the proud parent of an over-achieving daughter and the delighted grandparent of a very self-possessed 4 year old grandson. He currently lives in Harford County with a slightly grumpy cat named Velcro.

Kellan Baker, MPH, MA: Kellan Baker is a Senior Fellow with the SGM Research and Communications Project at the Center for American Progress. At CAP, Kellan works with the federal Executive and Legislative Branches on a range of SGM health and data collection issues and directs the SGM State Exchanges Project, which partners with SGM and consumer health advocates in numerous states to ensure that the benefits of health reform reach SGM communities. He is an affiliated faculty member for SGM health policy at the Center for Population Research in SGM Health at the Fenway Institute and has consulted on SGM health and health disparities with organizations such as The Joint Commission and the Open Society Foundations. Kellan holds a BA with high honors from Swarthmore College and an MPH and MA from George Washington University.

Mara Keisling: Mara Keisling is the founding Executive Director of the National Center for Transgender Equality. Mara is a transgender-identified woman and a parent. As one of the nation’s leading voices for transgender equality, Mara has appeared on news outlets and is regularly quoted in hundreds of national and local print and broadcast media. Mara is a graduate of Penn State University and did her graduate work at Harvard University in American Government. Mara has almost twenty-five years of professional experience in social marketing and opinion research.
Monica Stevens Yorkman: Monica is a leading activist and advocate for change in the Baltimore community. Passionately committed to building safe spaces for underserved communities, Monica is the founder and director of Sistas of the “T”, a community group for transgender women. She is also the founder of Beta Mu Beta, a sorority for transgender women that celebrates unity, selfless service, and personal responsibility. Monica’s activism has led her to partner with Equality Maryland, National Alliance on Mental Illness, GLASS Baltimore and Hearts and Ears. Monica also directed Transwoman Inc. for a short period of time. A proud 60 year-old parent of two, and grandparent of three. Monica likes playing music and writing poetry (especially erotica). Her poetry has appeared in several magazines, journals and anthologies.

Paul Krieger, MD: Dr. Paul Krieger is a physician in the Department of Emergency Medicine at Mount Sinai Beth Israel Medical Center (MSBI). He is a member and former chair of the SGM committee at MSBI and a member of the diversity council. Dr. Krieger is a member of the Society for Academic Emergency Medicine’s Academy for Diversity and Inclusion and one the charter members of the Academies SGM committee. His academic interests include graduate medical SGM health curriculum development and education, particularly in the field of emergency medicine.

Paula Neira, JD, BSN: Paula M. Neira is a nurse, lawyer, and former naval officer. She graduated with distinction from the United States Naval Academy in 1985. As a Surface Warfare Officer, she participated in mine warfare combat operations during the Gulf War. Upon being honorably discharged from the Navy, she began her nursing career. She is a certified emergency nurse, specializing in adult emergency care and trauma resuscitation. For the past six years, she has served as the nurse educator in the Department of Emergency Nursing at The Johns Hopkins Hospital. In addition to nursing, she has been a member of the Maryland Bar since 2001. As a lawyer and veteran advocate, she helped lead the efforts to repeal the Don’t Ask, Don’t Tell policy. A recognized national expert on SGM-military issues, she is one of the leading experts on transgender military service in the United States.

Robert Espinoza, MPP: Robert Espinoza is the Senior Director for Public Policy and Communications at SAGE, the country’s largest organization focused on improving the lives of
SGM older people. In this capacity, he established and guides SAGE’s national advocacy and education program, which includes a federal program based in Washington, DC, 27 SAGE affiliates and three national websites. His communications awards have received two GLAAD distinctions for excellence in marketing, and four awards from the International Academy for the Visual Arts. A regular commentator for The Huffington Post, Robert’s writing has appeared in Aging Today, Tikkun Magazine, New American Media, NextAvenue.com and Public Policy & Aging Report, among others.

Shane Snowdon, MA: Shane Snowdon, MA, currently a visiting scholar at Harvard, created and headed the SGM Health & Aging Program of the Human Rights Campaign, the largest SGM organization in the country. She also founded and led for 13 years the Center for SGM Health and Equity at the University of California San Francisco, the nation’s first SGM office in a healthcare or health education setting. She also served as Project Adviser for The Joint Commission’s SGM Field Guide (2011), and she has written extensively on SGM health. She is the author most recently of Recommendations for Enhancing the Climate for SGM Students & Employees in Health Professional Schools (2013).

Tonia Poteat, PhD, MPH, PA-C: Tonia Poteat is an Assistant Professor in the Department of Epidemiology at Johns Hopkins Bloomberg School of Public Health where she teaches “Introduction to Sexual Orientation, Gender Identity, and Public Health.” Her research interests include HIV prevention and care, SGM health, and transgender health disparities. She sits on the editorial board of SGM Health as well as the Education Committee of the Gay and Lesbian Medical Association. Dr. Poteat has worked as a Physician Assistant for 18 years, devoting her clinical practice to providing medically appropriate and culturally competent care to SGMQ communities and people living with HIV.

Vann Michael: Vann Michael is an active advocate and activist in the Trans* community. He currently serves as president of Black Transmen, Inc. (BTMI MD/DC). BTMI MD/DC is the first national non-profit organization of African-American transmen solely focused on acknowledgement, social advocacy, and empowering transmen with resources to aid in healthy
transition. Mr. Michael also sits on the steering committee of the Maryland Coalition of Trans Equality and facilitates a monthly support group for transmen at the GLCCB.
Appendix 2. Qualitative interview guides

EQUALITY Phase 1 Interview Guide

Intro: Thank you for taking the time to meet with me today. My name is and today I’d like to talk with you about your experiences with healthcare and your perspective on providing sexual orientation and gender identity information. First, I’d like to hear about your understanding of the phrases, sexual orientation and gender identity. When I ask about sexual orientation, what does that mean to you? [When I talk about sexual orientation, I am referring to someone’s attraction sexually or romantically to specific genders or sexes. For instance, heterosexual, bisexual, and homosexual are all sexual orientations. A person’s gender identity, however, refers to a person’s psychological identification as male or female. For example, male, female, and transgender are all types of gender identities. Transgender people are people who experience or express their gender differently from what they have been assigned at birth.] Please remember that you are free to discontinue the interview at any time and can decline to answer any question.

I. Previous Perceptions of SO/GI Information Collection

Interviewer: First, I’d like to ask you about your prior experiences with healthcare settings.

1. Have you ever received care in an emergency department? Please describe. [Suggested probes, especially if participant answers no to above question: If you have not personally received care in the emergency department, have you ever accompanied someone who received care in the ED? Have you heard any stories from people you know who have received care in the ED?]
2. Have you ever been asked directly about your sexual orientation and your gender identity in the ED—verbally, using a form, or otherwise? Please describe. What did you think about this? (Explore positive and negative aspects and ways to improve the process of gathering this information).

b) If not, how likely do you think it is that the ED healthcare providers were aware of your sexual orientation and/or gender identity? What makes you think this?

c) How would you feel if you were asked about your SO or GI? (Especially for cisgender/heterosexual participants)

3. Have you ever been asked directly in the ED about your relationship status (married, single, etc.)—verbally, using a form, or otherwise? Please describe. What did you think about this? (Explore positive and negative aspects and ways to improve the process).

4. Have you ever kept your sexual orientation and/or gender identity private from a healthcare provider, either in the ED or other healthcare settings? Why?

b) Have you ever experienced discrimination in the ED because of your SO/GI? Were there any experiences in the ED where you felt that providers ignored you or offended you because of your SO/GI?

c) Have you ever delayed care for a health problem because you did not want to disclose SO/GI information to a provider? Have you ever specifically avoided an ED for the same reason?

5. Have you ever been asked directly about other sensitive patient information, such as your income or religion, in the ED—verbally, using a form, or otherwise? Please describe. What did you think about this?
6.  
   a) In what ways was your SO/GI relevant to your care experience in the ED? Can you provide an example of a positive event that occurred during this visit related to your SO/GI? Can you provide an example of a negative event that occurred during this visit related to your SO/GI?  
   b) In what ways has your SO/GI been relevant to care experiences in other healthcare settings (for example, in the primary care office)? Can you provide an example of a positive event that occurred during one of these visits related to your SO/GI? Can you provide an example of a negative event that occurred during one of these visits related to your SO/GI?  

II. Barriers and Facilitators to Collecting SO/GI Information  

*Interviewer:* These next questions ask about different ways to collect information about sexual orientation and gender identity in emergency departments.  

1.  
   a) What are the benefits of healthcare providers in the ED knowing information about patient sexual orientation?  
   b) What are the risks of healthcare providers in the ED knowing information about patient sexual orientation?  

2.  
   a) What are the benefits of healthcare providers in the ED knowing information about patient gender identity?  
   b) What are the risks of healthcare providers in the ED knowing information about patient gender identity?
3. What concerns would you have about providing SO/GI information in the ED?

FOLLOWING PROBES:
   a) Do you feel safe providing SO/GI information in the ED?
   b) What would help you feel safe providing this information?

4.
   a) What are some things that make it difficult to feel comfortable providing information about SO/GI?
   b) What would help you feel more comfortable? (Probes: setting of the ED; characteristics of provider; relevance to healthcare need)

5.
   a) In what ways is privacy a concern in providing sexual orientation and gender identity information?
   b) What would help you feel that your privacy has been protected?
   c) Are you concerned about SO/GI information being recorded in the electronic medical record once disclosed to a provider?

6.
   a) Do you think that ED providers are prepared to discuss issues about your SO or GI?
   b) What would ED providers need to know to provide better care?

III. Preferred Means for Collecting SO/GI Information

Interviewer: I’m going to describe to you a few possible ways to collect this information. For each one, please tell me your thoughts.
1. Probes for each interviewer—describe, then ask first thoughts, positive aspects, negative aspects, and how to improve or make this method most comfortable:
   a) Paper form?
   b) Fill in this information online on a computer?
   c) Verbally asked by ED doctor?
   d) Verbally asked by ED nurse?
   e) Verbally asked by a registrar (person at front desk who records general intake information) in the ED?
   f) Other ways you might suggest?

2. What would be your preferred option for providing SO/GI information out of the above examples? (Explore reasons for chosen option and concerns about other options.)

3. How would you feel about family members, friends, or partners who accompany you to the ED providing your SO/GI information on your behalf in the event that you are unable to provide this information yourself?

4. How would you feel about providing information about your sexual behavior (for example, being asked about with whom you have sex, or if you have sex with males, females, or both) compared to your sexual orientation (for example, being asked whether you identify as lesbian, gay, bisexual, or heterosexual)? Would you prefer being asked about your sexual behavior or your sexual orientation?

Thank you so much for your time; we really appreciate all of your responses.

IV. Demographic Information
   1. What is your race?
      Black or African
      American White or Caucasian
      Asian
2. What is your ethnicity?
   - Hispanic/Latino/Latina
   - Not Hispanic/Latino/Latina

3. Do you identify as
   - Male
   - Female
   - Female-to-Male/Transgender Male/Transman
   - Male-to-Female/Transgender Female/Transwoman
   - Genderqueer, neither exclusively male nor female
   - Intersex
   - Other (please specify)
   - Decline to answer (please explain why)

4. What sex were you assigned at birth?
   - Male
   - Female
   - Decline to answer (please explain why)

5. Do you identify as
   - Lesbian, gay, same gender loving, or homosexual
   - Bisexual
   - Straight or heterosexual
   - Asexual
   - Queer
   - Something else
   - Don’t know
Equality Study Provider Interview Guide

Intro: Thank you for taking the time to meet with me today. My name is and today I’d like to talk with you about your experiences working in the emergency department and your perspective on collecting sexual orientation and gender identity information from patients. First, I’d like to hear about your understanding of the phrases, sexual orientation and gender identity. When I ask about sexual orientation, what does that mean to you? [When I talk about sexual orientation, I am referring to someone’s attraction sexually or romantically to specific genders or sexes. For instance, heterosexual, bisexual, and homosexual are all sexual orientations. A person’s gender identity, however, refers to a person’s psychological identification as male or female. For example, male, female, and transgender are all types of gender identities. Transgender people are people who experience or express their gender differently from what they have been assigned at birth.] Please remember that you are free to discontinue the interview at any time and can decline to answer any question.

I: Previous Perceptions of SO/GI Information Collection

Interviewer: First, I’d like to ask you about your prior experiences with patient sexual orientation and gender identity information in the emergency department setting.

1. What have been your experiences with LGB and T patients in the ED?

2. Can you provide an example of a positive event that occurred during a patient visit related to your understanding of their SO/GI? Can you provide an example of a negative event that occurred during a patient visit related to your understanding of their SO/GI?

3. How inclusive and sensitive do you feel the emergency department setting is for lesbian, gay, bisexual, and transgender patients? (For example, does your ED have brochures for SGM patients, training for ED providers, or rainbow pins on white coats).
4.
   a) Have you ever collected patient SO/GI information in the emergency department? Please describe.
   b) Have you ever collected information in the emergency department about a patient’s relationship status? Please describe.
   c) Have you ever recorded SO/GI information in the electronic medical record?
5.
   a) In what ways is patient sexual orientation relevant to your provision of healthcare?
   b) In what ways is patient gender identity relevant to your provision of healthcare?

   *Probe if not discussed:* Do you think it is important for an ED provider to know a patient’s gender identity? What about a patient’s sexual orientation?

II. Barriers and Facilitators to Collecting SO/GI Information

   *Interviewer: These next questions ask about different ways to collect information about sexual orientation and gender identity in emergency departments.*

1.
   a) What are the benefits of healthcare providers in the ED knowing a patient’s sexual orientation?
   b) What are the risks of healthcare providers in the ED knowing a patient’s sexual orientation?

2.
   a) What are the benefits of healthcare providers in the ED knowing a patient’s gender identity?
b) What are the risks of healthcare providers in the ED knowing a patient’s gender identity?

3. What concerns do you have about collecting sexual orientation and gender identity information in the ED?

4.
   a) What are some things that make it difficult to feel comfortable collecting information about SO/GI?
   b) What would help you feel more comfortable? (Probes: setting of the ED; characteristics of patient; relevance to healthcare need.)

5. How is your workflow affected by collecting SO/GI information? How could this be integrated into your workflow?

6. In what ways could patient privacy be a concern in collecting SO/Gi information? What would help you to feel that patient privacy had been protected?

7.
   a) How prepared do you feel to address issues of SO/GI?
   b) How prepared do you feel your colleagues in the ED are to address these issues?
   c) What would help you to feel better prepared?

Probe if not discussed: How would you feel about asking for information about sexual behavior (for example, asking about with whom the patient has sex) compared to sexual orientation (for example, asking patients if they identify as lesbian, gay, bisexual, or heterosexual)? Would you prefer asking about sexual behavior or sexual orientation?

III. Preferred Approaches

Interviewer: I’m going to describe to you a few possible ways to collect this information. For each one, please tell me your thoughts.
1. Probes for each interviewer—describe, then ask first thoughts, positive aspects, negative aspects, and how to improve or make this method most comfortable:
   a) Paper form?
   b) Fill in this information online on a computer?
   c) Verbally asked by ED doctor?
   d) Verbally asked by ED nurse?
   e) Verbally asked by a registrar in the ED? f) Other ways you might suggest?

2. What would be your preferred option for collecting sexual orientation and gender identity information out of the above examples? (Explore reasons for chosen option and concerns about other options.)

Thank you so much for your time; we really appreciate all of your responses.

IV. Demographic Information

1. What is your role in the ED?
   Nurse
   Attending Physician
   Resident Physician
   Physician Assistant
   Nurse Practitioner
   Other Staff

2. What is your race?
   Black or African
   American White or Caucasian
   Asian
   Multiracial
   American Indian or Alaska Native
   Native Hawaiian or other Pacific Islander
3. What is your ethnicity?
   Hispanic/Latino/Latina
   Not Hispanic/Latino/Latina

4. Do you identify as
   Male
   Female
   Female-to-Male/Transgender Male/Transman Male-to-Female/Transgender Male/Transwoman
   Genderqueer, neither exclusively male nor female
   Intersex
   Other (please specify)
   Decline to answer (please explain why)

5. What sex were you assigned at birth?
   Male
   Female
   Decline to answer (please explain why)

6. Do you identify as
   Lesbian, gay, same gender loving, or homosexual
   Bisexual
   Straight or heterosexual
   Asexual
   Queer
   Something else
   Don’t know
### National Patient Survey on Collection of Sexual Orientation and Gender Identity in the Emergency Department

January 2015

- Study Details -

**Note:** *This page may be removed when the questionnaire is sent to the client. However, it must exist in the version sent to OSD.*

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<tr>
<td>Project Director Name</td>
<td>Dan Faulkner</td>
</tr>
<tr>
<td>Team/Area Name</td>
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**Samvar**

(Include name, type and response values. “None” means none. Blank means standard demos. This must match SurveyMan.)

- **Xpatient:** 1=Heterosexual; 2=Lesbian; 3=Bisexual; 4=Gay; 5=Transgender
- **xPPP20065:** 1=yes; 2=no; 3=Blank Field; 4=refused
- **xPPP20063:** 1=Heterosexual or straight; 2=Gay; 3=Lesbian; 4=Bisexual; 5=other; 6=Blank Field; 7=refused

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SECTION 1: Prior Experiences in the Healthcare System

[Display]

Online Consent Form for EQUALITY STUDY

Thank you for continuing to be part of the KnowledgePanel®. This survey asks about PATIENT CENTERED APPROACHES TO COLLECTING SEXUAL ORIENTATION AND GENDER IDENTITY (SO/GI) INFORMATION IN THE EMERGENCY DEPARTMENT (ED) and is being conducted by researchers at Partners Healthcare (Brigham and Women’s Hospital) and Johns Hopkins Hospital. This survey is being conducted to understand patient preferred ways of collecting SO/GI in the emergency department.

As with all KnowledgePanel® surveys, your response to this survey, or any individual question on the survey, is completely voluntary. You will not be individually identified and your responses will used for analyses only.

If you have questions about your rights as a participant in this survey, or are dissatisfied at any time with any aspect of the survey, you may contact the KnowledgePanel Panel Member Support at 800-782-6899.

[CONTINUE]

(THIS IS A BUTTON THAT TAKES RESPONDENT TO SURVEY)
In this survey, we will ask you about sexual orientation and gender identity in healthcare. This survey is anonymous and will be used for research purposes only. It will take approximately 15 minutes to complete. Thank you for your time and participation.

If you do not know any of the terms below, please review them here. Definitions will also be provided throughout the survey.

**Sexual Orientation (for example: gay, lesbian, bisexual, straight, heterosexual):** A personal quality describing romantic and/or sexual attraction to others.

**Gender Identity (for example: male, female, transgender, genderqueer):** A person's sense and experience of their own gender, which may or may not be the same as their sex at birth.

**Primary Care Provider (for example: a doctor, family physician, physician assistant, nurse practitioner, internist):** A health professional or facility that provides routine healthcare, such as annual checkups.

**Emergency Room (ER, Emergency Department, ED):** A place at a hospital that specializes in the immediate care of patients without an appointment.

**Emergency Room Provider (for example: a doctor, physician assistant, nurse practitioner):** A health professional who works in a hospital emergency room and provides healthcare for patients who need immediate care without an appointment.

**Healthcare Provider (for example: a doctor, physician assistant, nurse practitioner):** A health professional who provides healthcare including examinations, diagnoses and treatments, includes primary care and emergency room providers.

**Registrar:** The person at the front desk of an emergency department who checks in the patient.
Q1. Do you have a regular primary care provider?

Yes.................................................... 1
No................................................... 2

Q1a. In the past 3 years, how often have you seen your primary care provider?

Zero times ....................................... 1
1 time .............................................. 2
2-4 times ......................................... 3
5-10 times .................................... 4
11 or more times......................... 5

Q1b. When you go to your regular primary care provider, have you ever been asked directly (on a paper or computer form, or out loud) about your sexual orientation?

Yes............................................... 1
No.................................................. 2
Q1c. When you go to your regular primary care provider, have you ever been asked directly (on a paper or computer form, or out loud) about your gender identity?

- Yes ................................................... 1
- No .................................................... 2
- Not sure........................................... 3

Q2. Have you ever been a patient in a hospital emergency room?

- Yes ................................................... 1
- No .................................................... 2

Q2a. During the past 12 months, how many times have you gone to a hospital emergency room about your own health?

- Zero times ....................................... 1
- 1 time .............................................. 2
- 2-4 times ......................................... 3
- 5 or more times................................. 4
[IF Q2=1]

[SP]

Q2b. During the past 5 years, how many times have you gone to a hospital emergency room about your own health?

- Zero times ....................................... 1
- 1 time .............................................. 2
- 2-4 times .......................................... 3
- 5 or more times............................... 4

[IF Q2=1]

[SP]

Q2c. When you were at the hospital emergency room, have you ever been asked directly (on a paper or computer form, or out loud) about your sexual orientation?

- Yes................................................... 1
- No.................................................... 2
- Not sure........................................... 3

[IF Q2=1]

[SP]

Q2d. When you were at the hospital emergency room, have you ever been asked directly (on a paper or computer form, or out loud) about your gender identity?

- Yes................................................... 1
- No.................................................... 2
Q3. Emergency room providers seemed uncomfortable caring for me.
Q4. Emergency room providers treated me as inferior.
Q5. Emergency room providers avoided me.
Q6. Emergency room providers refused me service.

Q7. I have delayed going to a primary care provider in the past due to my sexual orientation.
Q8. I have delayed going to an emergency room in the past due to my sexual orientation.
Q9. I have delayed going to a primary care provider in the past due to my gender identity.

Q10. I have delayed going to an emergency room in the past due to my gender identity.

[GRID, SP ACROSS]

Q11_17. Please indicate how strongly you agree or disagree with the following statements.

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<tr>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Neutral</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
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<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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</table>

Q11. Sometimes doctors care more about what is convenient for them than about their patients' medical needs.

Q12. Doctors are extremely thorough and careful.

Q13. I completely trust doctors' decisions about which medical treatments are best.

Q14. A doctor would never mislead me about anything.

Q15. All in all, I trust doctors completely.

Q16. It is important to me to have a doctor who identifies as lesbian, gay, bisexual or transgender.

Q17. It is important to me to have a doctor who cares for many lesbian, gay, bisexual or transgender patients.
Q18. If seeking care at an emergency room today, how would you answer the following questions?

Do you identify as:

Straight or Heterosexual ................. 1
Lesbian, Gay or Homosexual ........... 2
Bisexual ........................................... 3
Something else, please describe

[TEXT BOX] ..................................... 4
Don’t Know ..................................... 5
Decline to Answer (please explain)

[TEXT BOX] ..................................... 6

Q19. What is your gender identity?

Male ................................................ 1
Female ............................................. 2
Female-to-Male (FtM)/Transgender

Male/Trans Man ............................... 3
Male-to-Female (MtF)/Transgender

Female/Trans Woman .................... 4
Genderqueer, neither exclusively

male nor female ............................... 5
Not Listed, please specify [TEXT BOX] 6
Q20. What sex were you assigned at birth?

Male ................................................ 1
Female................................................ 2
Decline to Answer (please explain)
[TEXT BOX].............................................. 3
DOV RANDOM:
Logic: randomly assign respondents to one of the section order. If DOV_RANDOM=1 show section 2 first, then section 3; if DOV_RANDOM=2 show section 3 first then section 2.

Section 2, Section 3.............................. 1
Section 3, Section 2.............................. 2

SECTION 2: Sexual Orientation

Q21_26. For the next section, please indicate how strongly you agree or disagree with the following statements.

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<th>Somewhat disagree</th>
<th>Neutral</th>
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<td>1</td>
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</table>

Q21. It is important for my primary care provider to know my sexual orientation.
Q22. It is important for my emergency room provider to know my sexual orientation.
Q23. It is important for a primary care provider to know the sexual orientation of all their patients.
Q24. It is important for an emergency room provider to know the sexual orientation of all their patients.
Q25. I would be more willing to share my sexual orientation with healthcare providers now than 10 years ago.

Q26. I expect that I will be more willing to share my sexual orientation with healthcare providers in 10 years than I am now.

[GRID, SP ACROSS]

Q27. When I come to the emergency room, I would be willing to provide my sexual orientation in the following ways:

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>1</td>
<td>2</td>
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</table>

1. Entering information into an online form at home
2. Filling out a paper form
3. Filling out an electronic form at a computer kiosk
4. Using a mobile medical app on my cell phone
5. Answering a question asked by a registrar
6. Answering a question asked by a nurse
7. Answering a question asked by a doctor
8. Other [TEXT BOX]
Q28. When I come to the emergency room, I would most prefer to provide my *sexual orientation* by:

- Entering information into an online form at home ........................................ 1
- Filling out a paper form ................................................................. 2
- Filling out an electronic form at a computer kiosk .................................. 3
- Using a mobile medical app on my cell phone .................................... 4
- Answering a question asked by a registrar ............................................ 5
- Answering a question asked by a nurse ............................................. 6
- Answering a question asked by a doctor .......................................... 7
- Other [TEXT BOX] ........................................................................ 8
- None of the above ........................................................................... 9
Q29. If asked in a hospital emergency room, I am willing to provide my sexual orientation when:

<table>
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<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Neutral</th>
<th>Somewhat agree</th>
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1. the provider seems polite and non-judgmental.
2. the provider seems impolite and judgmental.
3. there are posters or signs welcoming lesbian, gay and bisexual patients.
4. I am assured of confidentiality (that my information will be kept private).
5. sexual orientation is documented the same as other questions about me (like age, race, etc.).
6. the law in my state prohibits discrimination based on sexual orientation.
7. there is NO law in my state which prohibits discrimination based on sexual orientation.
8. the hospital is associated with a religious group.
9. other patients can hear or see my response.
10. I am with a healthcare provider in a private space.
11. it is directly relevant to my health concern.
12. it is NOT directly relevant to my health concern.
13. I am told why this information is relevant to my healthcare.
14. I am told that this information will be used for research purposes.
15. I am told that sexual orientation is asked of every patient.
16. this information is asked along with asking about my sexual behaviors.
17. I am told this information will NOT be saved in my electronic medical record.
Q30. What would increase your willingness to provide your sexual orientation?

[RANDOMIZE RESPONSE OPTIONS]

[GRID, SP ACROSS; SPLIT QUESTIONS ON 2 DIFFERENT SCREENS]

Q31. Below are some potential benefits and risks of routinely asking all patients about their sexual orientation in the emergency room. How much do you agree or disagree with the following statements?

If sexual orientation is routinely asked of all patients in the emergency room, then:

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Neutral</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. healthcare providers gain a better understanding of me as a whole patient.
2. healthcare providers can better screen for diseases and conditions.
3. healthcare providers can better permit my partner to be involved in medical decision-making.
4. the hospital can better identify health needs specific to lesbian, gay, and bisexual patients.
5. researchers can better engage and recruit lesbian, gay, and bisexual patients.
6. it promotes inclusion of lesbian, gay, and bisexual patients.
7. I worry this information would be disclosed to my friends or family.
8. I am concerned that employers or insurance companies would have access to this information.
9. I would receive worse care.
10. I would receive better care.
11. I would feel uncomfortable providing my sexual orientation.
12. I would be offended.
13. I would refuse to provide my sexual orientation.

[LARGE TEXT BOX]
Q32. Please list any additional benefits of routinely asking all patients about their sexual orientation here.

[LARGE TEXT BOX]
Q33. Please list any additional risks of routinely asking all patients about their sexual orientation here.

SECTION 3: Gender Identity

[GRID, SP ACROSS]
Q34. For the next section, please indicate how strongly you agree or disagree with the following statements.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Neutral</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. It is important for my primary care provider to know my gender identity.
2. It is important for my emergency room provider to know my gender identity.
3. It is important for a primary care provider to know the gender identity of all their patients.

4. It is important for an emergency room provider to know the gender identity of all their patients.

5. I would be more willing to share my gender identity with healthcare providers now than 10 years ago.

6. I expect that I will be more willing to share my gender identity with healthcare providers in 10 years than I am now.

[GRID, SP ACROSS]

Q35. When I come to the emergency room, I would be willing to provide my sexual orientation in the following ways:

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

1. Entering information into an online form at home
2. Filling out a paper form
3. Filling out an electronic form at a computer kiosk
4. Using a mobile medical app on my cell phone
5. Answering a question asked by a registrar
6. Answering a question asked by a nurse
7. Answering a question asked by a doctor
8. Other [TEXT BOX]
Q36. When I come to the emergency room, I would most prefer to provide my gender identity by (select only one):

- Entering information into an online form at home ......................... 1
- Filling out a paper form .................. 2
- Filling out an electronic form at a computer kiosk ....................... 3
- Using a mobile medical app on my cell phone ............................ 4
- Answering a question asked by a registrar ................................... 5
- Answering a question asked by a nurse ........................................... 6
- Answering a question asked by a doctor ......................................... 7
- Other [TEXT BOX] ........................................... 8
- None of the above ................................ 9

Q37. If asked in a hospital emergency room, I am willing to provide my gender identity when:

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Neutral</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
</tr>
</tbody>
</table>

1. the provider seems polite and non-judgmental.
2. the provider seems impolite and judgmental.
3. there are posters or signs welcoming transgender patients.
4. I am assured of confidentiality (that my information will be kept private).
5. gender identity is documented the same as other questions about me (like age, race, etc.).
6. the law in my state prohibits discrimination based on gender identity.
7. there is NO law in my state which prohibits discrimination based on gender identity.
8. the hospital is associated with a religious group.
9. other patients can hear or see my response.
10. it is directly relevant to my health concern.
11. it is NOT directly relevant to my health concern.
12. I am told why this information is relevant to my healthcare.
13. I am told that this information will be used for research purposes.
14. I am with a healthcare provider in a private space.
15. I am told that gender identity is asked of every patient.
16. I am told this information will NOT be saved in my electronic medical record.
17. the bathrooms are unisex/single-stall.
18. bathrooms are labeled for ‘male’ or ‘female’ use only.

[LARGE TEXT BOX]

Q38. What would increase your willingness to provide your gender identity?

[RANDOMIZE RESPONSE OPTIONS]

[GRID, SP ACROSS; SPLIT QUESTIONS ON 2 DIFFERENT SCREENS]

Q39. Below are some potential benefits and risks of routinely asking all patients about their gender identity in the emergency room. How much do you agree or disagree with the following statements?
If *gender identity* is routinely asked of all patients in the emergency room, then:

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Neutral</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. healthcare providers gain a better understanding of me as a whole patient.
2. healthcare providers can better screen for diseases and conditions.
3. the hospital can better identify health needs specific to transgender patients.
4. researchers can better engage and recruit transgender patients.
5. it promotes recognition of transgender patients.
6. I worry this information would be disclosed to my friends or family.
7. I am concerned that employers or insurance companies would have access to this information.
8. I would receive worse care.
9. I would receive better care.
10. I would feel uncomfortable providing my gender identity.
11. I would be offended.
12. I would refuse to provide my gender identity.

[LARGE TEXT BOX]

Q40. Please list any additional benefits of routinely asking all patients about their *gender identity* here.

[LARGE TEXT BOX]

Q41. Please list any additional risks of routinely asking all patients about their *gender identity* here.
SECTION 4: Additional Comments and Thoughts

[LARGE TEXT BOX]

Q42. Please provide any additional comments or thoughts about asking and providing sexual orientation in hospital emergency rooms:

[LARGE TEXT BOX]

Q43. Please provide any additional comments or thoughts about asking and providing gender identity in hospital emergency rooms:

SECTION 5: Demographic Information

[SP]

Q44. Do you identify as:

- Straight or Heterosexual ................. 1
- Lesbian, Gay or Homosexual ........... 2
- Bisexual ........................................... 3
- Something else, please describe
  [TEXT BOX] ..................................... 4
- Don’t Know ..................................... 5
- Decline to Answer (please explain)
  [TEXT BOX] ..................................... 6

[SP]

Q45. What is your gender identity?

- Male ................................................ 1
- Female ............................................. 2
Female-to-Male (FtM)/Transgender
   Male/Trans Man......................... 3
Male-to-Female (MtF)/Transgender
   Female/Trans Woman................. 4
Genderqueer, neither exclusively
   male nor female ....................... 5
Not Listed, please specify [TEXT BOX] 6
Decline to Answer (please explain)
   [TEXT BOX]............................... 7

Q46. What sex were you assigned at birth?

   Male .............................................. 1
   Female ........................................... 2
   Decline to Answer (please explain)
      [TEXT BOX].................................. 3

Q47. Are you legally married, in a legal domestic partnership, or in a civil union?

   Yes, I am legally married.............. 1
   Yes, I am in a legal domestic
      partnership.............................. 2
   Yes, I am in a civil union............. 3
   No, I am not legally married, in a
      legal domestic partnership, or in a
      civil union.............................. 4

[IF Q47=1-3]
[SP]
Q48. Are you currently:

With your spouse/partner ............ 1
In a trial separation from
spouse/partner......................... 2
Permanently separated from
spouse/partner......................... 3

[IF Q47=4]

[SP]

Q49. Are you currently:

Single............................................. 1
In a relationship ......................... 2
Dating........................................... 3
Partnered ...................................... 4

[SP]

Q50. Have you ever been divorced?

Yes................................................. 1
No.................................................. 2
Q51. Have you ever been employed in the healthcare field?

Yes................................................... 1
No.................................................... 2

Q52. Have you ever served in the United States Armed Forces, either in the regular military, National Guard or military reserve unit?

Yes................................................... 1
No.................................................... 2

Q53. Do you use the VA for any of your healthcare needs?

Yes................................................... 1
No.................................................... 2
Not sure if eligible......................... 3
Note: This page may be removed when the questionnaire is sent to the client. However, it must exist in the version sent to OSD.

<table>
<thead>
<tr>
<th>SNO</th>
<th>S19504</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey Name</td>
<td>Patient Sexual Identity Information</td>
</tr>
<tr>
<td>Client Name</td>
<td>Partners HealthCare System, Inc.</td>
</tr>
<tr>
<td>G&amp;A WBS</td>
<td></td>
</tr>
<tr>
<td>Project Director Name</td>
<td>Dan Faulkner</td>
</tr>
<tr>
<td>Team/Area Name</td>
<td>G&amp;A</td>
</tr>
</tbody>
</table>

**Samvar**

(Include name, type and response values. “None” means none. Blank means standard demos. This must match SurveyMan.)

<table>
<thead>
<tr>
<th>Specified Pre-coding Required</th>
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</thead>
<tbody>
<tr>
<td>Timing Template Required (y/n)</td>
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<tr>
<td>Multi-Media</td>
</tr>
</tbody>
</table>
Thank you for continuing to be part of the KnowledgePanel®. This survey asks about PATIENT CENTERED APPROACHES TO COLLECTING SEXUAL ORIENTATION AND GENDER IDENTITY (SO/GI) INFORMATION IN THE EMERGENCY DEPARTMENT (ED) and is being conducted by researchers at Partners Healthcare (Brigham and Women’s Hospital) and Johns Hopkins Hospital. This survey is being conducted to understand patient preferred ways of collecting SO/Gi in the emergency department.

As with all KnowledgePanel® surveys, your response to this survey, or any individual question on the survey, is completely voluntary. You will not be individually identified and your responses will used for analyses only.

If you have questions about your rights as a participant in this survey, or are dissatisfied at any time with any aspect of the survey, you may contact the KnowledgePanel Panel Member Support at 800-782-6899.
In this survey, we will ask you about sexual orientation and gender identity in healthcare. This survey is anonymous and will be used for research purposes only. It will take approximately 15 minutes to complete. Thank you for your time and participation.
SECTION 1: Prior Experiences in the Healthcare System

If you are unfamiliar with any of the terms below, please review the definitions here. Definitions will also be provided throughout the survey.

**Sexual Orientation** (for example: gay, lesbian, bisexual, straight, heterosexual): A personal quality describing romantic and/or sexual attraction to others.

**Gender Identity** (for example: male, female, transgender, genderqueer): A person's sense and experience of their own gender, which may or may not be the same as their sex at birth.

**Primary Care Provider** (for example: a doctor, family physician, physician assistant, nurse practitioner, internist): A health professional or facility that provides routine health care, such as annual checkups.

**Emergency Department** (ED, emergency room, ER): A place at a hospital that specializes in the immediate care of patients without an appointment.
Registrar: The person at the front desk of an emergency department who checks in the patient.

[PROGRAMMING NOTE: IMPLEMENT ROLLOVER TEXT FUNCTIONS FOR EACH OF THE DEFINITIONS LISTED THROUGHOUT THE SURVEY.]

[SP]
DOVRANDOM:
Logic: randomly assign respondents to one of the section order. If DOVRANDOM = 1 show section 1 first, then section 2; if DOVRANDOM = 2 show section 2 first then section 1.

    Section 1, Section 2.......................... 1
    Section 2, Section 1.......................... 2
SECTION 1: Sexual Orientation

[GRID, SP ACROSS]

Q1. Thinking about the past 5 years, have you directly asked patients in the emergency department about their sexual orientation?

<table>
<thead>
<tr>
<th>Very often</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

[GRID, SP ACROSS]

Q2. Thinking about the past 5 years, have you directly asked patients in the emergency department about their relationship status?

<table>
<thead>
<tr>
<th>Very often</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
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<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

[GRID, SP ACROSS]

Q3. Thinking about the past 5 years, have you witnessed emergency department providers who are uncomfortable caring for lesbian, gay, or bisexual patients?

<table>
<thead>
<tr>
<th>Very often</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
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<td>2</td>
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<td>4</td>
<td>5</td>
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</tbody>
</table>

[GRID, SP ACROSS]

Q4. Thinking about the past 5 years, have you witnessed discrimination toward lesbian, gay, or bisexual patients by emergency department providers?

<table>
<thead>
<tr>
<th>Very often</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
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<tr>
<td>1</td>
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<td>4</td>
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</tr>
</tbody>
</table>
Q5. For the next section, please indicate how strongly you agree or disagree with the following statements.

It is important for primary care providers to know:

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Neutral</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. a patient’s sexual orientation when it is relevant to the chief complaint.
2. a patient’s sexual orientation in order to provide the best individual care.
3. the sexual orientation of all their patients to better understand the health concerns of the patient population.

Q6. It is important for emergency department providers to know:

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Neutral</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. a patient’s sexual orientation when it is relevant to the chief complaint.
2. a patient’s sexual orientation in order to provide the best individual care.
3. the sexual orientation of all their patients to better understand the health concerns of the patient population.
Q7. I have received adequate training on care for lesbian, gay, and bisexual patients.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Neutral</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
</tr>
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<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Q8. I would be more comfortable asking a patient about their sexual orientation now than I would have been 10 years ago.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Neutral</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
</tr>
</thead>
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</table>

Q9. Thinking about my practice 10 years from now, I expect that I will be more comfortable asking patients about their sexual orientation.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Neutral</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
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<td>1</td>
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<td>5</td>
</tr>
</tbody>
</table>
Q10. I would prefer to collect sexual orientation information from my patients if:

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

1. Patients fill out an online form at home
2. Patients fill out a paper intake form
3. Patients fill out an electronic form at a computer kiosk
4. Patients use a mobile medical app on their cell phone
5. The registrar asks all patients
6. A nurse asks all patients
7. A doctor asks all patients
8. Other [TEXT BOX]

Q11. I would most prefer to collect sexual orientation information from my patients if (select only one):

- Patients fill out an online form at home.......................... 1
- Patients fill out a paper intake form.............................. 2
- Patients fill out an electronic form at a computer kiosk.......... 3
- Patients use a mobile medical app on their cell phone........... 4
- The registrar asks all patients............................... 5
- A nurse asks all patients.................................. 6
- A doctor asks all patients................................. 7
Q12. I am willing to ask patients about their sexual orientation when:

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Neutral</th>
<th>Somewhat agree</th>
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</tr>
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</table>

1. there are posters or signs welcoming lesbian, gay and bisexual patients.
2. patients are assured of confidentiality.
3. sexual orientation is documented as routine demographic information (like age, race, etc.).
4. the law in my state prohibits discrimination based on sexual orientation.
5. there is NO law in my state which prohibits discrimination based on sexual orientation.
6. the facility in which I work has a religious affiliation.
7. other patients are able to hear or see the patient’s response.
8. this information is collected in a private location.
9. this information is collected while asking about sexual behaviors.
10. this information is relevant to the chief complaint.
11. I am provided more training about lesbian, gay, and bisexual health.
12. it is required by emergency department policy.
Q13. What concerns do you have about asking patients their *sexual orientation*?

Q14. Below are some potential benefits and risks of routinely asking all patients about their sexual orientation in the emergency department. How much do you agree or disagree with the following statements?

If *sexual orientation* is routinely asked of all patients in the emergency department, then:

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Neutral</th>
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</table>

1. I gain a better understanding of the whole patient.
2. I can better screen for diseases and conditions.
3. I can better involve a patient’s partner in medical decision-making.
4. the hospital can better identify health needs specific to lesbian, gay, and bisexual patients.
5. researchers can better engage and recruit lesbian, gay, and bisexual patients for studies.
6. it promotes inclusion of lesbian, gay, and bisexual patients.
7. some patients may refuse to provide their sexual orientation.
8. some patients may be offended by this question.
9. my test ordering may be more appropriate.
Q15. Please list any additional benefits of routinely asking all patients about their sexual orientation here.

Q16. Please list any additional risks of routinely asking all patients about their sexual orientation here.

SECTION 2: Gender Identity

Q17. Thinking about the past 5 years, have you directly asked patients in the emergency department about their gender identity?

<table>
<thead>
<tr>
<th>Very often</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
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</tr>
</tbody>
</table>

Q18. Thinking about the past 5 years, have you witnessed emergency department providers who are uncomfortable caring for transgender patients?

<table>
<thead>
<tr>
<th>Very often</th>
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<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
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</tbody>
</table>
Q19. Thinking about the past 5 years, have you witnessed discrimination toward transgender patients by emergency department providers?

<table>
<thead>
<tr>
<th>Very often</th>
<th>Often</th>
<th>Sometimes</th>
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</table>

Q20. For the next section, please indicate how strongly you agree or disagree with the following statements.

It is important for primary care providers to know:

<table>
<thead>
<tr>
<th>Strongly disagree</th>
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<td>5</td>
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</tbody>
</table>

1. a patient’s gender identity when it is relevant to the chief complaint.
2. a patient’s gender identity in order to provide the best individual care.
3. the gender identity of all their patients to better understand the health concerns of the patient population.
Q21. It is important for emergency department providers to know:

<table>
<thead>
<tr>
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</tbody>
</table>

1. a patient’s *gender identity* when it is relevant to the chief complaint.
2. a patient’s *gender identity* in order to provide the best individual care.
3. the *gender identity* of all their patients to better understand the health concerns of the patient population.

Q22. I have received adequate training on care for transgender patients.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
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</tr>
</tbody>
</table>

Q23. I would feel more comfortable asking a patient about their *gender identity* now than I would have been 10 years ago.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Neutral</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Q24. Thinking about my practice 10 years from now, I expect that I will be more comfortable asking a patient about their gender identity.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Neutral</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Q25. I would prefer to collect gender identity information from my patients if:

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

1. Patients fill out an online form at home
2. Patients fill out a paper intake form
3. Patients fill out an electronic form at a computer kiosk
4. Patients use a mobile medical app on their cell phone
5. The registrar asks all patients
6. A nurse asks all patients
7. A doctor asks all patients
8. Other [TEXT BOX]
Q26. I would **most** prefer to collect *gender identity* information from my patients if (select only one):

- Patients fill out an online form at home .......................................... 1
- Patients fill out a paper intake form 2
- Patients fill out an electronic form at a computer kiosk ......................... 3
- Patients use a mobile medical app on their cell phone ......................... 4
- The registrar asks all patients .......... 5
- A nurse asks all patients .................. 6
- A doctor asks all patients ................ 7
- Other [text box] .............................. 8
- I would not obtain sexual orientation from my patients ....... 9

[GRID, SP ACROSS]

[RANDOMIZE RESPONSE OPTIONS]

Q27. I am willing to ask patients about their *gender identity* when:

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Neutral</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. there are posters or signs welcoming transgender patients.
2. patients are assured of confidentiality.
3. gender and gender identity are documented as routine demographic information (like age, address, etc.).
4. the law in my state prohibits discrimination based on gender identity.
5. there is NO law in my state which prohibits discrimination based on gender identity.
6. the facility in which I work has a religious affiliation.
7. other patients are able to hear or see the patient’s response.
8. it is collected in a private location.
9. it is relevant to the chief complaint.
10. I am provided more training about transgender health.

[LARGE TEXT BOX]

Q28. What other concerns do you have about asking patients about their gender identity?

[GRID, SP ACROSS] [RANDOMIZE RESPONSE OPTIONS]

Q29. Below are some potential benefits and risks of routinely asking all patients about their gender identity in the emergency department. How much do you agree or disagree with the following statements?

If gender identity is routinely collected, then:

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Somewhat disagree</th>
<th>Neutral</th>
<th>Somewhat agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. I gain a better understanding of the whole patient.
2. I can better screen for diseases more common in transgender populations.
3. the hospital can record how many transgender patients are being served.
4. the hospital can research topics related to transgender health.
5. some patients may refuse to provide their gender identity.
6. some patients may be offended by this question.
7. it promotes inclusion of transgender patients.
8. my test ordering may be more appropriate.

[LARGE TEXT BOX]

Q30. Please list any additional benefits of routinely asking all patients about their gender identity here.

[LARGE TEXT BOX]

Q31. Please list any additional risks of routinely asking all patients about their gender identity here.

SECTION 3: Additional Comments and Thoughts

[LARGE TEXT BOX]

Q32. Please provide any additional comments or thoughts about asking patients their sexual orientation in the emergency department:
Q33. Please provide any additional comments or thoughts about asking patients their gender identity in the emergency department:

SECTION 4: Demographic Information

Q34. Do you identify as:

- Straight or Heterosexual ................. 1
- Lesbian, Gay or Homosexual ........... 2
- Bisexual ........................................... 3
- Something else, please describe
  [TEXT BOX] ..................................... 4
- Don’t Know ..................................... 5
- Decline to Answer (please explain)
  [TEXT BOX] ..................................... 6

Q35. What is your gender identity?

- Male ................................................ 1
- Female............................................. 2
- Female-to-Male (FtM)/Transgender
  Male/Trans Man ................................. 3
- Male-to-Female (MtF)/Transgender
  Female/Trans Woman ......................... 4
Genderqueer, neither exclusively male nor female ......................... 5
Not Listed, please specify [TEXT BOX] 6
Decline to Answer (please explain)
[TEXT BOX]................................. 7

Q36. What sex were you assigned at birth?

Male ................................................ 1
Female............................................. 2
Decline to Answer (please explain)
[TEXT BOX]................................. 3

Q37. Are you legally married, in a legal domestic partnership, or in a civil union?

Yes, I am legally married. ............... 1
Yes, I am in a legal domestic partnership. ....................... 2
Yes, I am in a civil union. ............... 3
No, I am not legally married, in a legal domestic partnership, or in a civil union................. 4
[IF Q37=1-3]  

[SP]  

Q38. Are you currently:  
With your spouse/partner .......... 1  
In a trial separation from  
spouse/partner ....................... 2  
Permanently separated from  
spouse/partner ....................... 3

[IF Q37=4]  

[SP]  

Q39. Are you currently:  
Single ........................................ 1  
In a relationship  ...................... 2  
Dating ...................................... 3  
Partnered  ............................... 4

[SP]  

Q40. Have you ever been divorced?  
Yes ......................................... 1  
No ........................................... 2

[SP]  

Q41. What is your role in the emergency department?  
Registered Nurse ...................... 1  
Nurse Practitioner ..................... 2
Licensed Practical Nurse
Physician Assistant
Attending Physician
Medical Technician
Registrar
Physician Resident/Intern
I have never worked in an emergency department

Q42. How long have you worked in emergency medicine?

Less than 1 year
1 – 5 years
6 – 10 years
11 – 20 years
21 – 30 years
>30 years

Q43. How would you describe the location of your emergency department?

Urban
Suburban
Rural
Small town
Q44. How would you identify your race?

1. Black or African-American
2. White or Caucasian
3. Asian
   - Asian-Chinese
   - Asian-Japanese
   - Asian-Indian
   - Asian-Korean
   - Asian-Filipino
   - Asian-Vietnamese
   - Asian-Others
4. American Indian or Alaska Native
5. Pacific Islander
   - Native Hawaiian
   - Guamanian or Chamoro
   - Samoan
   - Other Pacific Islander
6. Some other race

Q45. Are you Hispanic/Latino(a)?

Yes................................................... 1
No.................................................... 2
Appendix 4. Delphi Round questionnaires

The EQUALITY Study

Modified Delphi Round 1

Part I. GENERAL QUESTIONS

1. Should SO and GI demographic data be collected by the same method (e.g. non-verbal self-report, verbal collection, etc.) in the ED?
   
   o Yes
   o Something else (free response)
   o No

2. Should SO and GI demographic data be collected at the same time (i.e. during the same time point during the visit) in the ED?
   
   o Yes
   o Something else (free response)
   o No

3. Should SO and GI demographic data be collected with the same frequency (e.g. asked once every visit, asked once ever at first visit, updated at patient’s discretion through online portal, etc.) in the ED?
   
   o Yes
   o Something else (free response)
   o No
Part II. SEXUAL ORIENTATION

4. Please select the preferred **method of collection** for SO demographic data in the ED:

   o Non-verbal self-report and/or verbal disclosure (multimodal collection)
   o Something else (free response)
   o Non-verbal self-report (form collection)
   o Verbal collection by ED team member (verbal collection)

IIA. SEXUAL ORIENTATION – FORM COLLECTION

5. If **form collection** is determined by consensus of the board to be the **preferred method** of collection for SO, in what specific way should this be done?

   o Something else (free response)
   o Patients fill out an electronic form at a computer kiosk in the ED
   o Patients use a mobile medical app on their cell phone
   o Patients enter the information into a form online from home
   o Patients fill out a paper/non-electronic form in the ED

6. Rank the **benefits** of a **form** collection method for SO. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-8.)

   ___ Patient privacy
   ___ Accuracy of the data
   ___ Patients feel recognized
   ___ Inclusivity for SO minorities
   ___ Improved individual medical care
   ___ Improved rapport between patient and healthcare team
   ___ Population level research advances for SO minorities
7. Rank the **risks** of a **form** collection method for SO. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-7.)

___ Data may be inadvertently disclosed to others
___ Data may be intentionally disclosed to others
___ Patients may be offended
___ Data are not accurate
___ Data are not relevant to medical concern
___ Discrimination
___ Something else (free response)

8. Rank the **barriers** to implementation of a **form** collection method for SO. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-4.)

___ Lack of other existing form collection methods in ED (most data collected from patients is collected verbally)
___ Some patients will be physically unable to utilize form collection method (e.g. too ill or otherwise incapacitated to complete forms)
___ Time constraints on ED team
___ Something else (free response)

9. Rank the **facilitators** to implementation of a **form** collection method for SO. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-4.)
___Cues to safety in the physical space (Patient Bill of Rights, Non-Discrimination Posters, Safe Zone stickers, SGM patients welcome poster, etc.)
___Private area to complete form in ED
___Staff to assist patients with form completion in ED
___Something else (free response)

10. Rank the operational factors that must be implemented along with a form collection method of SO. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-4.)

___Education/training of the ED team in SGM cultural competency
___Statement of purpose for collection of SO
___Storage and use policies for SO data
___Something else (free response)

IIB. SEXUAL ORIENTATION – VERBAL COLLECTION

11. If verbal collection is determined by consensus of the board to be the preferred method of collection for SO, in what specific way should this be done?

   o Verbal question by nurse
   o Something else (free response)
   o Verbal question by physician
   o Verbal question by registrar

12. Rank the benefits of a verbal collection method for SO. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-8.)
Improved rapport between patient and healthcare team
Patients feel recognized
Improved individual medical care
Accuracy of the data
Patient privacy
Inclusivity for SO minorities
Population level research advances for SO minorities
Something else (free response)

13. Rank the **risks** of a **verbal** collection method for SO. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-7.)

Data may be inadvertently disclosed to others
Patients may be offended
Data may be intentionally disclosed to others
Discrimination
Data are not accurate
Data are not relevant to medical concern
Something else (free response)

14. Rank the **barriers** to implementation of a **verbal** collection method for SO. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-5.)

Patients are not assured that all patients are being asked about SO and may feel “singled out.”
ED team is not adequately trained to collect data verbally
Time constraints on ED team
___Some patients will be physically unable to respond to verbal questions. (e.g. too ill or otherwise incapacitated to answer questions)
___Something else (free response)

15. Rank the **facilitators** to implementation of a **verbal** collection method for SO. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-4.)

___Standard verbal dialogue informing patients why data are collected and assuring that all patients are asked same questions – 1.86
___Private location – 2.23
___Cues to safety in the physical space (Patient Bill of Rights, Non-Discrimination Posters, Safe Zone stickers, SGM patients welcome poster, etc.) – 2.27
___Something else (free response) – 3.64

16. Rank the **operational factors** that must be implemented along with a **verbal** collection method of SO. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-4.)

___Education/training of the ED team in SGM cultural competency
___Statement of purpose for collection of SO
___Storage and use policies for SO data
___Something else (free response)

IIC. SEXUAL ORIENTATION – MULTIMODAL COLLECTION

17. If **multimodal collection** is determined by consensus of the board to be the **preferred**

   [Type response here]
18. Rank the **benefits** of **multimodal** collection method for SO. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-8.)

___ Accuracy of the data
___ Improved rapport between patient and healthcare team
___ Patients feel recognized
___ Patient privacy
___ Inclusivity for SO minorities
___ Improved individual medical care
___ Population level research advances for SO minorities
___ Something else (free response)

19. Rank the **risks** of **multimodal** collection method for SO. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-7.)

___ Data may be inadvertently disclosed to others
___ Patients may be offended
___ Data may be intentionally disclosed to others
___ Discrimination
___ Data are not accurate
___ Data are not relevant to medical concern
___ Something else (free response)

20. Rank the **barriers** to implementation of a **multimodal** collection method for SO. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-3.)
21. Rank the **facilitators** to implementation of a **multimodal** collection method for SO.
(Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-4.)

___Standard dialogue informing patients why data are collected and assuring that all patients are asked same questions
___Private location
___Cues to safety in the physical space (Patient Bill of Rights, Non-Discrimination Posters, Safe Zone stickers, SGM patients welcome poster, etc.)
___Something else (free response)

22. Rank the **operational factors** that must be implemented along with a **multimodal** collection method of SO. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-4.)

___Education/training of the ED team in SGM cultural competency
___Statement of purpose for collection of SO
___Storage and use policies for SO data
___Something else (free response)

23. If a multimodal collection method is used, how should discordant responses be managed? (For example, a patient may complete a form and indicate one SO, but upon verbal disclosure, a different SO is disclosed.)
24. Is there anything else you would like to add regarding collection of SO demographic data in the ED?

[Type response here]

25. Please select the preferred method of collection for GI demographic data in the ED:

- Non-verbal self-report and/or verbal disclosure (multimodal collection)
- Something else (free response)
- Non-verbal self-report (form collection)
- Verbal collection by ED team member (verbal collection)

Part IIIA. GENDER IDENTITY – FORM COLLECTION

26. If form collection is determined by consensus of the board to be the preferred method of collection for GI, in what specific way should this be done?
o Something else (free response)

o Patients fill out an electronic form at a computer kiosk in the ED

o Patients fill out a paper/non-electronic form in the ED

o Patients enter the information into a form online from home

o Patients use a mobile medical app on their cell phone

27. Rank the **benefits** of a **form** collection method for GI. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-8.)

___ Patient privacy
___ Accuracy of the data
___ Patients feel recognized
___ Improved rapport between patient and healthcare team
___ Inclusivity for GI minorities
___ Improved individual medical care
___ Population level research advances for GI minorities
___ Something else (free response)

28. Rank the **risks** of a **form** collection method for GI. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-7.)

___ Data may be inadvertently disclosed to others
___ Discrimination
___ Data may be intentionally disclosed to others
___ Patients may be offended
___ Data are not accurate
___Data are not relevant to medical concern
___Something else (free response)

29. Rank the barriers to implementation of a form collection method for GI. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-4.)

___Lack of other existing form collection methods in ED (most data collected from patients is collected verbally)
___Patients will be physically unable to utilize form collection method (e.g. too ill or otherwise incapacitated to complete forms)
___Time constraints on ED team
___Something else (free response)

30. Rank the facilitators to implementation of a form collection method for GI. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-4.)

___Cues to safety in the physical space (Patient Bill of Rights, Non-Discrimination Posters, Safe Zone stickers, SGM patients welcome poster, gender neutral bathrooms, etc.)
___Private area to complete form in ED
___Staff to assist patients with form completion in the ED
___Something else (free response)

31. Rank the operational factors that must be implemented along with a form collection method of GI. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-4.)
Part IIIB GENDER IDENTITY – VERBAL COLLECTION

32. If verbal collection is determined by consensus of the board to be the preferred method of collection for GI, in what specific way should this be done?

- Verbal question by nurse
- Something else (free response)
- Verbal question by physician
- Verbal question by registrar

33. Rank the benefits of a verbal collection method for GI. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-8.)

- Improved rapport between patient and healthcare team
- Patients feel recognized
- Accuracy of the data
- Patient privacy
- Improved individual medical care
- Inclusivity for GI minorities
- Population level research advances for GI minorities
- Something else (free response)
34. Rank the **risks** of a **verbal** collection method for GI. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-7.)

___ Data may be inadvertently disclosed to others
___ Patients may be offended
___ Discrimination
___ Data may be intentionally disclosed to others
___ Data are not accurate
___ Data are not relevant to medical concern
___ Something else (free response)

35. Rank the **barriers** to implementation of a **verbal** collection method for GI. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-5.)

___ ED team is not adequately trained to collect data
___ Patients are not assured that all patients are being asked about GI and may feel “singled out.”
___ Time constraints on ED team
___ Some patients will be physically unable to respond to verbal questions. (e.g. too ill or otherwise incapacitated to answer questions)
___ Something else (free response)

36. Rank the **facilitators** to implementation of a **verbal** collection method for GI. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-4.)
___Private location
___Cues to safety in the physical space (Patient Bill of Rights, Non-Discrimination Posters, Safe Zone stickers, SGM patients welcome poster, gender neutral bathrooms, etc.)
___Standard verbal dialogue informing patients why data are collected and assuring that all patients are asked same questions
___Something else (free response)

37. Rank the operational factors that must be implemented along with a verbal collection method of GI. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-4.)

___Education/training of the ED team in SGM cultural competency
___Statement of purpose for collection of GI
___Storage and use policies for GI data
___Something else (free response)

IIC. GENDER IDENTITY – MULTIMODAL COLLECTION

38. If multimodal collection is determined by consensus of the board to be the preferred method of collection for GI, in what specific way should this be done?

[Type response here]
39. Rank the **benefits** of multimodal collection method for GI. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-8.)

___Accuracy of the data  
___Patients feel recognized  
___Improved rapport between patient and healthcare team  
___Patient privacy  
___Inclusivity for GI minorities  
___Improved individual medical care  
___Population level research advances for GI minorities  
___Something else (free response)

40. Rank the **risks** of multimodal collection method for GI. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-7.)

___Discrimination  
___Data may be inadvertently disclosed to others  
___Patients may be offended  
___Data may be intentionally disclosed to others  
___Data are not accurate  
___Data are not relevant to medical concern  
___Something else (free response)

41. Rank the **barriers** to implementation of a multimodal collection method for GI. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-3.)
42. Rank the facilitators to implementation of a multimodal collection method for GI. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-4.)

___Standard dialogue informing patients why data are collected and assuring that all patients are asked same questions – 2.00
___Private location – 2.05
___Cues to safety in the physical space (Patient Bill of Rights, Non-Discrimination Posters, Safe Zone stickers, SGM patients welcome poster, gender neutral bathrooms, etc.) – 2.19
___Something else (free response) – 3.76

43. Rank the operational factors that must be implemented along with a multimodal collection method of GI. (Means presented in order of greatest importance to least importance – lower number indicates greater importance – scale 1-4.)

___Education/training of the ED team in SGM cultural competency
___Statement of purpose for collection of GI
___Storage and use policies for GI data
___Something else (free response)
44. If a multimodal collection method is used, how should discordant responses be managed? (For example, a patient may complete a form and indicate one GI, but upon verbal disclosure, a different GI is disclosed.)

[Type response here]

45. Is there anything else you would like to add regarding collection of GI demographic data in the ED?

[Type response here]
The EQUALITY Study
Modified Delphi Round 2

Frequency of Collection.

1. What frequency is most appropriate for collection of SO and GI in the ED?
   - Collect once only but allow patient to update this information at own discretion
   - Something else (free response)
   - Every visit
   - Allow patient access to an electronic platform that interfaces with EHR and can be updated at patient’s own discretion
   - Every 6 months
   - Every 12 months
   - Collect once only

Multimodal Approach:
The preferred method for collection of both SO and GI was identified by SAB members as a multimodal approach.

2. Which specific multimodal approach is best? (Means presented in order of greatest preference to least preference—lower number indicates greater preference—scale 1-7.)
   - Verbal explanation by nurse followed by electronic form collection administered by nurse
   - Electronic form collection administered by registrar followed by verbal confirmation by nurse
   - Electronic form collection administered by nurse followed by verbal confirmation by physician
3. If the preferred approach utilizes form collection, who should administer the form (e.g. hand the patient an iPad tablet to complete questions)? (Means presented in order of greatest preference to least preference—lower number indicates greater preference—scale 1-4.)

- Nurse
- Registrar
- Physician
- Something else (free response)

4. If the preferred approach utilizes form collection followed by verbal confirmation, should there be an option on the form that indicates patient is not willing to disclose on the form and NOT willing to participate in a verbal discussion with ED staff?

- Yes
- No
- Something else (free response)

5. If the preferred approach utilizes form collection followed by verbal confirmation, should there be an option on the form that indicates patient is not willing to disclose on the form but IS willing to participate in a verbal discussion with ED staff?
6. If the preferred multimodal approach utilizes form collection, how best should we ensure that the appropriate providers gain access to these data in a timely manner?

[Type response here.]

Patient-Specific Collection of SO/GI:
Numerous SAB members indicated in Round 1 that the preferred method for collection of both SO and GI was patient-specific and each patient should be able to select the method by which they wish to disclose these data.

7. What is the most appropriate way to assess how an individual patient wishes to disclose SO and GI?

[Type response here.]

8. When should patient preferences with respect to collection of SO and GI be assessed?

[Type response here.]
9. Who is responsible for assessing the patient’s preferences with respect to collection of SO and GI?

[ Type response here.]

Implementation Trial:
The preferred method for collection of both SO and GI was identified by SAB members as a multimodal approach. The goal of this study is to do a trial to compare methods for collecting SO and GI to determine the best method.

10. If a multimodal approach is the preferred method to test in the trial, what serves as a comparison group? (For example, do we compare multimodal approach to form collection only or do we compare one type of multimodal approach to a different type of multimodal approach?)

[ Type response here.]

11. What education format is acceptable? (Means presented in order of greatest preference to least preference—lower number indicates greater preference—scale 1-5.)

___ In-service training for all ED staff
In-service training for nurses and physicians
Online module
Grand Rounds presentation
Something else (free response)

12. Should education of all ED nurses, physicians and staff be mandatory?
   - Yes
   - Something else (free response)
   - No

13. How frequently should education of ED nurses, physicians and staff take place?
   - Once a year
   - Twice a year
   - Something else (free response)
   - Once ever

14. Should education be separate from roll-out of the EQUALITY cluster randomized trial?
   - Yes
   - Something else (free response)
   - No

15. What curriculum should be used to train the ED nurses, physicians and staff in SGM health and cultural competency?
   - Something else (free response)
   - Do Ask, Do Tell (The Fenway Institute, Boston, MA)
16. Who should be responsible for training the ED staff?

[ Type response here.]
Appendix 5. Patient outcome survey

[Display]

Consent Form for EQUALITY STUDY

We are conducting a research study to learn more about patient preferred ways of collecting sexual orientation and gender identity in the emergency department. We are asking all patients who come to the emergency department to consider participation in this study. This is a research study being conducted by researchers at Partners Healthcare (Brigham and Women’s Hospital and Brigham and Women’s Faulkner Hospital) and Johns Hopkins Hospital.

There are no right or wrong answers to the questions and you may stop participation at any time. Your response to this survey, or any individual question on the survey, is completely voluntary. Deciding not to participate won’t affect medical care you receive at Partners now or in the future, or any benefits you receive now or have a right to receive.

Your responses will only be seen by our research team and will be kept completely private and secure.

We are required by the Health Insurance Portability and Accountability Act (HIPAA) to protect the privacy of health information obtained for research. This is an abbreviated notice, and does not describe all details of this requirement (see Partners Privacy Notice). During this study, identifiable information about you or your health will be collected and shared with the researchers conducting the research. In general, under federal law, identifiable health information is private. However, there are exceptions to this rule. In some cases, others may see your identifiable health information for purposes of research oversight, quality control, public health and safety, or law enforcement. We share your health information only when we must, and we ask anyone who receives it from us to protect your privacy.

There are no physical risks to you by participating in this interview and no direct benefits. However, the information you give us may help us with data gathering and ultimately patient
care in the future. There is no cost to you but you will receive a $10 gift card for your time.

If you have questions about this survey, you may contact the Principal Investigator, Dr. Adil Haider, at 617-525-7300. If you’d like to speak to someone not involved in this research about your rights as a research subject, or any concerns or complaints you may have about the research, contact the Partners Human Research Committee at 617-424-4100.

Your completion of this survey will serve as your consent to be in this research study.

[I AGREE TO PARTICIPATE IN THIS RESEARCH]

(THE IS A BUTTON THAT TAKES RESPONDENT TO SURVEY)

In this survey, we will ask you about sexual orientation and gender identity in healthcare. This survey is anonymous and will be used for research purposes only. It will take approximately 10 minutes to complete. Thank you for your time and participation.
EQUALITY Phase III Patient–Reported Outcomes – Patient Form

FOR PATIENTS DECLINING ALL PARTICIPATION ONLY

Can you please share your main reason for not speaking with us today?
   ___ This is not a private space
   ___ I am concerned my information won’t be confidential
   ___ I do not have time to sit here today to answer questions
   ___ There is not enough payment for my time
   ___ These questions are none of your business

SECTION A – LEADERSHIP COMMITMENT SUBSCALE (C-CAT)

Dear patient: Please help us find out how well we communicate with patients at [ORG NAME].
This survey will take less than 10 minutes. Please do not write your name on the survey. Your answers to these questions will be matched with your medical record at this visit, for research purposes only. This will not become part of your record in any way. Your answers to these questions will not change how you are treated.

Instructions:
   1. Please, fill out this survey.
   2. Please answer all questions about only your healthcare visit today.

Your answers to these questions are very important. But, you do not have to fill out this survey if you do not want to.
Thank you for your help.

1.) Was it easy to ask questions at the hospital?  

2.) Was information in the waiting areas helpful?  

3.) Was it easy to reach someone on the phone if you had a question?  

4.) Do you feel welcome at the hospital?  

5.) Are you happy with the care you get at the hospital?  

6.) Does the hospital communicate well with patients?  

7.) Would you bring a family member to this hospital?  

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**SECTION B – PROCESS SATISFACTION AND SUGGESTIONS**

**READ:** Thank you for agreeing to answer these questions. We are interested in your experience in reporting information during your visit today. Each question has a set of answer choices for you to select from. There are no right or wrong answers, and all of your information will be kept confidential.

**Section B.1 Overall comfort with providing information**

1.) How comfortable did the ED staff (doctors, nurses, front desk) seem to be when interacting with you today?
1 – Very uncomfortable
2 – Uncomfortable
3 – Neither comfortable nor uncomfortable
4 – Comfortable
5 – Very comfortable
99 – Refuse to answer

2.) How respectfully have you been treated by the ED staff today?
   1 – Very disrespectfully
   2 – Disrespectfully
   3 – Neutrally
   4 – Respectfully
   5 – Very respectfully
   99 – Refuse to answer

2a.) What made you feel this way about how you were treated today?

________________________________________________________________________
________________________________________________________________________

3.) How often were you ignored by the ED staff during your visit?
   1 – Never
   2 – Rarely
   3 – Sometimes
   4 – Often
   5 – Constantly
   99 – Refuse to answer

3a.) What made you feel this way during your visit today?

________________________________________________________________________
________________________________________________________________________
4.) Was there anything you were not able to share during your visit today?
   1 – No
   2 – Yes
   99 – Refuse to answer

4a.) What did you wish to share today?

________________________________________________________________________
________________________________________________________________________

5.) How concerned were you about your privacy while answering questions today?
   1 – Not at all concerned
   2 – A little concerned
   3 – Somewhat concerned
   4 – Concerned
   5 – Very concerned
   99 – Refuse to answer

6.) Which of the following personal information were you least comfortable with providing today? Please choose only one.

   My race/ethnicity _____
   My income _____
   My sexual orientation _____
   My gender identity _____
   My religion _____
   Not applicable/I was not asked _____
   Other _____________________________
7.) How easy was it to understand the questions you were asked today?

1 – Very difficult
2 – A little difficult
3 – Acceptable
4 – Easy
5 – Very easy
99 – Refuse to answer

Section B.2 Comfort level with providing SO/GI information

8.) How comfortable were you reporting your sexual orientation at your healthcare visit today?

1 – Not at all comfortable
2 – A little comfortable
3 – Somewhat comfortable
4 – Comfortable
5 – Very comfortable
99 – Refuse to answer
00 – I was not asked about sexual orientation today

9.) How comfortable were you reporting your gender identity at your healthcare visit today?

1 – Not at all comfortable
2 – A little comfortable
3 – Somewhat comfortable
4 – Comfortable
5 – Very comfortable
99 – Refuse to answer
00 – I was not asked about gender identity today
10.) Do you consider sharing your sexual orientation related to your visit today?

1 – Not at all related
2 – A little related
3 – Somewhat related
4 – Related
5 – Very related
99 – Refuse to answer

10a.) Why or why wasn’t this information related to your visit?

________________________________________________________________________
________________________________________________________________________

11.) Do you consider sharing your gender identity related to your visit today?

1 – Not at all related
2 – A little related
3 – Somewhat related
4 – Related
5 – Very related
99 – Refuse to answer

11a.) Why or why wasn’t this information related to your visit?

________________________________________________________________________
________________________________________________________________________

12.) How important is it for all patients to provide their sexual orientation in healthcare visits?

1 – Not at all important
2 – A little important
3 – Somewhat important 
4 – Important 
5 – Very important 
99 – Refuse to answer

12a.) Why or why isn’t this information important for healthcare visits?

________________________________________________________________________
________________________________________________________________________

13.) How important is it for all patients to provide their gender identity in healthcare visits?

1 – Not at all important 
2 – A little important 
3 – Somewhat important 
4 – Important 
5 – Very important 
99 – Refuse to answer

13a.) Why or why isn’t this information important for healthcare visits?

________________________________________________________________________
________________________________________________________________________

14.) How can we make improve our registration process? Please check all that apply.

Ask the questions in a more private space    _____
Make the wording simpler    _____
Shorten the number of questions    _____
Have someone read me the questions    _____
Make the text larger    _____
Other ____________________________________
Appendix 6. Final study protocol

Answer all questions accurately and completely in order to provide the PHRC with the relevant information to assess the risk-benefit ratio for the study. Do not leave sections blank.

PRINCIPAL/OVERALL INVESTIGATOR

Adil Haider, MD MPH

PROTOCOL TITLE

Patient Centered Approaches to Collect Sexual Orientation and Gender Identity Information in the Emergency Department – Phase 3 Trial

FUNDING

Patient-Centered Outcomes Research Institute (PCORI)

VERSION DATE

01/27/2016

SPECIFIC AIMS

Concisely state the objectives of the study and the hypothesis being tested

Goal: To determine the most patient-centered approach to collect sexual orientation and gender identity (SO/GI) information in the emergency department (ED)

Specific Aim 1: To implement two different approaches to SO/GI collection in the ED

Specific Aim 2: To compare the patient-centeredness of two different approaches to SO/GI collection in the ED
BACKGROUND AND SIGNIFICANCE

Provide a brief paragraph summarizing prior experience important for understanding the proposed study and procedures.

Lesbian, Gay, Bisexual and Transgender (SGM) populations experience significant health disparities associated with social stigma and discrimination, including higher risk of depression, suicide, substance abuse, and HIV.1-3 Gay men, particularly within communities of color, have a higher risk of HIV and other sexually transmitted infections (STIs).4 Lesbians and bisexual women are more likely to be overweight or obese,5 and lesbians are less likely to get preventive services for cancer.6,7 Older SGM individuals are particularly affected by barriers to high quality health care due to isolation and a lack of culturally competent health care providers.8 Transgender individuals arguably experience the most acute health care access and outcomes disparities. Transgender people have a high prevalence of HIV and other STIs,9 victimization,10 and mental health issues.11 The overwhelming array of health disparities experienced by the SGM community, compounded by the lack of available data, led the U.S. Department of Health and Human Services to identify SGM individuals as a target group for improvement in Healthy People 2020 and prioritized the need to identify appropriate data collection systems for SGM health.12 Recently, the Center for Medicare and Medicaid Services have released Meaningful Use Stage 3 guidelines, which require all certified Electronic Health Record (EHR) systems to have that capacity to record SO/GI data.13 Lack of data on SO/GI is a major challenge to understanding and addressing SGM health disparities.14 Furthermore, awareness of a patient’s SO/GI information is important for health care providers to know, as it may be clinically relevant.15 For instance, a female-to-male transgender patient (someone who was born a female, but whose gender identity or expression is now male) who presents to the ED with pelvic pain and does not disclose his gender identity – and most importantly, is not asked – is in danger of receiving poorer quality or delayed health care simply due to his providers’ lack of awareness.

Every year in the United States, there are nearly 130 million visits to hospital EDs.16 Few hospital EDs routinely collect SO/GI information;17 however, the potential impact of doing so would be tremendous given this high volume of patients. In the preliminary findings of the study, it was found that while ED healthcare providers did not feel SO/GI collection was relevant, patients perceived collection to be important regardless of their medical concern. Although there are significant challenges to asking SO/GI information in a patient-centered way, the failure to inclusively and sensitively address SO/GI information in the hospital emergency setting effectively creates conditions for a kind of invisibility among SGM individuals – both within the examining room and within health outcomes data.


RESEARCH DESIGN AND METHODS

Briefly describe study design and anticipated enrollment, i.e., number of subjects to be enrolled by researchers study-wide and by Partners researchers. Provide a brief summary of the eligibility criteria (for example, age range, gender, medical condition). Include any local site restrictions, for example, “Enrollment at Partners will be limited to adults although the sponsor’s protocol is open to both children and adults.

This trial is the final phase of a three phase PCORI-funded study to develop and test patient-centered approaches to collect SO/GI information in the ED. This trial involves a three-mode design to be implemented at four hospitals: Brigham and Women’s Hospital, Brigham and Women’s Faulkner Hospital, The Johns Hopkins Hospital and Howard County General Hospital. From the results of Phase 1 qualitative interviews and national quantitative survey and Phase 2 Delphi rounds with the Stakeholder Advisory Board, we have determined two methods of collection favored by patients and providers to implement in the trial. The first method, nurse verbal collection, is in alignment with Partners recommended clinical practice and is therefore a quality improvement (QI) evaluation. The second method, non-verbal registrar form collection with nurse verbal confirmation, is a research intervention to evaluate and compare a new patient-centered approach to SO/GI collection. To compare the patient-centeredness of the two different approaches, satisfaction surveys will be administered to ED patients and staff members involved in collection.

In summary, the study design (1) evaluates recommended current practice (QI), (2) evaluates a quality improvement project to increase recommended current practice, and (3) evaluates a new method of collecting SOGI (research intervention). The study design includes three modes described below:

Mode 0: Staff Education on SO/GI Data Collection

This serves as a baseline period prior to any interventions. During this mode, research staff will facilitate educational sessions with ED registrars, nurses, and physicians to provide background on SO/GI collection, SGM health, and the study design, using a standardized curriculum. Registrars and nurses will be trained to collect SO/GI information using a standardized protocol across all four hospital sites. To establish a baseline for the proportion of ED patients reporting SO/GI, we will conduct a retrospective review of EPIC medical records to determine the proportion of patients who had SO/GI recorded and the proportion of ED patients that identify as SGM.

Mode 1 (0-6 months): Nurse Verbal Collection of SO/GI

Nurse verbal collection of SO/GI information is currently standard of practice at our participating Partners-affiliated hospital sites.18 This mode of the study is a quality improvement intervention to improve current practice. First nurses will undergo training on SO/GI collection facilitated by study staff members. In Mode 1, ED nurses will verbally ask patients for this information as a part of social history collection, and then enter it into the corresponding data field within the EPIC EHR. We will use standard quality improvement techniques to improve compliance with data gathering by nurses including identifying clinical champions, sending reminder emails to staff, and audit and feedback of overall
departmental performance. Periodically throughout the 6 month period, study staff will work with nursing leadership to facilitate progress meetings to allow nurses to engage in discussion and provide feedback on the SO/GI collection process. All of these techniques are standard approaches to improve compliance with recommended clinical care.

We will conduct a triggered follow-up survey with SGM, non-SGM and non-responding patients before discharge from the ED. The survey, designed to be completed in 5-10 minutes, aims to assess patient satisfaction and comfort with the method of SO/GI collection and overall climate of the hospital.

**Mode 2 (6-12 months): Registrar Form Collection of SO/GI**

During patient registration, registrars will administer an electronic form to patients via tablet. This will include the following variables:

**Sexual Orientation**

*Question #1: What is the patient’s sexual orientation?*

*Options: Straight/Heterosexual, Gay/Lesbian/Homosexual, Bisexual, Queer, Questioning/Unsure, Pansexual, Prefer to speak with nurse, Declined to State, Other*

**Gender Identity**

*Question #3: What is the patient’s gender identity now?*

*Options: Female, Male, Transgender Female-to-Male, Transgender Male-to-Female, Queer/Genderqueer, Questioning/Unsure, Prefer to speak with nurse, Declined to State, Other*

**Sex at Birth**

*Question #2: What was the patient’s assigned sex at birth?*

*Options: Female, Male, Declined to State, Other*

As it is not currently possible to directly integrate data from the tablet into the EPIC EHR, a nurse will be given the tablet. Nurses will check for the completion of the form and enter the data into the EHR. If the patient has not completed the form or indicates a preference for discussing with a nurse, the nurse will verbally confirm the SO/GI of the patient.

We will conduct a triggered follow-up survey with SGM, non-SGM and non-responding patients prior from discharge from the ED, as described above in Mode 1.

A staff satisfaction survey will be administered to registrars and nurses participating in SO/GI collection in the ED, during the last four weeks of each mode. The surveys will be conducted using the web-enabled RedCap application. Participants will receive unique log-in information via email for accessing the secure online survey.

The primary outcome of the study is patient satisfaction. The secondary outcomes are (1) ED staff satisfaction; and (2) the proportion of patients reporting SO and GI in each mode.
Eligible participants will include adult ED patients and ED nurses and registrars. All participants in the study must be age 18 and older and cognitively and physically capable of participation and informed consent. Adult ED patients include those seeking ED evaluation at a participating hospital site. Adult ED employees include staff members currently working as nurses or registrars in the ED of participating hospital sites directly involved in the collection of SO/GI.

The anticipated enrollment study-wide (including all four sites) for the follow-up satisfaction survey is 764 participants, further detailed below:

SGM Patients: 142
Non-SGM Patients: 142
Non-responding Patients: 142
Blank Field Patients: 142
ED Staff: 196

**Total Participants: 764**

We have established a secondary endpoint in order to power each hospital site individually. After achieving our primary endpoint of 764 participants, we will submit an amendment to continue enrollment to the secondary endpoint of 2,468.

SGM Patients: 568
Non-SGM Patients: 568
Non-responding Patients: 568
Blank Field Patients: 568
ED Staff: 196

**Total Participants: 2,468**

At the Partner hospital sites, we will enroll 284 patients and 98 staff members for the primary endpoint and 1136 patients and 98 staff members for the secondary endpoint.

Briefly describe study procedures. Include any local site restrictions, for example, “Subjects enrolled at Partners will not participate in the pharmacokinetic portion of the study.” Describe study endpoints.

Conduct:

The trial will take place according to the following procedures:

Mode 0: Qualified study staff members will train registrars and nurses to collect SO/GI information using a standardized protocol across all four hospital sites. The in-person trainings will be approximately 20 minute interactive sessions. Topics to be covered include SO/GI terminology, importance of SO/GI collection, SGM health disparities, and best practices for collection.

Mode 1 (0-6 months): Following the current standard practice, nurses will verbally collect SO/GI information from patients. Nurses will ask patients for this information during the collection of social history, where the SO/GI data fields are currently located in the EPIC system.

Following collection, there will be triggered follow-up with SGM, non-SGM, and non-responding patients. Before patients are discharged from the ED, we will administer a brief satisfaction survey to eligible patients electronically.

Mode 2 (6-12 months): This mode of the study will be implemented as research, using a new tool to collect information in the emergency department. Registrars will use an electronic form to non-verbally collect SO/GI information from patients. Upon arrival to the ED, patients undergo initial registration as part of which basic information, including name, insurance status, and social security number is collected. Later, registrars perform full registration at the bedside. During bedside registration, registrars will give patients an electronic form to complete via tablet. On the form, patients will be allowed to opt-in to discussing their SO/GI verbally with a nurse or opt-out from providing SO/GI information. The nurse will review the data and verbally confirm the SO/GI of the patient if the data field is unfilled or if the patient has indicated a preference for nurse verbal collection on the form.

Following collection, there will be triggered follow-up with SGM, non-SGM, and non-responding patients prior to their discharge from the ED. RAs will identify patients for follow-up using a Workbench Report, an internal EPIC report that will allow RAs to view the SO/GI data fields within patient charts in an efficient, secure manner. RAs will administer a brief satisfaction survey to eligible patient via electronic tablet.

Outcomes:

The primary outcome of the study is patient satisfaction. Patient satisfaction will be assessed using a survey consisting of the Leadership Commitment subscale of the Communications Climate Assessment Toolkit, and questions regarding acceptability, satisfaction and comfort with the information collection process. Survey data will be matched to the EHR entry using one-to-one linking based on encounter number, and de-identified prior to analysis. This data management process will be facilitated by institutionally approved data stewards on the research study team.
The secondary outcomes are (1) ED staff satisfaction; and (2) the proportion of patients reporting SO and GI in each mode. The ED staff satisfaction survey will consist of basic demographics (age, race, role in ED, SO/GI) and questions regarding the feasibility, acceptability, and utility of each method of information collection.

**Analytic Methods:**

Quantitative data collected during the survey process, including responses to questions graded on Likert-scales will be examined across various groups of interest as raw and standardized scores using Student’s t-test, Wilcoxon Rank-sum tests and where appropriate across multiple groups, analysis of variance (ANOVA). Differences of proportion arising from questions requiring dichotomous or categorical responses will be examined using Chi-square and Fisher’s exact tests. These analyses will be principally descriptive in nature. Regression models (linear, logistic, ordered logistic, etc.) will also be used to examine relative differences between group responses controlling for factors such as SGM strata, health care provider type (physician, nurse, etc), respondent age, gender and race (where available). All analyses will be conducted using STATA and/or SAS statistical packages.

For studies involving treatment or diagnosis, provide information about standard of care at Partners (e.g., BWH, MGH) and indicate how the study procedures differ from standard care. Provide information on available alternative treatments, procedures, or methods of diagnosis.

This study does not involve a treatment or diagnosis.

Describe how risks to subjects are minimized, for example, by using procedures which are consistent with sound research design and which do not unnecessarily expose subjects to risk or by using procedures already being performed on the subject for diagnostic or treatment purposes.

Collection of SO/GI information is standard care adhering to recommendations from the Institute of Medicine and The Joint Commission, and recent Meaningful Use Stage 3 guidelines from the Center for Medicare and Medicaid Services. In addition, preliminary research demonstrates that patients are willing to have SO/GI collected and believe that is important for ED providers to know SO/GI in order to provide the best individual care. Therefore, collection of this information presents minimal risk to the patient. The research staff’s training and experience will ensure that the intervention is administered in a way that minimizes psychological risks to study participants. The educational component of Mode 0 serves to train ED providers and staff to collect SO/GI information from patients in a safe and respectful manner and includes appropriate responses to frequently asked patient questions. RAs will be advised to be alert for signs of subject discomfort during the follow-up survey and notify the PI of any concerns.

There are no physical risks to the participants in this study. Participants will be informed that all responses to the survey are confidential and will be used for research purposes only, that their care at the particular healthcare facility will not be affected by their decision regarding participation, and that they may choose not to answer a question and stop participation at any time. Patients will be provided with contact information for the Patient/Family Relations Department at Brigham and Women’s Hospital and Patient Advocates at Brigham and Women’s Faulkner Hospital use as additional resources if
experiencing discomfort. Survey completion will be actively monitored by the research staff that will observe standard hospital policies and guidelines for patient safety and confidentiality.

Describe explicitly the methods for ensuring the safety of subjects. Provide objective criteria for removing a subject from the study, for example, objective criteria for worsening disease/lack of improvement and/or unacceptable adverse events. The inclusion of objective drop criteria is especially important in studies designed with placebo control groups.

We anticipate no safety risks to subjects as a result of participation in the study. ED staff will be trained to routinely collect SO/GI information in a manner that creates a safe environment for patients to disclose sensitive information. Survey completion will be actively monitored by the research staff that will observe standard hospital policies and guidelines for patient safety and confidentiality. The principal investigator will oversee the conduct of all study activities. Any incidents or concerns regarding survey administration and data collection will be immediately addressed by the research staff. Research staff will be advised to refer a patient to the Patient/Family Relations Department at Brigham and Women’s Hospital and Patient Advocates at Brigham and Women’s Faulkner Hospital to address any further concerns or discomforts.

FORESEEABLE RISKS AND DISCOMFORTS

Provide a brief description of any foreseeable risks and discomforts to subjects. Include those related to drugs/devices/procedures being studied and/or administered/performed solely for research purposes. In addition, include psychosocial risks, and risks related to privacy and confidentiality. When applicable, describe risks to a developing fetus or nursing infant.

The survey questions regarding SO/GI have the potential to cause minor psychosocial discomfort to study participants, and elicit emotions such as worry/fear, anger or confusion. However, the emotions evoked by collection are an important finding of this study. Research staff members have been trained in SGM cultural competency to promote sensitivity when engaging patients in conversations involving SO/GI. To ensure patient safety, the research team includes the Vice Chair of Quality and Safety for the Department of Emergency Medicine of the Brigham and Women’s Hospital and Director of Patient Relations and Family Centered Care at Johns Hopkins Hospital, who will advise on concerns of participant risks and discomforts.

An additional risk associated with participation in this research would be the effects of an unforeseen and unintentional breach of confidentiality. Satisfaction surveys will be administered on a secure, password protected tablet by research assistants trained in standard hospital policies for patient safety and confidentiality. Breach of confidentiality will be minimized by using an internal Epic Workbench Report located on secure Partners computers to identify patients.
EXPECTED BENEFITS

Describe both the expected benefits to individual subjects participating in the research and the importance of the knowledge that may reasonably be expected to result from the study. Provide a brief, realistic summary of potential benefits to subjects, for example, “It is hoped that the treatment will result in a partial reduction in tumor size in at least 25% of the enrolled subjects.” Indicate how the results of the study will benefit future patients with the disease/condition being studied and/or society, e.g., through increased knowledge of human physiology or behavior, improved safety, or technological advances.

Study participants will receive $10 gift cards as compensation for completion of the follow-up survey. Participants may receive better care due to the providers’ awareness of their SO/GI information. The results of this study will benefit the SGM community by improving understanding of the most patient-centered and efficient ways to collect SO/GI information in the ED. Collection of this information will allow health providers to deliver more inclusive, quality care to all patients and allow researchers to better identify health disparities facing SGM patients.

EQUITABLE SELECTION OF SUBJECTS

The risks and benefits of the research must be fairly distributed among the populations that stand to benefit from it. No group of persons, for example, men, women, pregnant women, children, and minorities, should be categorically excluded from the research without a good scientific or ethical reason to do so. Please provide the basis for concluding that the study population is representative of the population that stands to potentially benefit from this research.

We will not exclude individuals based on race, ethnicity, or gender. For the triggered follow-up survey, we will target and oversample members of the SGM subgroups. This targeted recruitment will ensure that the study population will be representative of the SO/GI minority groups and greater population that stands to benefit from this research.

When people who do not speak English are excluded from participation in the research, provide the scientific rationale for doing so. Individuals who do not speak English should not be denied participation in research simply because it is inconvenient to translate the consent form in different languages and to have an interpreter present.

We are going to conduct this study only in English. The surveys are currently validated only in English. We expect all providers to be fluent in English. If necessary, we will attempt to validate the patient survey in other languages, e.g., Spanish.

For guidance, refer to the following Partners policy:

 Obtaining and Documenting Informed Consent of Subjects who do not Speak English
RECRUITMENT PROCEDURES

Explain in detail the specific methodology that will be used to recruit subjects. Specifically address how, when, where and by whom subjects will be identified and approached about participation. Include any specific recruitment methods used to enhance recruitment of women and minorities.

Mode 1: Nurses will be instructed to collect SO/GI information from all patients receiving care at the ED as part of standard of care. RAs stationed within the ED will conduct targeted outcome surveys on eligible patients towards the end of their ED visit.

Mode 2: Registrars will administer an electronic form to collect SO/GI information from all patients in the ED; this electronic form is a new tool implemented as part of the research study. ED RAs will collect targeted outcome surveys from willing eligible patients prior to discharge.

An internal EPIC Workbench Report will be used to identify patients for triggered follow-up. The report will identify all patients admitted in the BWH Emergency Department and provide the following information: patient name, contact serial number, date of birth, ED location, level of service in the ED, department status, emergency severity index, attending physician, assigned nurse, race, ethnicity, marital status, religion, education, sexual orientation, sex assigned at birth, and gender identity. These variables are to be used for research purposes only, in the identification of patients for follow up outcome surveys in Modes 1 and 2, and for survey data analysis.

The staff satisfaction survey will be administered during the last four weeks of each mode to registrars and nurses participating in SO/GI collection in the ED. The surveys will be conducted using the web-enabled RedCap application. Participants will receive unique log-in information for accessing the secure online survey. Emails will be sent throughout the four-week period inviting them to participate in research. The participants can choose to opt out, if not interested in completing the survey.

Provide details of remuneration, when applicable. Even when subjects may derive medical benefit from participation, it is often the case that extra hospital visits, meals at the hospital, parking fees or other inconveniences will result in additional out-of-pocket expenses related to study participation. Investigators may wish to consider providing reimbursement for such expenses when funding is available.
CONSENT PROCEDURES

Explain in detail how, when, where, and by whom consent is obtained, and the timing of consent (i.e., how long subjects will be given to consider participation). For most studies involving more than minimal risk and all studies involving investigational drugs/devices, a licensed physician investigator must obtain informed consent. When subjects are to be enrolled from among the investigators’ own patients, describe how the potential for coercion will be avoided.

Mode 1: As this mode is a part of standard of care, consent is not necessary for nurse verbal collection of SO/GI. Informed consent for the follow-up patient satisfaction survey will take place in the ED prior to patient discharge. Completion of the survey will imply consent to participate. RAs will give a tablet to eligible patients on which they will be presented with an electronic consent form. Patients will be given the option to proceed with consent or decline to participate in the study.

Mode 2: Registrars will give a tablet to all patients during registration in the ED. Patients will be presented with an electronic consent form, and given the option to proceed with consent or decline to complete the form for SO/GI collection and participate in the satisfaction survey. Completion of the form and survey will imply consent to participate.

Staff participants will be provided with an electronic consent form at the start of the satisfaction survey. The consent form includes a written statement about the research followed by a button confirming that they agree to participate in this research study.

There are four consent forms included in the protocol:
Consent for EQUALITY Non-Verbal SO/GI Collection Form: An implied consent form for patients to be used in the Mode 2 non-verbal form collection. As electronic forms are not standard of care, a consent form is needed for research to implement this new tool of collection.

Consent for EQUALITY Phase III ED Staff Outcomes Survey: An implied consent form for staff members involved in SO/GI collection to complete the staff satisfaction survey.

Consent for EQUALITY Phase III Patient Baseline Survey: An implied consent form for ED patients to complete the baseline patient satisfaction survey. This survey will be administered before the beginning of Mode 1 to establish a baseline comparison point for patient satisfaction.

Consent for EQUALITY Phase III Patient Outcomes Survey: An implied consent form for ED patients to complete the baseline patient satisfaction survey. This survey will be administered before the beginning of Mode 1 to establish a baseline comparison point for patient satisfaction.

NOTE: When subjects are unable to give consent due to age (minors) or impaired decision-making capacity, complete the forms for Research Involving Children as Subjects of Research and/or Research Involving Individuals with Impaired Decision-making Capacity, available on the New Submissions page on the PHRC website:

https://partnershealthcare.sharepoint.com/sites/phrmApply/aieipa/irb

For guidance, refer to the following Partners policy:

Informed Consent of Research Subjects:


DATA AND SAFETY MONITORING

Describe the plan for monitoring the data to ensure the safety of subjects. The plan should include a brief description of (1) the safety and/or efficacy data that will be reviewed; (2) the planned frequency of review; and (3) who will be responsible for this review and for determining whether the research should be altered or stopped. Include a brief description of any stopping rules for the study, when appropriate. Depending upon the risk, size and complexity of the study, the investigator, an expert group, an independent Data and Safety Monitoring Board (DSMB) or others might be assigned primary responsibility for this monitoring activity.

NOTE: Regardless of data and safety monitoring plans by the sponsor or others, the principal investigator is ultimately responsible for protecting the rights, safety, and welfare of subjects under his/her care.
Satisfaction surveys will be conducted through the secure RedCap data collection system that study staff will access via the web and their personal username and password. Data entered into forms will be de-identified and electronically encrypted using secure socket layering encryption technology. Data will be stored on a secure, password-protected server only accessible by designated research staff. Only the minimal amount of information needed to accomplish the study’s aims will be maintained. Only the PI and the researchers doing the data analysis will have access to the server. The link to the identifiers and the data will be stored for a minimum period of 7 years. The PI will be responsible for reviewing the data and for the confidentiality of the data

Describe the plan to be followed by the Principal Investigator/study staff for review of adverse events experienced by subjects under his/her care, and when applicable, for review of sponsor safety reports and DSMB reports. Describe the plan for reporting adverse events to the sponsor and the Partners’ IRB and, when applicable, for submitting sponsor safety reports and DSMB reports to the Partners’ IRBs. When the investigator is also the sponsor of the IND/IDE, include the plan for reporting of adverse events to the FDA and, when applicable, to investigators at other sites.

NOTE: In addition to the adverse event reporting requirements of the sponsor, the principal investigator must follow the Partners Human Research Committee guidelines for Adverse Event Reporting

Unanticipated problems and adverse events (e.g. complaints, breaches of confidentiality, etc) will be reported to the PI and discussed within the research team to determine a safe, effective course of action. The research team includes the Vice Chair of Quality, Patient Safety and Performance Improvement for the Department of Emergency Medicine at BWH and Director of Patient Relations and Family Centered Care at Johns Hopkins Hospital to ensure patient safety and institutionally approved data stewards to address any concerns with data usage and protection.

Unanticipated problems and adverse events will be reported to the IRB within 5 working days/7 calendar days of the PI becoming aware of the event via Insight/eIRB.

MONITORING AND QUALITY ASSURANCE

Describe the plan to be followed by the principal investigator/study staff to monitor and assure the validity and integrity of the data and adherence to the IRB-approved protocol. Specify who will be responsible for monitoring, and the planned frequency of monitoring. For example, specify who will review the accuracy and completeness of case report form entries, source documents, and informed consent.

NOTE: Regardless of monitoring plans by the sponsor or others, the principal investigator is ultimately responsible for ensuring that the study is conducted at his/her investigative site in accordance with the IRB-approved protocol, and applicable regulations and requirements of the IRB.

The PI will be in regular communication with the Director of Quality, Patient Safety and Performance Improvement for the Department of Emergency Medicine at BWH, who is a co-investigator for the
study, in order to discuss enrollment, survey completion and any other issues. The research team will have weekly meetings to discuss the progress of the study. The principal investigator will ultimately be responsible for the conduct of the study.

For guidance, refer to the following Partners policies:

Data and Safety Monitoring Plans and Quality Assurance


Reporting Unanticipated Problems (including Adverse Events)

https://partnershealthcare-public.sharepoint.com/ClinicalResearch/Reporting_Unanticipated_Problems_including_Adverse_Events.pdf

PRIVACY AND CONFIDENTIALITY

Describe methods used to protect the privacy of subjects and maintain confidentiality of data collected. This typically includes such practices as substituting codes for names and/or medical record numbers; removing face sheets or other identifiers from completed surveys/questionnaires; proper disposal of printed computer data; limited access to study data; use of password-protected computer databases; training for research staff on the importance of confidentiality of data, and storing research records in a secure location.

NOTE: Additional measures, such as obtaining a Certificate of Confidentiality, should be considered and are strongly encouraged when the research involves the collection of sensitive data, such as sexual, criminal or illegal behaviors.

The anticipated risk to the privacy and confidentiality of subjects will be minimized through observance of institutional and research policies and procedures set in place for that purpose. Satisfaction surveys will be conducted through the secure RedCap data collection system that study staff will access via the web and their personal username and password. Data entered into forms will be de-identified and electronically encrypted using secure socket layering encryption technology. Data will be stored on a secure, password protected server only accessible by designated research staff. Only the minimal amount of information needed to accomplish the study’s aims will be maintained. All research staff
members have undergone CITI and HIPAA training, and are well-informed of the importance of confidentiality of data.

Tablets used for research purposes will be password protected and only accessible by research personnel. All information on the tablet will be erased. De-identified research data and materials will be maintained by the BWH Department of Surgery for a minimum of 7 years, post-publication.

SENDING SPECIMENS/DATA TO RESEARCH COLLABORATORS OUTSIDE PARTNERS

Specimens or data collected by Partners investigators will be sent to research collaborators outside Partners, indicate to whom specimens/data will be sent, what information will be sent, and whether the specimens/data will contain identifiers that could be used by the outside collaborators to link the specimens/data to individual subjects.

No specimens are collected for this study. No data will be sent to research collaborators outside of Partners.

Specifically address whether specimens/data will be stored at collaborating sites outside Partners for future use not described in the protocol. Include whether subjects can withdraw their specimens/data, and how they would do so. When appropriate, submit documentation of IRB approval from the recipient institution.

Data will not be stored at collaborating sites outside Partners for future use.

RECEIVING SPECIMENS/DATA FROM RESEARCH COLLABORATORS OUTSIDE PARTNERS

When specimens or data collected by research collaborators outside Partners will be sent to Partners investigators, indicate from where the specimens/data will be obtained and whether the specimens/data will contain identifiers that could be used by Partners investigators to link the specimens/data to individual subjects. When appropriate, submit documentation of IRB approval and a copy of the IRB-approved consent form from the institution where the specimens/data were collected.

N/A
### Appendix 7. ClinicalTrials.gov Tables

<table>
<thead>
<tr>
<th>Arm/Group Title</th>
<th>Mode 0</th>
<th>Mode 1</th>
<th>Mode 2</th>
<th>Total (Not public)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arm/Group Description</td>
<td>Patients who were not asked their S...</td>
<td>Patients who were verbally asked by...</td>
<td>Patients whose SO/GI was collected ...</td>
<td></td>
</tr>
</tbody>
</table>

**Period Title: Overall Study**

<table>
<thead>
<tr>
<th></th>
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<th>Mode 2</th>
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<tr>
<td>Not Completed</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

[^1] Patients who completed a follow-up survey

[^2] Total patients included in analysis
<table>
<thead>
<tr>
<th>Arm/Group Title</th>
<th>Mode 0</th>
<th>Mode 1</th>
<th>Mode 2</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arm/Group Description</td>
<td>Patients who were not asked their SO/GI</td>
<td>Patients who were verbally asked by a nurse their SO/GI</td>
<td>Patients whose SO/GI was collected non-verbally on a form</td>
<td></td>
</tr>
<tr>
<td>Overall Number of Baseline</td>
<td>209</td>
<td>342</td>
<td>198</td>
<td>749</td>
</tr>
<tr>
<td>Participants</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline Analysis Population</td>
<td>Patients who were not asked their SO/GI or who provided their SO/GI in the ED via verbal or nonverbal collection and completed a patient outcome survey</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age, Customized Mean (Standard</td>
<td>209 participants</td>
<td>342 participants</td>
<td>198 participants</td>
<td>749</td>
</tr>
<tr>
<td>Deviation)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit of measure: years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>48 (17.2)</td>
<td>38.5 (13.5)</td>
<td>33 (12.3)</td>
<td>39.3 (15.2)</td>
</tr>
<tr>
<td>Sex/Gender, Customized Measure</td>
<td>Number Analyzed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type: Count of Participants</td>
<td>209 participants</td>
<td>342 participants</td>
<td>198 participants</td>
<td>749</td>
</tr>
<tr>
<td>Unit of measure: participants</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>Female</td>
<td>Transgender Male to Female</td>
<td>Transgender Female to Male</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>--------</td>
<td>---------</td>
<td>-----------------------------</td>
<td>-----------------------------</td>
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<tr>
<td></td>
<td>97</td>
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<td></td>
<td>75</td>
<td>149</td>
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<td>3</td>
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<tr>
<td></td>
<td>21.93%</td>
<td>43.57%</td>
<td>0.29%</td>
<td>0.88%</td>
</tr>
<tr>
<td></td>
<td>32</td>
<td>85</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>16.16%</td>
<td>42.93%</td>
<td>0.51%</td>
<td>1.01%</td>
</tr>
<tr>
<td></td>
<td>204</td>
<td>341</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>27.24%</td>
<td>45.53%</td>
<td>0.27%</td>
<td>0.67%</td>
</tr>
<tr>
<td>Race/Ethnicity, Customized Measure Type: Count of Participants</td>
<td>Number Analyzed</td>
<td>209 participants</td>
<td>342 participants</td>
<td>198 participants</td>
</tr>
<tr>
<td>-------------------------------------------------------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
<td>----------------</td>
</tr>
<tr>
<td>White</td>
<td></td>
<td>69 participants</td>
<td>123 participants</td>
<td>77 participants</td>
</tr>
<tr>
<td></td>
<td></td>
<td>33.01%</td>
<td>35.96%</td>
<td>38.89%</td>
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<td>Black</td>
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<td>78 participants</td>
<td>178 participants</td>
<td>85 participants</td>
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<td></td>
<td></td>
<td>37.32%</td>
<td>52.05%</td>
<td>42.93%</td>
</tr>
<tr>
<td>Asian</td>
<td></td>
<td>4 participants</td>
<td>3 participants</td>
<td>2 participants</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.91%</td>
<td>0.88%</td>
<td>1.01%</td>
</tr>
<tr>
<td>American Indian</td>
<td></td>
<td>0 participants</td>
<td>1 participant</td>
<td>3 participants</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0%</td>
<td>0.29%</td>
<td>1.52%</td>
</tr>
<tr>
<td>Native Hawaiian</td>
<td></td>
<td>0 participants</td>
<td>0 participants</td>
<td>1 participant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0%</td>
<td>0%</td>
<td>0.51%</td>
</tr>
<tr>
<td>Hispanic</td>
<td></td>
<td>17 participants</td>
<td>30 participants</td>
<td>25 participants</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8.13%</td>
<td>8.77%</td>
<td>12.63%</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>3 participants</td>
<td>4 participants</td>
<td>4 participants</td>
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<td></td>
<td></td>
<td>1.44%</td>
<td>1.17%</td>
<td>2.02%</td>
</tr>
<tr>
<td>Unknown</td>
<td>Mode 0</td>
<td>Mode 1</td>
<td>Mode 2</td>
<td>Total</td>
</tr>
<tr>
<td>-----------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>1.44%</td>
<td>0.58%</td>
<td>0%</td>
<td>0.67%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Declined</th>
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<th>Mode 2</th>
<th>Total</th>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>0.48%</td>
<td>0.29%</td>
<td>0.51%</td>
<td>0.4%</td>
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</table>

<table>
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<tr>
<th>Missing</th>
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<th>Mode 2</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>34</td>
<td>0</td>
<td>0</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>16.27%</td>
<td>0%</td>
<td>0%</td>
<td>4.54%</td>
</tr>
</tbody>
</table>

### Primary Outcome

**Title:** Communication Climate Assessment Toolkit Questionnaire (Patient)

**Description:** Measures patient satisfaction as reported on the CCAT

**Time Frame:** Through study completion (approximately 1 year)

**Analysis Population Description:** Patients who were not asked SO/GI or who provided their SO/GI in the ED via verbal or nonverbal collection and provided complete data on the patient outcome survey

<table>
<thead>
<tr>
<th>Arm/Group Title</th>
<th>Mode 0</th>
<th>Mode 1</th>
<th>Mode 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Arm/Group Description:</strong></td>
<td>Patients who were not asked their SO/GI</td>
<td>Patients who were verbally asked by a nurse their SO/GI</td>
<td>Patients whose SO/GI was collected non-verbally on a form</td>
</tr>
<tr>
<td>Overall Number of Participants Analyzed</td>
<td>209</td>
<td>342</td>
<td>198</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Mean (Standard Deviation)</td>
<td>92.78 (18.05)</td>
<td>91.32 (18.52)</td>
<td>94.14 (13.44)</td>
</tr>
<tr>
<td>Unit of Measure: Score</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Secondary Outcome

<table>
<thead>
<tr>
<th>Title: Staff-reported Outcomes Measure Questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description: Measures responses to the staff survey question, &quot;Did you experience difficulty collecting sexual orientation data from patients?&quot;</td>
</tr>
<tr>
<td>Time Frame: Through study completion (approximately 1 year)</td>
</tr>
<tr>
<td>Analysis Population Description</td>
</tr>
<tr>
<td>Nurses who completed staff outcome surveys</td>
</tr>
<tr>
<td>Registrars who completed staff outcome surveys</td>
</tr>
<tr>
<td>Arm/Group Title</td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>Arm/Group Description:</td>
</tr>
<tr>
<td>Arm/Group Description:</td>
</tr>
<tr>
<td>Overall Number of Participants Analyzed</td>
</tr>
<tr>
<td>Measure Type: Count of Participants</td>
</tr>
<tr>
<td>Unit of Measure: participants</td>
</tr>
<tr>
<td>Category Title</td>
</tr>
<tr>
<td>Never/rarely</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Sometimes</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Usually/Always</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
## Secondary Outcome

<table>
<thead>
<tr>
<th>Title: Proportion of Patients Reporting SO/GI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong> Measures the proportion of patients from whom SO/GI was collected</td>
</tr>
<tr>
<td><strong>Time Frame:</strong> Through study completion (approximately 1 year)</td>
</tr>
<tr>
<td><strong>Analysis Population Description:</strong> All patients who were seen in the ED during the intervention periods</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Arm/Group Title</th>
<th>Mode 1</th>
<th>Mode 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Arm/Group Description:</strong></td>
<td>Patients who had SO/GI recorded in the EHR of all adult ED patients</td>
<td>Patients who had SO/GI recorded in the EHR of all adult ED patients</td>
</tr>
<tr>
<td><strong>Overall Number of Participants Analyzed:</strong></td>
<td>109994</td>
<td>88143</td>
</tr>
<tr>
<td><strong>Measure Type: Count of Participants</strong></td>
<td>19742</td>
<td>3630</td>
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<tr>
<td><strong>Unit of Measure: participants</strong></td>
<td>17.95%</td>
<td>4.12%</td>
</tr>
</tbody>
</table>
Disclaimer:
The [views, statements, opinions] presented in this report are solely the responsibility of the author(s) and do not necessarily represent the views of the Patient-Centered Outcomes Research Institute® (PCORI®), its Board of Governors or Methodology Committee.

Acknowledgement:
Research reported in this report was [partially] funded through a Patient-Centered Outcomes Research Institute® (PCORI®) Award (#AD-110114-IC) Further information available at: