**APPENDIX 1. TIMELINE FOR TRANSFORMING
PRIMARY CARE FOR LGBT PEOPLE INTERVENTION**

Project ECHO	Practice Improvement Collaborative

MARCH 1, 2016 — Technical Assistance: SOGI data collection, sexual health screening, process mapping

MARCH 16, 2016 — LM: QI principles, SOGI, sexual health screening, STD screening

APRIL 1, 2016
LGBT basics — QI team coaching calls
Sexual history
STD prevention & screening

MAY 1, 2016 — QI team coaching calls
Substance use & abuse
Cancer prevention & screening

JUNE 1, 2016 — QI team coaching calls
Virtual LM: Stakeholder analysis
Smoking prevention & screening

JULY 1, 2016
Depression, anxiety, & suicidality — QI team coaching calls
Transgender health: Preventive health care

AUGUST 1, 2016
Domestic violence — QI team coaching calls
Universal HIV screening

SEPTEMBER 1, 2016
Open discussion — QI team coaching calls
Coming out — Virtual LM: Provider engagement, sexual history

OCTOBER 1, 2016
HIV treatment as prevention — QI team coaching calls
PrEP and PEP

NOVEMBER 1, 2016
Monitoring HIV medication adherence — QI team coaching calls
Youth: Identities, terms, & development

DECEMBER 1, 2016
Youth: Family issues — QI team coaching calls
Youth: Caring for gender dysphoric youth & families — Virtual LM: Successes, challenges, process maps, and action plans

JANUARY 1, 2017
Open — QI team coaching calls
Conceiving & raising families

FEBRUARY 1, 2017
Older adults — QI team coaching calls
Transgender health: Behavioral health

MARCH 1, 2017
Transgender health: Hormone therapy — QI team coaching calls
Transgender health: Surgery overview & aftercare

MARCH 30, 2017 — LM: Year end review of accomplishments and next steps

KEY
SOGI= Sexual orientation and gender identity
LM= Learning Meeting
QI= Quality improvement
PrEP= Pre-exposure prophylaxis
PEP= Post-exposure prophylaxis
STD= Sexually transmitted disease

Supplemental Appendix 2. Practice Assessment Survey
Transforming Primary Care for LGBT People

Note to Readers: This assessment was originally developed as an online survey. The document you see here is a text version of the online survey.

Q1. Please select your health center from the list below (dropdown).

Q2. Person completing survey:
      Name_____
      Role at Health Center _____
      Please provide email for any follow-up questions _____

Q3. The assigned improvement team for the LGBT project will primarily report progress to which senior leader? If needed, this person will be contacted by Weitzman Project Staff to discuss overall team performance.
      Senior Leader Name _____
      Senior Leader's Role _____
      Email _____

Q4. Employee training related to LGBT health services. Select all that apply:

	During the orientation and onboarding of ALL New Hires	During the orientation of Providers ONLY	CME or Conference (Self-directed by employee)	Organizational Grand Rounds (q 1-2 years)	No, but interested in identifying resources to support this training
Employees receive training related to medical decision making for LGBT preventive health services	☐	☐	☐	☐	☐
Employees are trained related to the behavioral health needs of LGBT clients	☐	☐	☐	☐	☐
Employees are trained on patient disclosure of LGBT status and confidentiality of information	☐	☐	☐	☐	☐
Employees are trained in cultural competent care and service delivery	☐	☐	☐	☐	☐

Q5. Organizational Health Center Policies

	Yes, policy revised at least once year or every two years	Yes, policy in place but needs review	No, but interested in identifying resources to guide policy development
Do the policies at your health center specifically protect staff from discrimination based on sexual orientation?	☐	☐	☐
Do the policies at your health center specifically protect staff from discrimination based on gender identity and/or gender expression?	☐	☐	☐
Does your health center have clear mechanisms for reporting and addressing discrimination or disrespectful treatment toward LGBT clients or staff?	☐	☐	☐
Does your health center have clear policy protecting patients based on gender identity and/or gender expression	☐	☐	☐

Q6. How often do providers at your health center:

	Initial visit only	At least annually	At least every 3-6 months	At every visit	Rarely, most providers routinely DO NOT ask or great variation of providers
Speak with clients about their sexual orientation (refers to lesbian, gay, bisexual, heterosexual, or something else)	☐	☐	☐	☐	☐
Speak with clients about their gender identity (a person's internal sense of being male, female, both, or other)	☐	☐	☐	☐	☐

Q7. Are all patients asked Sexual Orientation and Gender Identity (SOGI) questions?
   ☐ Yes
   ☐ No
   ☐ If Yes, at least annually
   ☐ If Yes, at every visit
   ☐ If Yes, at least every 3-6 months

Q8. Check the SOGI data categories used in your health center's EMR (or plan to use, if not implemented yet)

- ☐ Male
- ☐ Female
- ☐ Male at birth
- ☐ Female at birth
- ☐ Straight or Heterosexual
- ☐ Genderqueer, neither exclusively male nor female
- ☐ Asexual
- ☐ Gay
- ☐ Lesbian
- ☐ Homosexual
- ☐ Bisexual
- ☐ Lesbian, gay, or homosexual
- ☐ Lesbian, gay, bisexual, or homosexual
- ☐ Transgender
- ☐ Transgender M>F
- ☐ Transgender F>M
- ☐ I don't know the answer
- ☐ Prefer not to answer
- ☐ Something else, please describe

Q9. Describe your health center's method of capturing "Sexual Orientation and Gender Identity" (SOGI) and "Preferred Name and Pronoun" data. The information from this question will help us assess technical assistance needed by participating centers. Reminder, check an answer for both columns and in some cases two answers may apply to your site.

	SOGI Data Fields	Preferred Name and pronoun
Paper format (not entered into EHR)	☐	☐
Integrated in electronic health records	☐	☐
EMR structured data in demographic field	☐	☐
EMR structured data in risk behaviors field	☐	☐
EMR structured data in behavioral health information	☐	☐
Unstructured in EMR, free text capture	☐	☐
EMR Smart Form	☐	☐
Data not captured at this time		

Q10. If CURRENTLY collecting SOGI data, at what point(s) of the patient visit does this occur? (Check all that apply). If NOT collecting SOGI data, select the option "data not captured at this time" to move to the next question

- ☐ At registration
- ☐ At check-in with Medical Assistance or Nurse
- ☐ In the patient room visit with the provider
- ☐ Prior to visit using Patient Portal
- ☐ Data not captured at this time

Q11. Which stage of implementation is your health center at for the below listed items?

	Not available	Planning & development	Actively testing before implementing across the health center	Full available and operational
LGBT services posted to our website	☐	☐	☐	☐
LGBT educational brochures	☐	☐	☐	☐
LGBT signage clearly posted in public areas	☐	☐	☐	☐
Staff member identified as a LGBT liaison or navigator for clients	☐	☐	☐	☐
LGBT specific provides are made known to clients	☐	☐	☐	☐
LGBT advisory group	☐	☐	☐	☐

Q12. Describe the partnerships your health center uses to provider STD screening and treatment (e.g. HIV, Hep C, and STI) to meet the needs of LGBT clients by choosing all that apply.

☐ No referrals to partners are required to screen and treat STDs. Health center initiates test in-house and sends to lab
☐ Public health department
☐ LGBT center of excellence
☐ Faith based organizations
☐ Emergency department
☐ Specialist providers (i.e. infectious disease for all patients with HIV, Hep C)
☐ Other type of partner, please list _____

Q13. Use the slider below to indicate the best estimated percentage of your patients who are:

	0	10	20	30	40	50	60	70	80	90	100
Living with HIV?											
Of patients at RISK for HIV, what percent are taking PrEP?											

Q14. At your health center, what is the *comfort level* across providers in prescribing PrEP?

☐ 1 = very poor
☐ 2 = poor
☐ 3 = fair
☐ 4 = high
☐ 5 = very high

Q15. Of the patients living with HIV, are you able to breakdown by LGBT categories?

☐ No
☐ Yes, reports generated out of our EMR
☐ Yes, currently using in-house staff with expertise in data analytic
☐ Yes, use consulting services to run special reports
☐ Yes, but generated using different analytic software. Please tell us vendor name in box below:

Q16. How does you health center conduct the following screenings? (Check all that apply)

	Tests done routinely for everyone	Based on sexual risk assessment	Based on HIV status	Based on provider's discretion	Not a standard practice at our health center
Chlamydia-uretha	☐	☐	☐	☐	☐
Chlamydia-rectum	☐	☐	☐	☐	☐
Chlamydia-pharynx	☐	☐	☐	☐	☐
Gonorrhea-uretha	☐	☐	☐	☐	☐
Gonorrhea-rectum	☐	☐	☐	☐	☐
Gonorrhea-pharynx	☐	☐	☐	☐	☐
Syphilis	☐	☐	☐	☐	☐
4th generation HIV testing	☐	☐	☐	☐	☐
Hep C screening Baby Boomers	☐	☐	☐	☐	☐
Hep C screening IV drug users	☐	☐	☐	☐	☐

Q17. What are the time frames utilized to guide screening for "men who have sex with men" (MSM) clients at your health center?

	At least annually for MSM clients	>1 yr for MSM clients based on risk assessment	Unable to identify MSM population for targeted screening	Test not ordered at this time, regardless of sexual behavior
Chlamydia-uretha	☐	☐	☐	☐
Chlamydia-rectum	☐	☐	☐	☐
Chlamydia-pharynx	☐	☐	☐	☐
Gonorrhea-uretha	☐	☐	☐	☐
Gonorrhea-rectum	☐	☐	☐	☐
Gonorrhea-pharynx	☐	☐	☐	☐
Syphilis	☐	☐	☐	☐
4th generation HIV testing	☐	☐	☐	☐
Hep C screening	☐	☐	☐	☐

Q18. What are the time frames utilized to guide screenings for transgender clients at your health center?

	At least annually for transgender clients	>1 yr for transgender clients based on risk assessment	Unable to identify transgender population for targeted screening	Test not ordered at this time, regardless of gender status
Chlamydia-uretha	☐	☐	☐	☐
Chlamydia-rectum	☐	☐	☐	☐
Chlamydia-pharynx	☐	☐	☐	☐
Gonorrhea-uretha	☐	☐	☐	☐
Gonorrhea-rectum	☐	☐	☐	☐
Gonorrhea-pharynx	☐	☐	☐	☐
Syphilis	☐	☐	☐	☐
4th generation HIV testing	☐	☐	☐	☐
Hep C screening	☐	☐	☐	☐

Q19. At what frequency does your health center prescribe Hepatitis B surface antigen tests (HBsAg) for MSM and transgender clients? (Check all that apply)
- ☐ At least once for all MSM
- ☐ At least once for transgender M-to-F clients
- ☐ If something else, please explain _____

Q20. What areas pose a challenge for providers to discuss sexual orientation/gender identity with clients? Challenge scale: 1 = low; 2 = moderate; 3 = high

	Low	Moderate	High
Lack of experience with this type of discussion with clients	☐	☐	☐
Uncomfortable discussing this subject with clients	☐	☐	☐
Cultural or moral beliefs about sexual orientation	☐	☐	☐
Appropriate language to use to discuss sexual orientation/identity	☐	☐	☐
Offending the client with questions about sexual orientation/identity	☐	☐	☐
Understanding the culture differences related to sexual orientation/identity	☐	☐	☐
Making the client feel comfortable in discussing this subject	☐	☐	☐
Lack of resources and tools to guide the discussion with clients	☐	☐	☐

Q21. Please check the questions used to assess sexual risk behaviors at your health center (Check all that apply)
- ☐ Have you been sexually active within the preceding year (Y/N)
- ☐ If yes; have you engaged in receptive oral intercourse (Y/N)
- ☐ If yes, have you engaged in receptive anal intercourse (Y/S)
- ☐ Have you had sex while drunk or high? (Y/N)
- ☐ Have you had multiple sexual partners? (Y/N)

☐ Have you had anonymous sexual partners (Y/N)
☐ Have you paid for sex? (Y/N)
☐ Have you been paid for sex? (Y/N)
☐ No standardized questions used at this time, but interested
☐ Other, please write question(s) below:_____

Q22. In the past five years, has your health center sponsored training regarding LGBT health care?
☐ LGBT health as Grand Rounds at our health center
☐ Providers supported to attend LGBT conference
☐ STD/HIV prevention training center sponsored training
☐ National LGBT Health Education Center at the Fenway Institute
☐ LGBT Health Education on-demand webinar
☐ No training provided at our health center in five years
☐ Organization not listed, write name below: _____

Q23. Our health center provides the following preventive screening services:

	Alcohol & drug use	Screening and referral to tx for tobacco use	Screening for depression	Assess for risk sexual behaviors	Discuss sexual risk reduction strategies	Not applicable, unable to identify this sub-population
Generally, all patients	☐	☐	☐	☐	☐	☐
HIV positive patients only	☐	☐	☐	☐	☐	☐
LGBT patients only	☐	☐	☐	☐	☐	☐

Q24. If you are conducting preventive screening among your LGBT population, are you able to stratify your data using the following categories?

	Yes	No
Men who have sex with men	☐	☐
Men who have sex with men/women	☐	☐
Women who have sex with women	☐	☐
Women who have with women/men	☐	☐
Transgender clients	☐	☐

Q25. To perform Nucleic Acid Amplification Tests (NAAT), what types of challenges does you health center experience?

  ☐ Access to a validated laboratory
  ☐ Cost to patient
  ☐ Provider knowledge and training on screening, and when to perform the test
  ☐ Insurance barriers, will not cover multiple chlamydia/gonorrhea tests
  ☐ Insurance barriers, will not pay for STD screening of the urethra, pharynx, or rectum
  ☐ No challenges in ordering NAAT screening at our health center
  ☐ If other, please explain _____

Q26. How much experience do providers at your health center have with self-collected specimen testing, especially for non-genital STD screening?

  ☐ Good experience, protocols in place and providers trained
  ☐ Limited experience
  ☐ None at all

Q27. Please provide comments regarding topic(s) you would like faculty to address either as: (a) didactic topic during a Project ECHO or (b) process improvement method to support your practice improvement strategies.

Supplemental Appendix 3.
Imputation Procedure to Obtain Sexually Transmitted Disease Screening Percentages

Weitzman Institute in collaboration with National Association of Health Centers and The Fenway Institute
Funding by Centers for Disease Control and Prevention

    If we are trying to answer the population health question 'What are the screening rates for sexually transmitted disease (STDs) among lesbian, gay, bisexual, and transgender (LGBT) patients in federally qualified health centers (FQHCs)?', we need to divide the number of patients screened n^t_{STD} by a good estimate of the true N^{*t}_{LGBT} of the LGBT patient population (the denominator N_{LGBT}, where t is for each time point t). This estimate can be backed into if we knew the percentage of patients who are LGBT ($N^C_{LGBT}/N^C_{Population}$, where C stand for 'census', or with perfect knowledge, after all patients were asked the SOGI question. Note that when this perfect knowledge is reached, t disappears from N^{*t}_{LGBT} -> N^*_{LGBT}!) .

    The N^t_{LGBT} number, however, was less accurate especially during the first months of the study, primarily because initially providers who asked the SOGI question were those more dedicated to serving LGBT patients (champions), and they enrolled in the project first. They also asked the SOGI question of few patients, and not randomly, but likely more so of potential LGBT patients. This assumption is confirmed by both project staff with knowledge of the FQHCs, and by the trend of the $N^t_{LGBT}/N^t_{askedSOGI}$ rate, which steadily declined from 14.2% to 7.1% (by the end of the study). Because this trend is observed while providers asked more and more of their patients about their SOGI status (from 14% to 47% of the entire patient population, the $N^t_{askedSOGI}/N^t_{Population}$ SOGI asking rate), and the study design followed a census (not sampling) strategy, the bias due to over selection of LGBT patients in the 'asked SOGI' sub-group will diminish steadily, to eventually disappear at some point, when enough patients would have been asked to reach a 'stable' $N^t_{LGBT}/N^t_{Population}$ estimate (*stable* meaning this estimate $N^t_{LGBT}/N^t_{Population}$ is indistinguishable from the true one, and so will not change with increasingly asking more patients; i.e., we do not need to ask every patient, even with the census collection design).

    This LGBT rate can be estimated by following the trends in the two key observed percentages, which are: **(i)** $N^t_{LGBT}/N^t_{askedSOGI}$, which decreased from 14.2% to 7.1%, and **(ii)** $N^t_{LGBT}/N^t_{Population}$, which increased from 1.9% to 3.6%: these lines would meet when all patients would have been asked the SOGI questions, $N^C_{Population} = N^C_{askedSOGI} = N_{\textbf{Entire}Population}$, which happens at a 4.5% value $N^t_{LGBT}/N^t_{Population}$, which is then a population estimate of the LGBT patients in the population of the patients served by the FQHC. If $N_{LGBT}/N_{Population}$ is a somewhat stable rate (in time, reasonable assumption), we can recalculate N^{*t}_{LGBT} and hence the n^t_{STD}/N^{*t}_{LGBT} rates for all months of the study. In other words, those identified as LGBT, when asked SOGI, are a likely over-count of all LGBT patients: we need to correct this bias.

    By the end of the study, 47% of all patients (combined across all FQHCs) were asked the SOGI question, and 7% of them reported LGBT status, or 4% of the entire patient population. Presumably, if we continue to ask until all patients are asked SOGI, the true population LGBT percent will be where the 2 continuous lines below (the 2 LGBT rates $N^t_{LGBT}/N^t_{Population}$ and $N^t_{LGBT}/N^t_{askedSOGI}$ will meet, which is a ~4.5% (a conservative rate): we used for calculations a 5% rate (more conservative in terms of final STD rates estimates: yields *lower* rates). Note that the estimated LGBT rate among the FQHC patient population is likely different from the general population LGBT estimates if the specific characteristics of the patients served by FQHCs differ from general population characteristics.

All 9 sites
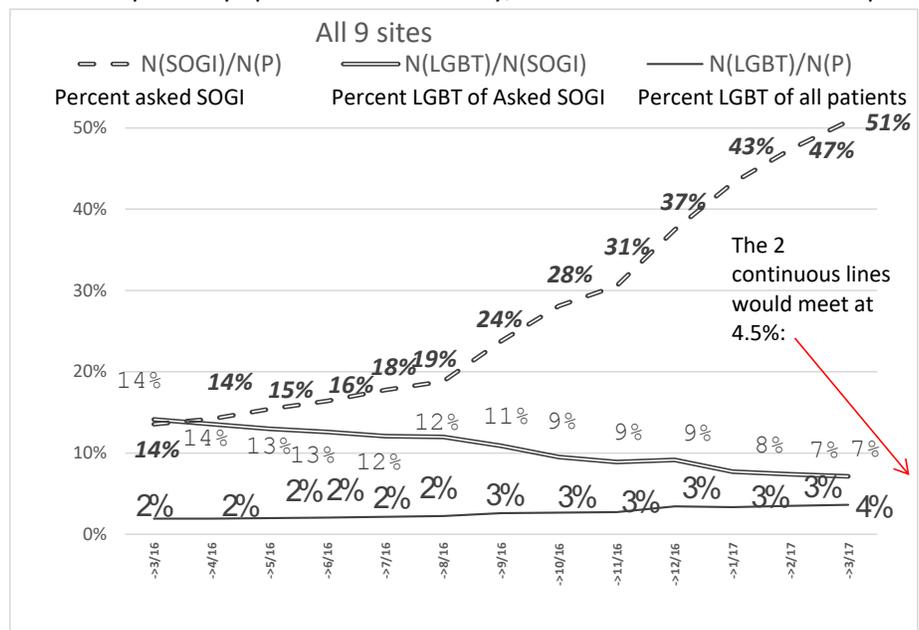
To derive confidence intervals (CIs), raw data by FQHC site was saved (in vertical = repeated across time per site vertically) and analyzed in Stata 16, using *sum* o estimate summary means and standard errors (SEs) for each time point. Estimated total LGBT denominators were generated using the same back-filling procedure used for the total 8 sites. CIs were generated as 1.96*SE less than the mean, for lower CI limit, and 1.96*SE more than the mean, for upper CI limit (worksheet SEs CIs in file LGBT Final Data with Imputations_F_9.26.19.xlsx).

SIMPLER explanation

What the numbers mean: these are the 'monthly' numbers (12-month retrospective totals) processed:

1. N^t_P = total number of patients;
2. N^t_{SOGI} = the number of patients asked SOGI status; and
3. N^t_{LGBT} = the number of patients who identify as LGBT [increase in screening rates over time: how much of it?]
4. N^t_{STD+} = the number of LGBT patients screened for STDs.

While N^t_{SOGI} and N^t_P are clearly most accurate (within small or ignorable entry/clerical errors), N^t_{LGBT} is likely to be the least reliable, hence it will affect the accuracy of the focal/target STD screening rates N^t_{STD+} / N^t_{LGBT}.

1. We are trying to get at to the (true) target numbers of patients screened for STDs who are LGBT: N_{STD+} / N_{LGBT}. We want to know what the percentage screened would be had we asked ALL patients that month, and had ALL of the LGBT patients disclosed their true status: numbers we don't have full access to.

2. The biggest source of error comes in getting to the true LGBT counts N_{LGBT}, because of documented under-disclosure, but also other factors (reaching more/less of them in the practice of care).

3. We looked at systematic changes in each FQHC in N_P and N_{SOGI}, and coupled this with information from program staff to inform the need to adjust the numbers, e.g. for a dramatic increase/decrease in N_P or in N_{SOGI}: this hopefully can tell us if/how much the LGBT count N_{LGBT} is/is not an over or undercount of the true N_{LGBT}.

The primary source of uncertainty comes from the non-random (systematically different) procedure for which providers asked whom (and how) about SOGI status, particularly how this procedure changed in each FHQC across time: this change in particular can confound the conclusion about the trends in STD screening rates. To gauge the potential impact of such changes on SOGI questioning and LGBT status disclosure and STD screening rates, a sensitivity analysis will complement the reporting of the raw STD rates changes. Informed by how each FQHC collected information about SOGI, LGBT status and STD screening numbers, nuanced judgements should be made about how to suggest primarily a lower (than raw counts) bound for the focal STD rates.

Specifically, this bound will be suggested for specific periods by investigating how N^t_P, N^t_{SOGI}, and N^t_{LGBT} changed in each FQHC. The graphs of such changes per FQHC indicate that in all cases the percent of patients asked SOGI questions increased consistently over time, while the percent of LGBT patients (of those asked the SOGI question) decreased steadily over time (or hovered around the same percentage in 3 FQHCs).

Two other considerations can be used: percentages of total LGBT patients (of those asked SOGI) differ by FQHC, in order: 35%; 18%, 31%; 45%; 1%; 0%; 1%; 1%; and 1%; moreover, the degree of change in N^t_{LGBT}/N^t_{SOGI} per site (coupled with the reason for the change) could be considered. For example, the largest N^t_{LGBT}/N^t_{SOGI} change was 38%->4% in FQHC 2, which reports eventually on 18% of LGBT patients (in terms of screening rates). This suggests that the peculiarly large %LGBT numbers (in the first 9 months) should be weighed down (compared to other sites) when gauging the bounds around the raw STD rates; the rate of change was considered when assigning N^t_{LGBT} confidence weights (from .2 to 1.0) to each FQHC.

Also of note, one FQHC reported more LGBT patients consistently over time, 50%->39%,.Due to this drop, a confidence weight of .8 was given to generate the lower bound. The FQHCs with stable N^t_{LGBT}/N^t_{SOGI} can be given 1.0 confidence weights. These weights can be left to operate for the first 9 months, with decreasing impact (all approaching each 1) towards the last month of data.

FQHC insights indicate that, in general, champion providers started collecting SOGI/LGBT data; in time, more providers asked the questions, explaining the steady increase in percent screened for SOGI, which for all sites goes from 14% to 51% (again, this is N^t_{SOGI}/N^t_P). This makes the N^t_{LGBT}/N^t_{SOGI} more reliable in the last (3) months of the study, when more patients are asked the question (note that the last such numbers are still not perfect estimates, because of non-random selection of the 51% patients who are asked the SOGI questions). In other words, the first months' count of LGBT patients (and hence the N^t_{LGBT}/N^t_{SOGI}) is likely to be an over count, more so than for the 2nd time frame (last 3 months, based on the trends in N^t_{SOGI}/N^t_P). Coupled with the pull upwards from the tendency towards non-disclosure, this makes the lower bound more prominent on the left side (first 9 months), and less so on the right side, while the under-disclosure will likely show its predominant impact in the upper bound being more prominent on the right side (last 6 months). These likely bounds are shown in addition to the observed/raw STD screening rates in the final (all FQHCs) graphs.

For example, the suggested lower bound for syphilis would be:
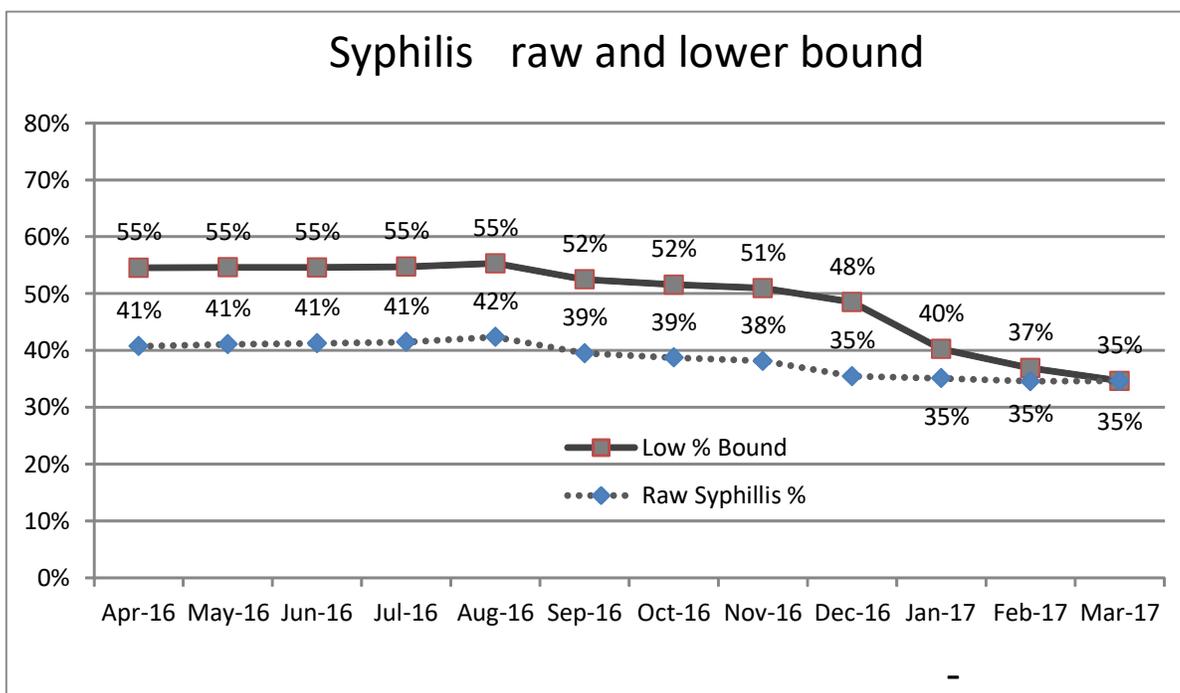
MORE detailed explanation

The procedure aims to estimate:
1. The trend in the percentage of patients aged 13+ in the patient populations of 9 FQHC systems who were asked SOGI screening questions
2. The screening rates for sexual health screening and specific STDs (syphilis, gonorrhea/chlamydia, HIV) for LGBT patients 13+ if all patients at these 9 FQHCs had documented SOGI screening

Data was collected in April 2017 from 430 providers (of a total of 588) from 78 sites belonging to 9 FQHC systems, up from 6 providers from 6 sites belonging to 6 FQHC systems in May 2016 (and 371 providers from 62 sites belonging to 9 FQHC systems in December 2016). Hence the sampling procedure is essential in determining whether the percentage of LGBT-identified people (among those asked SOGI) appears to be an over/underestimate, and why. If the sample selection of patients asked SOGI questions was truly random, and hence is not likely to systematically miss (or over-sample) LGBT patients, then estimates from a simple random sample should suffice to recover the true LGBT sub-population umbers (from among the patient population of the FQHCs), and hence the true testing rates, i.e. percent tested for STDs among LGBT patients.

However, the number of LGBT patients served by FQHCs cannot be known with 100% precision because it is always likely that a percentage of LGBT patients will choose not to disclose their status. Non-disclosure occurs primarily when 1) patients do not perceive the relevance of SOGI to care, 2) health care providers do not use inclusive communication skills and language, and 3) patients fear poor treatment or reaction to disclosure [1]. People are less likely to disclose LGBT status to a primary care provider than to family members or friends [2].

Adding to this uncertainty is that the percentage of LGBT patients is likely to change from month to month, and to also change in each site within a FQHC system. Therefore, each monthly count can over/under sample from among the true LGBT patient population served by each FQHC. For example, because not all providers at the 9 participating FQHCs asked their patients SOGI questions, and those who did were not themselves a random selection of all providers at each site (or within a FQHC system), the rates of patients who identify as LGBT will differ from within the same system (and overall). This could occur if a provider began to purposely reach out to LGBT patients and routinely ask about SOGI. This provider's FQHC would likely show an increase in the reported rate of patients who identify as LGBT, which, in terms of trying to estimate the true rate of LGBT patients in the general patient population from that site (and hence from that FQHC), will represent an artificial (artifactual) increase.

Therefore the 12-month lookback screening rates can appear to change because, for example, as more providers from a FQHC site begin to ask their patients SOGI questions, as the pool of patients who are asked SOGI status (the sampling pool) increases, in doing so more/less LGBT people are potentially invited to answer the SOGI question, depending on programmatic differences between sites, and changes in such programmatic goals (like outreach efforts). Moreover, arguably both the number of patients asked SOGI and the percent of them who are LBGT have become more precise over the course of the project, for all current and past months of data collection, approaching by the last month of data entry the entire patient population in each site.

The data collection design in this project was not technically a *sampling* strategy, but follows a *census* procedure instead, i.e. canvassing the entire population so that in the end, all patients will have been asked the SOGI question, and the true (population) LGBT rate (and thus the STD screening rates among LGBT patients) can be obtained. Note that the screening rates obtained when asking every patient is not a statistical estimate (or parameter), but the actual population value (or a statistic, hence p values and confidence intervals are moot).

The project collected 12-month retrospective numbers for three key measures: **1. N^t_P** = total number of patients; **2. N^t_{SOGI}** = the number of patients asked SOGI status; and **3. N^t_{LGBT}** = the number of patients who identify as LGBT; and **4. N^t_{STD+}** = the number of LGBT patients screened for STDs. While **N^t_{SOGI}** and **N^t_P** are clearly most accurate (within small or ignorable entry/clerical errors), **N^t_{LGBT}** is likely to be least reliable, hence it will affect the accuracy of the focal/target STD screening rates **N^t_{STD+} / N^t_{LGBT}**.

Based on these considerations, any correction method when attempting to recover the true rates and their trends requires us to first investigate the actual month-to-month change in the two indirect indicators of the accuracy of the LGBT patient population size: the changes in the number of patients asked SOGI questions, N^t_{SOGI}, and the total number of patients (N_P).

If one asks a dramatically different (increasing number) of patients from a set number of facilities their SOGI status (N_{SOGI}), and then these patients are screened for a number of STDs (syphilis, CT/GN, and HIV), the estimates of the percentage of LGBT-identified patients (N^t_{LGBT}/N^t_P) screened at each time point partly reflect the impact of:

1. Potential systematic over/under sampling of at-risk-of-STDs groups, (e.g. LGBT people) as a proportion of total patient population N_P, as a result of targeted outreach by clinical staff. For example: a provider champion who initiated the project is known to be an LGBT-friendly provider, which could result in systematic oversampling of LGBT people in that provider's panel as compared to LGBT people in the general population of patients seen at the health center

2. Potential systematic over/under sampling of the LGBT patient population due to self-selection, e.g. LGBT patients seeking/avoiding care themselves because of perceived exposure or symptoms [3], but also due to barriers, like fears or embarrassment).

For example, one of the sites shows these monthly *changes* in N^t_P and N^t_{SOGI} in one FQHC below (plus all FQHCs to its right). *There is a sharp increase in recorded numbers for Nov. 2016, of 182%, which did not necessarily translate into a similar concurrent increase in the rate of SOGI-asking, yet the SOGI-asking rate increased steadily (29%, +44%, +36%, +11% and +25%), to reach at the end a rate* N^T_{SOGI} / N^T_P = 57% (T is maximum t time point)

The last step is how to incorporate these potentially unreliabile sources into the final estimates of the STD screening rates N^t_{STD+}/ N^t_{LGBT}, so that they better reflect the 'true' LGBT patient count each month.

The strategy follows a simple procedure: the extent of uncertainty of the estimates will be represented and reported as a band/range of potential values, accompanying the STD raw screening rates in the data, i.e. an 'uncertainty band.'

The 'true' N(LGBT) lies likely between the 2 continuous lines closer to the double line in Fig. 2. Moreover, because of under-disclosure, the line could lie higher than the double line. BY HOW MUCH on each side is the final question to resolve: this will get us a band around the STD rates, due to uncertainty in N(LGBT), or the denominator used in estimating those rates.

Figures 1
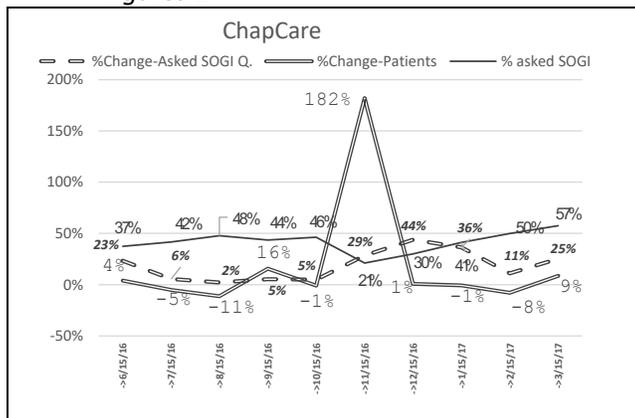
Figure 2
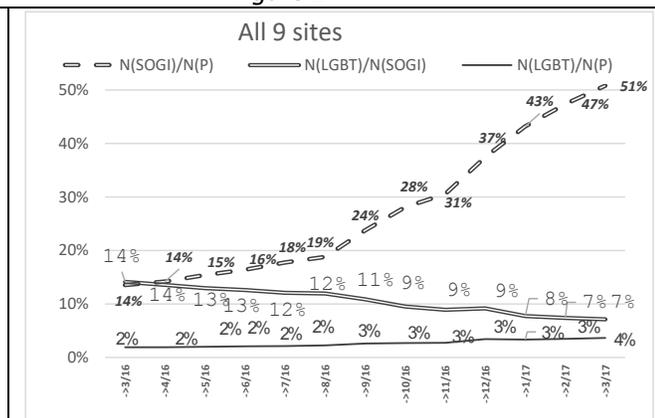
Note that the estimated STD screening rates among the FQHC patient populations are likely to differ from general population estimates if the socio-economics, race/ethnicity, or other characteristics of the patients served by FQHCs differ from the general population or the population of patients from their catchment areas (potential patient pool).

1. Brooks H, Llewellyn CD, Nadarzynski T, et al. Sexual orientation disclosure in health care: a systematic review. Br J Gen Pract. 2018;68(668):e187-e196.
2. Durso LE, Meyer IH. Patterns and Predictors of Disclosure of Sexual Orientation to Healthcare Providers among Lesbians, Gay Men, and Bisexuals. Sex Res Social Policy. 2013;10(1):35-42.
3. Hall HI, Song R, Rhodes P, et al. Estimation of HIV incidence in the United States. JAMA. 2008;300(5):520-529.

Supplemental Appendix 4. Transforming Primary Care for LGBT People
"Change Package"

This "change package" from the *Transforming Primary Care for LGBT People* initiative was produced by reviewing the one-year intervention change ideas from all health center teams and compiling those considered most valuable for making improvements in LGBT care. The package is structured around 1) identifying LGBT patients, and 2) engaging LGBT patients in culturally affirming care. These two steps are critical precursors to managing preventive care and impacting health outcomes for LGBT people.
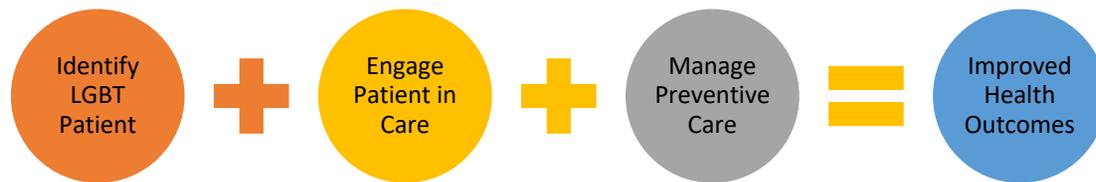
Change concepts and ideas are organized into three domains: infrastructure; population health management; and patient visits. Change ideas are supported with implementation tips, tools, and resources.

INFRASTRUCTURE

CHANGE CONCEPT	CHANGE IDEA	IMPLEMENTATION TIPS	TOOLS AND RESOURCES
Make LGBT Health an Organizational Priority	Leadership communicates LGBT health as a priority	Conduct an initial clinic assessment on LGBT health to identify practice change and training needs, and communicate results to health center leaders. Include LGBT health goals into the health center's organizational strategic plan, mission, or vision. If you have someone LGBT who is interested and excited, empower them to effect change by including them on the improvement team and/or designating them an LGBT health champion. Identify an executive champion who can make high-level decisions related to LGBT health goals. Having the executive champion in attendance at early improvement team meetings is a morale boost. Use existing channels, such as all-staff meetings or advisory committees, or develop new channels, for leadership to communicate organizational priorities around LGBT health to all staff and for staff to inform leadership about work to improve LGBT health. Leadership and the improvement team can work together to pursue designation as a Leader in LGBT Healthcare Equality. Consider hiring an outside consultant to support your assessment; fresh eyes help. Promote services that may appeal to LGBT patients on the health center website.	The National LGBT Health Education Center, a program of The Fenway Institute Ten Things: Creating Inclusive Health Care Environments for LGBT People Human Rights Campaign Healthcare Equality Index The Joint Commission: Advancing Effective Communication, Cultural Competence, and Patient- and Family-Centered Care for LGBT

	Form an LGBT health improvement team	Team or committee meets weekly or biweekly to plan and execute practice improvements to achieve LGBT health goals. The improvement team should include a clinic site manager, health educator, provider, behavioral health representative. The improvement team should meet once a month with CEO, CMO and CFO to communicate changes, gain approval and troubleshoot workflows. Designate one person of the group as the LGBT health champion.	
	Designate an LGBT health champion	Identify an LGBT health champion who participates In local coalitions actively, such as HIV community mobilization groups, college or university LGBT group meetings, etc. The LGBT health champion will be someone influential in the organization, and if there are multiple clinical sites, consider one champion per site.	

| Identify LGBT Patients | Develop workflows to collect sexual orientation and gender identity (SOGI) data | Standardize the SOGI data collection process and consider carefully who asks the SOGI questions or responds to patient inquiries about the questions, where the questions are asked, how the questions are asked, and how frequently the questions are asked.

Workflows may include these data collection practices:
• Patients provide written responses to SOGI data questions on the paper annual Uniform Data System (UDS) verification form.
• Front desk staff collect SOGI data by collecting patient written responses to SOGI questions at check-in and enter as demographic data.
• Medical assistants collect SOGI data by verbally asking patients SOGI questions while rooming and enter into the clinical record.

Run plan-do-study-act (PDSA) cycles to assess workflow, language and include definition of terms for the community. These small tests of change will help reveal solutions or barriers you may not have considered.

Involve staff from impacted departments, such as health information technology and administrative areas, in workflow development from the beginning.

Involve patients in workflow development. | SOGI webinars, publications, and other online training from the National LGBT Health Education Center
- See especially: Ready, Set, Go! Guidelines and Tips for Collecting Patient Data on Sexual Orientation and Gender Identity

PDSA Learning Module

Mapping Workflow Diagram: Institute for Healthcare Improvement. Planned Care Visit Workflow (can be adapted for processes related to LGBT Care) |

	Configure the electronic health record (EHR) to collect SOGI	Connect with other organizations using the same EHR to share best practices around SOGI data collection. Engage health center health information technology (HIT) staff to add SOGI questions as structural fields. Determine how often SOGI information will be collected and how the EHR will generate an alert reminding staff to collect SOGI. Tell your EHR vendor what you need and let them know they need to do it rather than asking what the EHR vendor currently provides.	SOGI webinars, publications, and other online training from the National LGBT Health Education Center Using Health IT in Practice Redesign: Impact of Health IT on Workflow Planning and implementing sexual orientation and gender identity data collection in electronic health records. Electronic health records and transgender patients--practical recommendations for the collection of gender identity data.

	Train staff to collect SOGI and respond to patient questions about SOGI	Train all staff per site, creating a unique SOGI training per site based on the needs of the staff.
		
		Provide SOGI training at different levels and in a variety of ways (provider meetings, staff meetings, overview vs. real-time).
		
		Build scenarios into training along with definition of terminology and language to use with staff.
		
		Ensure a LGBT health champion is available for staff to bring questions and challenges around SOGI data collection.
		
		Provide staff with language and/or scripts to use when patients ask why their SOGI information is being collected.
			SOGI webinars, publications, and other online training from the National LGBT Health Education Center
			- See especially:
			    o Demonstration videos
			    o Information pamphlets for patients about SOGI

Establish a welcoming, affirmative environment for LGBT and all patients	Ensure all-staff competency on LGBT health basics including terminology and health disparities	Train all staff on LGBT health competency, LGBT terminology, and health disparities. Include LGBT health basics in onboarding training and/or compliance trainings. Provide on-going trainings (yearly at minimum) but focus on staff at different levels (i.e. provider meetings, site meetings, "all staff day", etc.). Find a community support if you are not able to offer trainings in-house. There are many LGBT organizations, and healthcare entities that have offerings around this. Create an email and online surveys to help staff have easier access to resources and determine additional resources staff might need/request. Do not rely on video or Healthstream. Use live people and try to involve patients.	The National LGBT Health Education Center, a program of The Fenway Institute Human Rights Commission training series hosted on The CAL National Network of Prevention Training Centers
	Form support groups for patients and advisory boards of patients	Establish a Transgender Advisory Committee led by transgender employees and allies. Providers or other staff can recruit select LGBT patients to participate in advisory boards. With leadership support, and valuing this community voice, forming an advisory board comes more easily. Involve LGBT people of color who represent the makeup of your community.	

	Use signage and language that is inclusive of LGBT patients	Display educational brochures and posters in waiting or exam rooms about LGBT health. Have gender-neutral restrooms in the waiting area and clinic area. Display of equality flag and rainbow flags. Use gender neutral pronouns on forms, such as asking about "parent/guardian" rather than "mother/father" when possible. Ask *all* patients what pronouns they use and what name they should be called if it differs from their legal or "insurance" name.	"Do Ask, Do Tell" brochures and posters from the National LGBT Health Education Center "Health Starts Here" poster from LGBT HealthLink "Why we need gender-neutral bathrooms" TED Talk Focus on Forms and Policy: Creating an Inclusive Environment for LGBT Patients
	Hire LGBT staff	Include LGBT-inclusive non-discrimination policies on job listings. Actively recruit LGBT people by emphasizing LGBT people as a group encouraged to apply in job postings and by recruiting at events and on websites that target LGBT people. If your organization becomes known as one that is welcoming to the community, it will then open up to welcoming to work for as well. Be intentional in inviting employees who identify as LGBT to be part of LGBT health improvement work.	Recruiting Training and Retaining LGBTQ-Proficient Clinical Providers: A Workforce Development Toolkit

	Establish policies that explicitly include LGBT people as those who should be free from discrimination	Establish non-discrimination policies for patients and staff. Review current manual for employees and clients, make necessary changes, gain approval from leadership and submit to Board for approval. Communicate policy changes to all staff via email and to clients by providing a copy of Patient Bill of rights during registration for new patients and posted Bill of Rights poster in waiting areas/website. Negotiate health insurance policies for staff that cover same-sex spouses or partners.	Sample Patient Non-Discrimination Policies from the Human Rights Commission
Establish LGBT Health as Part of the Health Center QI Plan	Gain buy-in from and regularly update the board	Identify a board champion. Include a board member on any advisory groups that you form. Provide LGBT health and SOGI updates to board QI Committee on a quarterly basis.	
	Incorporate LGBT health metrics into quality plan	Track SOGI data collection rates (a UDS measure) to build support for SOGI collection. Develop an action plan with clinical leadership to continue working on LGBT health metrics and to ensure sustainability of improvement work.	

	Ensure the quality of your data	Validate SOGI data captured in your systems. Expand data staff by leveraging relationships with local colleges and universities to include interns on the data team.	Collecting Data on Sexual Orientation and Gender Identity: Data Integrity and Quality Improvement webinar from the National LGBT Health Education Center
Build Partnerships	Engage with primary care associations (PCAs) and health center controlled networks (HCCNs) for support with data, policy, and clinical improvement	Advocate for the health center's data and HIT support needs to better identify and engage LGBT patients and population health disparities. Participate in the planning of a PCA-sponsored LGBT conference to offer education and training tailored to health centers.	
	Form relationships with labs to provide appropriate risk-based screenings and tests	Communicate with your lab carrier for specific screenings and price, for example pharyngeal screenings and anal paps. Engage with health department if necessary to be liaison with labs.	
	Engage with community-based organizations and academic institutions for clinical training	Contact the state or local Department of Public Health to bring training to providers on specific topics such as hormone replacement therapy or pre-exposure prophylaxis (PrEP). Find out who your local LGBT organizations are and try to find out the political 'lay of the land' before you dive in.	

POPULATION HEALTH MANAGEMENT

CHANGE CONCEPT	CHANGE IDEA	IMPLEMENTATION TIPS	TOOLS AND RESOURCES
Implement workflows and supports for screening, prevention, and care in areas where LGBT people see greater risk or health disparities	Implement a pre-exposure prophylaxis (PrEP) workflow to support prevention of HIV in populations most at-risk	Develop a PrEP policy and protocol. Create a resource binder including PrEP workflows, resources, payment algorithms, and other items that support implementation of PrEP in the health center. Use existing resources to develop a workflow for PrEP, such as a customized PrEP workflow from Denver Prevention Training Center.	Denver Prevention Training Center HIV Prevention Capacity Building Assistance program
	Implement a policy and process to screen every patient for sexual history and sexual risk	Include a basic, 3 question sexual health history as part of intake. Train providers and care team staff on routine sexual histories and sexual risk assessments. Use tablet-based technology to capture sexual history and sexual risk.	Sexual Health and Your Patients: A Provider's Guide from the National Coalition for Sexual Health Acceptability and willingness among men who have sex with men (MSM) to use a tablet-based HIV risk assessment in a clinical setting

	Implement a policy and process to screen every patient for HIV and STIs based on sexual risk	Develop workflows that allow care teams to use patient sexual history and sexual risk information to screen for STIs and HIV.	CDC 2015 Sexually Transmitted Diseases Treatment Guidelines for special populations including men who have sex with men, women who have sex with women, and transgender women Screening and Testing for Sexually Transmitted Infections in Gay, Bisexual and Other Men Who Have Sex with Men (CME Module) MSM Sexual Health Standards of Care from the National Coalition of STD Directors
Establish Strategies for Clinical Training	Provider training on hormone replacement therapy (HRT), PrEP, STI and HIV screening and treatment builds confidence in caring for patients	Use established guidelines to guide clinical care. Bring clinical experts from local academic medical centers into the health center to provide grand rounds. Invite the Department of Public Health to provide training on PrEP for all providers. Utilize free training and technical assistance resources from clinical experts. Access free training and technical assistance from AIDS Education and Training Centers (AETCs), Prevention Training Centers (PTCs), and other clinical trainers that are funded to provide these services.	UCSF Guidelines for the Primary and Gender-Affirming Care of Transgender and Gender Nonbinary People CDC 2015 Sexually Transmitted Infection Treatment Guidelines CDC HIV/AIDS Guidelines CDC PrEP Resources for Providers Denver Prevention Training Center HIV Prevention Capacity Building Assistance program The National Network of STD Clinical Prevention Training Centers (NNPTC) The AIDS Education and Training Center (AETC) Program Providing Optimal Care for Your MSM Patients brochure from the National Prevention Information Network

			[Prioritizing the Health of MSM: Extragenital STD Screening Call-t0-Action from the National Alliance of State and Territorial AIDS Directors](#)
Use Data to Inform Strategies to Improve LGBT Health Care	Locate and use local epidemiological data to identify and educate providers on local STI/HIV rates	Use visual maps to represent the local epidemic. Connect to the state or local department of public health to collect local, up-to-date data on STI/HIV rates	[AIDSVu](#)
	Use data to engage local community partners to support gaps in care	Join a local community mobilization group in which agencies that serve LGBT populations are present and task forces work on different gaps.	
	Use data from the EHR to improve health center population health	Create reports that produce clinical data for patients in each SOGI category and track over time to target disparities and needs	

PATIENT VISITS

CHANGE CONCEPT	CHANGE IDEA	IMPLEMENTATION TIPS	TOOLS AND RESOURCES
Optimize Care at Intake (e.g., check-in, waiting, rooming)	Educate patients on SOGI	Include a small paragraph that explains why the health center collects this information as well as a list of terms on the back portion side of the form.	New SOGI Questions: Information for Patients brochure from National LGBT Health Education Center
	Collect and document SOGI, preferred name, and pronoun accurately	Develop SOGI fields that populate throughout the EHR. EHR banner color-coded to indicate gender identity. Update the UDS Annual Verification Form to collect SOGI information. Disseminate pronoun buttons among staff and clients to reinforce concepts learned during trainings regarding respectful communication. Create a form where all these rubrics are collected and entered into the EHR as well as scanned to patient documents.	
	Ensure SOGI terms and other forms are appropriately translated into key primary languages	Test SOGI questions with patients early on to ensure clarity of translations.	Preguntas Sobre Orientaction Sexual E Identidad de Genero from the National LGBT Health Education Center

	Educate patients on PrEP	Create tri-fold wallet-sized PrEP handouts that are easy to disseminate at outreach events. Deploy a PrEP navigator who can walk the patient through the process of obtaining the PrEP.	
Optimize Care in the Exam Room	Use motivational interviewing techniques to engage patients in discussions about their health	Partner with or contract with organizations that can provide training for all providers, health educators and site managers on motivational interviewing.	Possibilities for Change (P4C)
	Provide patients with information about their care	Provide patients who are transgender and have questions about what hormone replacement therapy entails with clear, concise, affirming information. Provide patients with information about sexual health care and preventive services	"What to Expect" hormone therapy brochure for patients from Fenway Health Whitman Walker's "Guide to Our Services for Transgender, Genderqueer and Gender-Expansive Clients" For Men Only: Your Sexual Health brochure from National Alliance of State and Territorial AIDS Directors

| Build Relationships with Community Partners | Attend community-based organizations and community events to promote the care you provide | Partner with local LGBT organizations that can provide education, advocacy, and other supports to health centers and patients.

Seek out equality, pride, and LGBT specific events.

Ensure the marketing items have a variety of people and family types shown.

Celebrate pride month and other health related LGBT specific days and observances on social media.

Develop an LGBT Outreach Program Coordinator position who attends local events promoting equality; reaches out to the community; attends community events promoting the services the health center provides; and collaborates with different agencies that serve the LGBT population to promote health center services. | Example Pride month Facebook posts from Family First Health |

	Identify resources in the community that can support patients with complex care needs	Develop resource guide for your particular community and patients. Conduct a community environment scan done to identify services in the area as well as cost. Create referral agreements with providers who are doing hormone replacement (if your health center is not already) and gender confirming surgeries and include partnerships and resources in a resource guide.	LGBT Community Centers

Supplemental Appendix 5. Sociodemographic Characteristics of FQHC Patients (2016)

	Unique Patients	Special Populations Served[a]	Race[b]	%	Hispanic/Latino[d] %	Patients 18+ Years %
FQHC1	8,712	Homeless Veterans	Non-Hispanic White Black/African American[c]	33.2 60.8	6.2	96.6
FQHC2	9,363	School Based Homeless Public Housing Veterans Agricultural Workers	Non-Hispanic White	6.3	91.5	83.8
FQHC3	15,145	Homeless Agricultural Workers Veterans	Non-Hispanic White Black/African American[c] Asian[c]	15.8 16.6 5.1	61.8	76.7
FQHC4	22,079	Public Housing School Based Veterans Agricultural Workers Homeless	Non-Hispanic White Black/African American[c]	63.0 20.9	33.4	57.1
FQHC5	42,354	Agricultural Workers School Based Homeless Veterans Public Housing	Non-Hispanic White Black/African American[c]	22.9 23.5	51.6	68.0
FQHC6	48,445	Agricultural Workers Veterans School Based Public Housing	Non-Hispanic White Black/African American[c]	59.3 28.2	11.6	72.1
FQHC7	50,502	Homeless School Based Veterans	Non-Hispanic White Black/African American[c] Asian[c]	29.3 12.5 6.2	50.2	68.4
FQHC8	61,319	Agricultural Workers Homeless Veterans	Non-Hispanic White Black/African American[c]	47.5 9.0	44.7	68.1
FQHC9	89,278	School Based Homeless	Non-Hispanic White Black/African American[d]	52.2 26.2	31.7	60.9

		Public Housing Veterans Agricultural Workers	Asian	5.5		
FQHC10	94,190	Homeless Veterans School Based	Non-Hispanic White Native Hawaiian/Other Pacific Islander	23.3 7.1	64.9	64.1
Total	441,387	N/A	N/A		N/A	N/A
Mean	44,139	N/A	N/A		44.8	71.6

FQHC = Federally qualified health center

Data are from the US Bureau of Primary Health Care, Health Resources and Services Administration Uniform Data System, 2016.

[a] Special populations are listed in descending percentage order.

[b] Race is reported only for those representing ≥5% of the total percentage of patients. Percentage is of patients with reported data only.

[c] Includes Hispanic/Latino and Non-Hispanic/Latino.

[d] Percentage is of patients with reported data only.

Supplemental Appendix 6. Core Clinical Outcome Data

Patients with SOGI documented among FQHCs reporting electronic health data (N=9)

Reporting Period	Patients with SOGI documented No.	Total Patients No.	Patients with SOGI documented %
March 2015-2016	23,835	177,130	13.5
April 2015-2016	25,933	182,811	14.2
May 2015-2016	28,308	183,539	15.4
June 2015-2016	30,272	184,670	16.4
July 2015-2016	33,143	186,732	17.7
August 2015-2016	35,225	187,300	18.8
September 2015-2016	45,084	189,706	23.8
October 2015-2016	53,874	191,643	28.1
November 2015-2016	61,250	200,385	30.6
December 2015-2016	75,530	201,610	37.5
January 2016-2017	87,839	203,231	43.2
February 2016-2017	96,778	204,269	47.4
March 2016-2017	104,583	205,738	50.8

SOGI = sexual orientation and gender identity
FQHC = federally qualified health center

Appendix 6. Core Clinical Outcome Data, continued

Patients with SOGI documented among FQHCs able to report number of LGBT patients (N=8)

Reporting Period	Patients with SOGI documented No.	Total Patients No.	Patients with SOGI documented %
March 2015-2016	21,202	139,924	15.2
April 2015-2016	23,445	145,232	16.1
May 2015-2016	25,799	145,747	17.7
June 2015-2016	27,616	146,746	18.8
July 2015-2016	29,720	148,753	20.0
August 2015-2016	31,083	149,400	20.8
September 2015-2016	40,743	151,476	26.9
October 2015-2016	49,333	153,255	32.2
November 2015-2016	56,619	161,921	35.0
December 2015-2016	70,974	163,095	43.5
January 2016-2017	82,477	164,716	50.1
February 2016-2017	90,918	165,121	55.1
March 2016-2017	97,886	166,453	58.8

SOGI = sexual orientation and gender identity
FQHC = federally qualified health center
LGBT=lesbian, gay, bisexual, and transgender

Appendix 6. Core Clinical Outcome Data (Syphilis Screening)

Syphilis screening in FQHCs able to report number of LGBT patients (N=8)

Reporting Period	LGBT Patients Screened No.	Observed		Estimated	
		Total LGBT Patients No.	LGBT Patients Screened %	Total LGBT Patients No.	LGBT Patients Screened % (95% CI)
March 2015-2016	1,387	3,395	40.9	6,229	22.3 (4.9-40.0)
April 2015-2016	1,433	3,517	40.7	6,324	22.7 (7.4-36.9)
May 2015-2016	1,508	3670	41.1	6,420	23.5 (8.6-37.3)
June 2015-2016	1,573	3812	41.3	6,518	24.1 (11.2-36.8)
July 2015-2016	1,661	4003	41.5	6,618	25.1 (12.3-37.7)
August 2015-2016	1,786	4214	42.4	6,718	26.6 (12.5-41.0)
September 2015-2016	1,937	4904	39.5	6,821	28.4 (14.1-43.0)
October 2015-2016	1,981	5115	38.7	6,924	28.6 (14.3-42.7)
November 2015-2016	2,078	5447	38.1	7,030	29.6 (15.0-44.4)
December 2015-2016	2,456	6922	35.5	7,137	34.4 (20.9-47.7)
January 2016-2017	2,379	6776	35.1	7,246	32.8 (18.8-46.2)
February 2016-2017	2,465	7131	34.6	7,356	33.5 (19.0-47.1)
March 2016-2017	2,587	7,468	34.6	7,468	34.6 (19.4-48.6)

FQHC = federally qualified health center
LGBT=lesbian, gay, bisexual, and transgender

Appendix 6. Core Clinical Outcome Data (Chlamydia and Gonorrhea Screening)

Chlamydia and gonorrhea screening in FQHCs able to report number of LGBT patients (N=8)

Reporting Period	LGBT Patients Screened No.	Observed		Estimated	
		Total LGBT Patients No.	LGBT Patients Screened %	Total LGBT Patients No.	LGBT Patients Screened % (95% CI)
March 2015-2016	1,577	3,395	46.5	6,229	25.3 (7.6-43.1)
April 2015-2016	1,663	3,517	47.3	6,324	26.3 (12.1-40.5)
May 2015-2016	1,759	3670	47.9	6,420	27.4 (13.6-41.2)
June 2015-2016	1,843	3812	48.3	6,518	28.3 (15.6-40.9)
July 2015-2016	1,954	4003	48.8	6,618	29.5 (16.9-42.2)
August 2015-2016	2,108	4214	50.0	6,718	31.4 (17.0-45.8)
September 2015-2016	2,310	4904	47.1	6,821	33.9 (19.3-48.4)
October 2015-2016	2,394	5115	46.8	6,924	34.6 (20.5-48.7)
November 2015-2016	2,561	5447	47.0	7,030	36.4 (21.6-51.3)
December 2015-2016	2,776	6922	40.1	7,137	38.9 (25.6-52.2)
January 2016-2017	3,030	6776	44.7	7,246	41.8 (28.4-55.2)
February 2016-2017	3,141	7131	44.0	7,356	42.7 (29.1-56.3)
March 2016-2017	3,296	7,468	44.1	7,468	44.1 (30.2-58.1)

FQHC = federally qualified health center
LGBT=lesbian, gay, bisexual, and transgender

Appendix 6. Core Clinical Outcome Data (HIV screening)

HIV screening in FQHCs able to report number of HIV-unknown LGBT patients (N=8)

Reporting Period	HIV-unknown LGBT Patients Screened No.	Observed		Estimated	
		Total HIV-unknown LGBT Patients	HIV-unknown LGBT Patients Screened %	Total HIV-unknown LGBT Patients	HIV-unknown LGBT Patients Screened % (95% CI)
March 2015-2016	806	2435	33.1	5442	14.8 (3.2-26.5)
April 2015-2016	854	2529	33.8	5497	15.5 (5.8-25.2)
May 2015-2016	897	2655	33.8	5553	16.2 (6.6-25.7)
June 2015-2016	956	2788	34.3	5609	17.0 (6.9-27.2)
July 2015-2016	995	2939	33.9	5666	17.6 (8.2-26.9)
August 2015-2016	1069	3151	33.9	5723	18.7 (9.7-27.7)
September 2015-2016	1198	3546	33.8	5781	20.7 (11.5-30.0)
October 2015-2016	1347	3960	34.0	5839	23.1 (14.8-31.3)
November 2015-2016	1441	4257	33.9	5898	24.4 (16.0-32.9)
December 2015-2016	1683	5628	29.9	5958	28.2 (23.0-33.5)
January 2016-2017	1664	5442	30.6	6018	27.7 (23.5-31.8)
February 2016-2017	1758	5891	29.8	6079	28.9 (24.2-33.6)
March 2016-2017	1873	6140	30.5	6140	30.5 (26.7-34.3)

FQHC = federally qualified health center
LGBT=lesbian, gay, bisexual, and transgender