


New Jersey Pharmacists' Perceptions on Performing COVID-19 Testing in Community Pharmacy Practice Sites

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Abstract

Background: Point of care testing (POCT) for Coronavirus Disease 2019 (COVID-19) is a major source of its control. On May 13, 2020, NJ pharmacists were authorized to order and perform COVID-19 testing, expanding their role in the response to the COVID-19 pandemic.

Objective: The purpose of this study was to evaluate NJ pharmacists' perceptions on the safety and potential consequences of performing COVID-19 testing within their community pharmacy practice sites. Methods: An electronic survey was distributed to NJ-registered pharmacists approximately 3 months after the administrative order was issued.

Results: The survey was completed by 523 recipients (3.39% response rate) and responses from 311 NJ pharmacists practicing in community pharmacy were analyzed. The majority of respondents (83.8%) were not providing testing, while 16.2% were testing at the time of survey distribution. Most testing pharmacists were staff pharmacists with one to five years of experience, working in a pharmacy chain approximately 30–40 hours per week. Those not testing identified lack of a pharmacy drive-through, insufficient staff, and potential workflow disruption as reasons for not testing. Increased workload and fear of spreading the virus to others were concerns noted by both testers and non-testers.

Conclusion: Overall, NJ pharmacists reported mixed perceptions regarding performing COVID-19 testing. Challenges and barriers to pharmacist COVID-19 testing, including inadequate staffing and space, and concerns about reimbursement and disruption to workflow were identified. Findings may serve as a guide to design and implement strategies to overcome barriers.

Keywords

COVID-19, point-of-care testing, community pharmacists

Background

As of late 2019, the United States has been affected by the global severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) or Coronavirus Disease 2019 (COVID-19) pandemic, the third novel coronavirus to emerge this century.¹ It has impacted every state in the nation, with New York, New Jersey (NJ), and Connecticut experiencing a large percentage of the initial cases and deaths. As of June 14, 2021, NJ reported 890 485 reverse transcriptase-polymerase chain reaction (RT-PCR)-confirmed cases and 23 631 confirmed COVID-19-related deaths.² While other states have attempted various ways to control the spread of the disease, including social distancing and shutdown of non-essential businesses, the increase in access to point of care testing (POCT) for COVID-19 has become a major source of control.³

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The Food and Drug Administration (FDA) worked to increase COVID-19 testing availability by issuing Emergency Use Authorizations (EUAs) to expand the number of tests available.⁴ Numerous COVID-19 tests have been approved under the EUA, including both diagnostic and antibody tests. Diagnostic tests show whether a patient has an active COVID-19 infection and are performed as either molecular (RT-PCR) or antigen tests.^{5,6} Most of these tests involve throat or nasal swabs, where a healthcare provider or the patient uses a cotton swab to collect mucus from the nasal or oral cavity. There are also saliva tests available for patients to privately collect and submit samples for COVID-19 diagnosis.^{5,6}

On April 8, 2020, the USA Department of Health and Human Services issued a guidance under the Public Readiness and Emergency Preparedness Act (PREP Act) that authorized licensed pharmacists to order and administer FDA-approved COVID-19 tests.⁷ In response to the need for rapid COVID-19 testing and surveillance, the Governor of NJ enacted the Division of Consumer Affairs administrative order 2020-06 on May 13, 2020, which authorized pharmacists to perform COVID-19 testing.⁸ The goal of this new role for pharmacists was to increase testing capacity and resources available to suspected COVID-19-positive patients. Previous studies show that the benefits of contact tracing are enhanced by reducing the time between symptom onset and testing results.^{9,10} With over 2000 pharmacies across the state, NJ pharmacists are more readily accessible than many other healthcare providers and may serve as the first point-of-contact for many patients.¹¹

Having pharmacists perform POCT is not unprecedented, as Clinical Laboratory Improvement Amendments of 1988 (CLIA)-waived tests for influenza, streptococcal infections, glycosylated hemoglobin, and cholesterol have already been implemented.⁹ From 2015 to 2020, the number of CLIA-waived community pharmacies increased by 45% (from 10 626 to 15 671), becoming the second largest provider in the United States.¹² Pharmacists have played an important role in the implementation of disease screening, vaccinations, testing, and medication access during previous public health crises, such as the 2005 Hurricane Katrina natural disaster and 2009 H1N1 pandemic.¹³⁻¹⁶ The utilization of pharmacists and pharmacy professionals in the response to the COVID-19 pandemic should thus be encouraged, although the challenges that prevent pharmacists from doing so must be addressed.

Pharmacist participation in POCT is limited by regulatory requirements and access to test kits.¹⁷ Pharmacies looking to participate in COVID-19 testing are required to apply for a CLIA waiver and contact local and state public health departments for procedures and requirements to collect and ship specimens appropriately.¹² The Centers for Disease Control and Prevention (CDC) also recommend that all staff conducting tests complete Occupational Safety and Health Administration (OSHA) Respiratory Protection training for proper personal protective equipment (PPE) donning and doffing.¹⁸

Authorizing pharmacists to perform COVID-19 testing expands pharmacy services, promotes interprofessional collaboration, and moves the profession forward. However, performing these tests may also be perceived as a health risk or unnecessary increase in workload for a profession struggling with a high burnout rate.¹⁹ This research aims to identify NJ pharmacists' perceptions regarding COVID-19 testing and the potential impact of testing within pharmacies.

Study Methods

Registered pharmacists in NJ were emailed a link to an anonymous electronic survey ([Appendix 1](#)) that assessed their perceptions and barriers regarding COVID-19 testing in community pharmacies. Email addresses were obtained from the NJ State Board of Pharmacy website in the NJ Division of Consumer Affairs to solicit survey participation. The study was conducted over a 14-day period, beginning with the initial email on August 5, 2020. One additional e-mail reminder was sent to non-responders on day 10 of the collection period. The survey was closed on August 19, 2020, and responses were kept confidential. No financial or other incentive was offered to take part in the study.

The survey was created using Qualtrics^{XM} (Qualtrics LLC, Provo, UT), an online survey platform. Survey questions assessed demographics, community pharmacy practice types and description, perceptions regarding the COVID-19 testing administrative order, comfort level to perform COVID-19 testing, and perceived barriers to testing. Inclusion criteria included NJ licensed pharmacists actively practicing in the community pharmacy setting. The study was Institutional Review Board approved.

Statistical Methods

Survey responses were split into two cohorts, those pharmacists currently providing COVID-19 testing and those who were not. Demographic variables, logistic barriers to performing COVID-19 testing, and personal concerns about performing COVID-19 testing were compared between cohorts using a Chi square test, with adjusted residuals used to determine where differences lie in the case of a significant P value. All results are presented as the number and percentage for each survey response. A P value less than .05 was considered significant for all analyses.

Results

The survey was distributed to 15 423 registered NJ pharmacists and completed by 523 recipients, for an overall survey response rate of 3.39%. Of the 523 respondents, only 311 met the inclusion criteria (95 were not licensed and practicing in NJ, and 115 were not working in the community setting). An additional 27 respondents did not indicate whether they or

Table 1. Demographic Characteristics.

Variable	Currently Testing [no. (%)]	Not Testing [no. (%)]	P value*
Gender	Male, 20 (50.0) Female, 20 (50.0)	Male, 96 (43.2) Female, 125 (56.3)	NS
Ethnicity	Asian, 11 (22.9) Black/African American, 1 (2.08) Hispanic or Latino, 4 (8.33) White/Caucasian, 26 (54.2)	Asian, 65 (29.3) Black/African American, 9 (4.05) Hispanic or Latino, 8 (3.60) White/Caucasian, 122 (54.95)	NS
Community setting	Chain, 35 (76.1) ^a Independent, 9 (19.6) Mass Merchandiser, 2 (4.35) Supermarket, 0 ^b	Chain, 115 (48.3) ^a Independent, 79 (33.2) Mass Merchandiser, 11 (4.62) Supermarket, 33 (13.9) ^b	.002
Job title	Staff pharmacist, 17 (32.1) ^c Pharmacy Manager/Owner, 17 (21.1) Pharmacy Director/Supervisor, 4 (7.55) ^d Pharmacist in Charge, 11 (20.75) Other, 4 (7.55)	Staff pharmacist, 142 (57.3) ^c Pharmacy Manager/Owner, 59 (23.8) Pharmacy Director/Supervisor, 6 (2.42) ^d Pharmacist in Charge, 41 (16.5) Other, 12 (4.84)	.025
Years in pharmacy practice	Less than 1 year, 2 (4.35) 1-5 years, 22 (47.8) ^e 6-10 years, 9 (19.6) Greater than 10 years, 13 (28.3) ^f	Less than 1 year, 6 (2.52) 1-5 years, 60 (25.2) ^e 6-10 years, 38 (16.0) Greater than 10 years, 134 (56.3) ^f	.004
Hours worked per week	Less than 10, 1 (2.22) 10-20, 0 20-30, 4 (8.89) 30-40, 23 (51.1) Greater than 40, 17 (37.8)	Less than 10, 14 (6.25) 10-20, 0 20-30, 27 (12.05) 30-40, 103 (46.0) Greater than 40, 80 (35.7)	NS

*Chi square test.

^asignificantly more testing and fewer non-testing Chain pharmacists than expected based on adjusted residuals ($P < .001$).^bsignificantly fewer testing and more non-testing Supermarket pharmacists than expected based on adjusted residuals ($P < .01$).^csignificantly fewer testing and more non-testing Staff Pharmacists than expected based on adjusted residuals ($P < .01$).^dsignificantly more testing and fewer non-testing Pharmacy Director/Supervisors than expected based on adjusted residuals ($P = .048$).^esignificantly more testing and fewer non-testing pharmacists than expected who have worked for 1-5 years based on adjusted residuals ($P < .01$).^fsignificantly fewer testing and more non-testing pharmacists than expected who have worked for >5 years based on adjusted residuals ($P < .001$).

their pharmacy were performing COVID-19 testing and were excluded from further analysis.

Two hundred twenty-three (223) respondents reported that their stores were not testing for COVID-19. Sixty-one (61) respondents indicated that their stores were testing, but only 46 reported that they were personally testing patients. As a result, a total of 238 respondents (83.8%) were not currently providing COVID-19 testing, while 46 (16.2%) were testing.

Demographic characteristics of the respondents are provided in Table 1. When comparing pharmacists who were currently providing COVID-19 testing to those who were not, there were significant differences with respect to the type of community pharmacy setting ($P = .002$), job title ($P = .025$), and years in pharmacy practice ($P = .004$). More testers than expected were working for pharmacy chains ($P < .001$), and fewer in supermarket pharmacies ($P < .01$). There were also significantly fewer staff pharmacists than expected ($P < .01$), and more pharmacy directors or supervisors ($P = .048$) providing COVID-19 testing. Testers were more likely than expected to have been in practice from one to five years ($P < .01$) and less likely to have been in practice for greater than 10 years ($P < .001$).

Logistical barriers to COVID-19 testing are provided in Table 2. Of the 223 respondents not providing COVID-19 testing, 75.3% attributed this to a corporate or business decision by their pharmacy employer not to test patients. Lack of a pharmacy drive-thru (17.7%), insufficient staff (17.2%), and potential workflow disruption (17.2%) were the most common reasons given for not testing. Increased staffing (40.0%) and increased reimbursement (27.7%) were the factors cited most often that would improve the ability to perform COVID-19 testing.

Personal concerns about COVID-19 testing are given in Table 3. Among those providing COVID-19 testing, the most common concerns were spreading the virus to others (35.7%), increased workload associated with testing (28.6%), and exposure to other people in the pharmacy (21.4%). Among those not testing, the two most common concerns were increased workload (30.4%) and spreading the virus to others (28.6%).

Discussion

This study aimed to explore NJ pharmacists' perceptions about performing COVID-19 POCT within their community

Table 2. Potential logistical barriers to COVID-19 testing in the community pharmacy setting.

Question	Currently Testing [no. (%)]	Not Testing [no. (%)]	P Value
Do you feel you have adequate resources to perform COVID-19 testing?	Yes, 18 (43.9) No, 23 (56.1)	–	–
Is not performing COVID-19 testing in your pharmacy a Business/Corporate decision?	–	Yes, 165 (75.3) No, 54 (24.7)	–
Why does your pharmacy not provide COVID-19 testing? (Select all that apply)	–	Lack of drive-thru, 65 (17.7) Insufficient space, 55 (15.0) Insufficient PPE, 37 (10.1) Insufficient staff, 63 (17.2) Workflow disruption, 63 (17.2) Unsure, 53 (14.4) Other, 31 (8.45) ^a	–
Which of the following do you feel would improve your ability to perform COVID-19 testing? (Select all that apply)	Addition of drive-thru, 2 (3.08) Increased space, 11 (16.9) Increased PPE, 2 (3.08) Increased staffing, 26 (40.0) Increased reimbursement, 18 (27.7) Other, 6 (9.23) ^b	–	–

PPE, personal protective equipment.

^aResponse (n): Corporate decision (10); Employee safety concerns (6); No direct patient interaction (4); Disagree with testing (3); Reimbursement concerns (3); High volume (1); Insufficient space (1); Lack of supplies (1); Liability concerns (1); Store does not meet requirements (1).

^bResponse (n): Financial incentive (2); additional cleaning supplies (1); decreased workload (1); less stringent testing storage and shipping requirements (1).

pharmacy practice sites. The survey was administered approximately 3 months after NJ pharmacists were authorized to order and perform COVID-19 tests.⁸ Only 16.2% of respondents were currently performing testing, and of the 83.8% not testing, only 49.6% believed that pharmacists should provide COVID-19 testing. The results add to literature by supporting previous survey studies regarding community pharmacist interest in providing POCT, including COVID-19 testing.^{20,21} Gallimore and colleagues surveyed community pharmacy managers in Wisconsin, and reported that only 17.1% were currently offering POCT in their pharmacies, with 48.3% planning to introduce or expand POCT services within the next five years.²⁰ Paul and colleagues surveyed community pharmacists in Alaska about their interest in providing nasal or antibody testing for COVID-19.²¹ Overall interest was high (63% for nasal and 60% for antibody testing), although a measurable percentage of these respondents indicated that their interest hinged on having a mechanism for reimbursement in place at the time of testing (30% for nasal and 25% for antibody testing).²¹ Nguyen and colleagues surveyed Idaho community pharmacists in April 2020 and reported that 41% would “probably or definitely be willing” to provide COVID-19 testing, if available.²² Study findings were also consistent with a survey conducted by the National

Community Pharmacists Association, which reported that over 50% of pharmacists expressed a desire to perform COVID-19 testing.²³

Lack of pharmacist reimbursement for POCT services is one of the barriers commonly encountered by community pharmacists looking to provide POCT services.^{20,21,24–26} Among the respondents in this study who were currently testing for COVID-19, 27.7% reported that increased reimbursement would improve their ability to provide POCT. COVID-19 diagnostic and antibody testing can be billed under Medicare Part B and may be covered by Medicaid through collaboration with the state.²⁷ In the absence of legislation granting pharmacists permanent provider status, pharmacies must identify alternate methods of reimbursement.²⁵ One option is out-of-pocket payment by the patient for services rendered. Hohmeier and colleagues surveyed 188 individuals representative of United States population demographics, and reported that the age group encompassing 20 to 34 years of age was most amenable to POCT testing in a community pharmacy.²⁵ This cohort also indicated that they would be willing to pay fifty dollars (\$50) or more for these services, in contrast to the entire study population, which indicated a willingness to pay fifty dollars (\$50) or less for POCT services.²⁵

Table 3. Personal Concerns About COVID-19 Testing in the Community Pharmacy Setting.

Question	Currently Testing [no. (%)]	Not Testing [no. (%)]	P value ^a
Do you believe that pharmacists should play a larger role in healthcare by providing COVID-19 testing?	Yes, 29 (63.0) No, 17 (37.0)	Yes, 117 (49.6) No, 119 (50.4)	NS
I Am comfortable performing COVID-19 testing	Yes, 31 (75.6) No, 10 (24.4)	–	–
I Would be comfortable performing COVID-19 testing	–	Yes, 29 (51.8) No, 27 (48.2)	–
Select one of the following responses that best illustrates why you may not feel comfortable performing COVID-19 testing	Exposure to people, 3 (21.4) Spreading virus to others, 5 (35.7) Contracting the virus, 0 Increased workload, 4 (28.6) Impact on mental health, 0 Unfamiliar with procedures, 1 (7.14) Unfamiliar with regulations, 0 Liability, 0 Other, 1 (7.14) ^b	Exposure to people, 24 (11.8) Spreading virus to others, 59 (28.9) Contracting the virus, 24 (11.8) Increased workload, 62 (30.4) Impact on mental health, 1 (.49) Unfamiliar with procedures, 10 (4.90) Unfamiliar with regulations, 2 (.98) Liability, 8 (3.92) Other, 14 (6.86) ^c	NS

^aChi square test.^bMultiple responses selected.^cResponse (n): Multiple responses selected (7); reimbursement (2); clinical concern (1); not applicable (1); personal comorbidities (1); political concern (1); workflow (1).

Logistical barriers identified in this survey included the lack of a pharmacy drive-thru (17.7%), insufficient staff (17.2%), and potential workflow disruption (17.2%). More than 75% of pharmacists noted personal exposure to COVID-19, exposure to other individuals within the pharmacy, and risk of liability as safety concerns. However, the most common reason pharmacists were not comfortable performing COVID-19 testing was not related to safety, but rather, the increase in workload. Pharmacists consistently described the lack of reimbursement, need for staffing assistance to minimize the risk of medication errors secondary to the increased workload, and test quality as barriers. Scheduling, operational factors, and testing procedures were also identified by Gallimore and colleagues as barriers to POCT implementation.²⁰ Similarly, Nguyen, et al identified needs related to COVID-19 testing safety, reimbursement, workload, and testing logistics.²²

Particular pharmacy settings, job titles, and experiences may be better positioned to offer POCT. For example, stores with drive-through windows and/or designated private testing areas can overcome physical space and privacy-related barriers. This may support the survey finding that significantly more chain community pharmacists and fewer supermarket community pharmacists than expected were providing COVID-19 testing. Additionally, of the respondents not currently providing testing, 165 indicated that it was a corporate decision not to test, while 54 reported that it was not a

corporate decision. A Chi square analysis of these responses revealed that supermarket pharmacies were significantly more likely than independents to make the corporate decision not to offer testing for COVID-19 ($P < .001$; data not shown). The impact of POCT on the dispensing pharmacist's workflow may explain why more pharmacy directors or supervisors than expected were providing COVID-19 testing. Their involvement in POCT may help to minimize workflow disruptions and allow dispensing pharmacists to accomplish competing responsibilities. In addition, pharmacy directors or supervisors may have more interaction with regulatory boards and therefore, more familiarity and comfort with required data collection, record-keeping, and reporting procedures. Finally, while all pharmacists are trained to perform clinical tasks such as POCT, this survey suggested that more community pharmacists with one to five years of practice experience were providing COVID-19 testing. The continued drive to deliver patient-centered services and expand pharmacy's scope may be more readily recognized by newer graduates who have recently completed a Doctor of Pharmacy curriculum designed to train on the "application of clinical laboratory data and disease state management," as per the Accreditation Council for Pharmacy Education (ACPE) *Standards 2016*.²⁸ Furthermore, new pharmacy graduates may have a greater drive to exceed expectations in clinical practice and the workplace.

This survey provides a glimpse of NJ pharmacists' perceptions of COVID-19 testing shortly after the authorization to test was granted. In the future, these barriers can be addressed to promote successful uptake of expanded pharmacy services, including POCT, during routine times and/or public health crises. Pharmacy Emergency Preparedness and Response (PEPR) Framework recommendations include targeted training and education on key framework areas, and policymaking, in addition to ensuring adequate resources for pharmacists to provide patient care and population health interventions.¹³ Stress-related challenges, good mental health practice, and peer support groups may also play a role in increasing the participation of pharmacists and improving overall perceptions towards COVID-19 testing.¹³ Interestingly, study findings do not support PEPR Framework recommendations to develop mental health plans, as only one respondent noted the negative impact on mental health as a concern.

This study has some notable limitations. The survey was only open for a 2-week time-period during August 2020, approximately 3 months after the NJ Governor's administrative order, and only 523 responses were received (3.39% response rate). Selection bias may limit generalizability of study findings as respondents with strong opinions about the topic may have been more likely to complete the survey. Findings from this small sample may not represent the

perceptions of all community pharmacists. Therefore, it represents only a snapshot of NJ community pharmacy participation in COVID-19 POCT at the beginning of the COVID-19 pandemic. Keeping the survey active for a longer timeframe may have improved the low response rate and increased generalizability. Administering a second survey during a later period may have captured additional findings, as community pharmacists' responsibilities continued to increase during the pandemic, especially with COVID-19 testing and vaccination efforts. Finally, survey results could not account for responses from multiple pharmacists working in the same pharmacy, or the type of COVID-19 test being performed.

Conclusion

Pharmacists have been and will continue to play an essential role in the healthcare response to the COVID-19 pandemic. This study provides a snapshot of NJ community pharmacists' perceptions of COVID-19 testing approximately 3 months after the administrative order was issued. It revealed that inadequate staffing and space, and concerns about reimbursement and disruption to normal workflow are the most identified barriers to COVID-19 testing. Moving forward, these findings may provide insight when addressing barriers related to expanding pharmacy services, including POCT.

Appendix I

Survey Questions

1. Are you currently licensed and practicing pharmacy in the state of NJ?
 - a. Yes b. No
2. Do you work in a community pharmacy?
 - a. Yes b. No
3. What type of community setting do you work in?
 - a. Chain b. Independent c. Mass merchandiser d. Supermarket
4. What is/are your position(s) as a practicing community pharmacist? (Select all that apply)
 - a. Staff pharmacist b. Pharmacy Manager/Owner c. Pharmacy Direct Supervisor d. Pharmacist in Charge e. Other
5. How long have you worked as a pharmacist?
 - a. Less than 1 year b. 1 to 5 years c. 6 to 10 years d. More than 10 years
6. How many hours do you typically work in a week?
 - a. 0-10 b. 10-20 c. 20-30 d. 30-40 e. 40+
7. Do you believe that pharmacists should play a larger role in healthcare by providing COVID-19 testing?
 - a. Yes b. No
8. Are you aware of New Jersey (Division of Consumers Affair) administrative order allowing pharmacists to administer COVID-19 testing?
 - a. Yes (continue to 9) b. No (skip to 16)
9. Is COVID-19 testing performed in your pharmacy
 - a. Yes b. No (skip to 11)
10. Do you perform COVID-19 testing in your pharmacy?
 - a. Yes (skip to 13) b. No (skip to 16)
11. Is not performing COVID-19 testing in your pharmacy a Business/Corporate Decision?
 - a. Yes (go to 12) b. No (skip to 16)
12. Why does your pharmacy not provide COVID-19 testing? (select all that apply) (skip to 15)
 - a. Lack of drive-thru b. Insufficient space c. Insufficient/lack of PPE d. Insufficient staff e. Potential disruption to workflow f. Unsure g. Other
13. Do you feel that you have adequate resources to perform COVID-19 testing?
 - a. Yes (skip to 15) b. Unsure (go to 14) c. No (go to 14)
14. Which of the following do you feel would improve your ability to perform COVID-19 testing? (select all that apply)
 - a. Addition of a drive-thru b. Increased space c. Increased PPE d. Increased staffing e. Increased reimbursement f. Other
15. I am comfortable performing COVID-19 testing
 - a. Yes (skip to 18) b. Unsure (go to 17) c. No (go to 17)
16. I would be comfortable performing COVID-19 testing
 - a. Yes (skip to 18) b. Unsure (go to 17) c. No (go to 17)
17. Select one of the following responses that best illustrates why you may not feel comfortable performing COVID-19 testing?

- a. Potential exposure to people in the pharmacy
 b. Concern about spreading the virus to others (eg family, friends, public) c. Personal exposure/contracting the virus d. Increased in workload e. Negative impact on mental health f. Unfamiliar with testing procedures (eg performing a nasal swab/spit test) g. Unfamiliar with testing regulations/requirements h. Risk/liability i. Other
18. Regarding pharmacists' ability to provide COVID-19 testing in the pharmacy, are you concerned about

Spreading the virus to others (eg family, friends, public)

a. Yes b. No

Potential exposure to people in the pharmacy

a. Yes b. No

Personal exposure/contracting the virus

a. Yes b. No

Increased workload

a. Yes b. No

Negative impact on mental health

a. Yes b. No

Following proper testing procedures (eg performing a nasal swab/spit test)

a. Yes b. No

Meeting testing regulations/requirements

a. Yes b. No

Risk/Liability

a. Yes b. No

19. What is your gender identity?
 a. Male b. Female c. Non-binary/Genderqueer
 d. Agender e. Bigender f. Transmasculine
 g. Transfeminine. h. Prefer not to answer i. Other
20. What is your primary racial or ethnic identification?
 (Select all that apply)
 a. American Indian/Alaskan Native b. Asian
 c. Black/African American d. Hispanic or Latino
 e. Pacific Islander/Native Hawaiian f. White/Caucasian
 g. Prefer not to answer h. Other
21. Please provide any additional comments/concerns regarding performing COVID-19 testing

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