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Vaccination barriers and opportunities at syringe services programs in the United States, June–August 2021—A cross-sectional survey

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Abstract

Background: Syringe services programs (SSPs) are an important venue for reaching people who inject drugs (PWID) to offer preventive services; however, not all SSPs offer vaccinations. We aimed to describe barriers and opportunities for SSPs to offer vaccinations.

Methods: During June–August 2021, we conducted a descriptive, cross-sectional survey of SSP providers in the United States. SSPs were recruited from national listservs using purposive sampling to ensure geographic diversity. The survey included questions about SSP characteristics, client demographics, existing vaccination resources, resource needs, and staff perspectives on client vaccination barriers. Statistical comparisons were made using Pearson's chi-square test.

Results: In total, 105 SSPs from 34 states responded to the survey; 46 SSPs (43.8%) offered on-site vaccinations. SSPs without on-site vaccinations were more likely operated by community-based organizations (81.4% vs 30.4%, $p < 0.001$) in urban areas (71.4% vs 40.0%, $p = 0.002$) than

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Disclaimer

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Conflict of Interest

No conflicts declared.

CRediT authorship contribution statement

MPM is the principal investigator for the project and wrote the original draft of the manuscript. EHT provided supervision for project planning and execution. YZ conducted data cleaning and analysis. ER implemented the project and recruited participants. All authors contributed to the conceptualization and study design, reviewed and edited manuscript drafts, and have approved the final manuscript.

Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at doi:10.1016/j.drugalcdep.2022.109540.

SSPs offering on-site vaccinations. The most common staffing need was for personnel licensed to administer vaccines (74/98, 75.5%). Over half of SSPs reported vaccine supply, administration supplies, storage equipment, and systems to follow-up clients for multidose series as important resource needs. The most common resource need was for reminder/recall systems for vaccines with multidose series (75/92, 81.5%). Vaccine safety concerns (92/95, 96.8%) and competing priorities (92/96, 95.8%) were the most common staff-reported client barriers to vaccinations.

Conclusions: Addressing missed opportunities for offering vaccinations to PWID who use SSPs will require increased numbers of on-site personnel licensed to administer vaccines and additional training, vaccination supplies, and storage and handling equipment.

Keywords

Vaccination; Syringe exchange programs; Drug user; Hepatitis A; Hepatitis B; COVID-19

1. Introduction

People who inject drugs (PWID) face an increased risk of certain infectious diseases, including vaccine-preventable diseases such as hepatitis A, hepatitis B, tetanus, and pneumococcal pneumonia (Centers for Disease Control and Prevention, 1998; Hind, 1990; Nelson et al., 2011; Yin et al., 2020). PWID have been disproportionately affected by hepatitis A outbreaks in the United States (Foster et al., 2018) and have an increased risk of severe illness from COVID-19 (Baillargeon et al., 2020). Despite recommendations for hepatitis A and hepatitis B vaccination for PWID and annual recommendations for influenza vaccination, susceptibility to these vaccine-preventable diseases remains unacceptably high (Carey et al., 2005; Figgatt et al., 2020; Frew et al., 2021; Koepke et al., 2019; Lum et al., 2008).

PWID experience barriers to accessing health care in traditional clinical settings. In addition to cost and transportation barriers (Miller-Lloyd et al., 2020), some PWID are reluctant to seek care because of previous negative experiences with health care providers (Allen et al., 2020; Frost et al., 2021; Summers et al., 2018). Lessons learned from hepatitis A outbreaks show that working with trusted communicators and bringing vaccine to locations where people already receive services are key strategies to effective vaccination efforts (Montgomery et al., 2021; Snyder et al., 2019; Wooten, 2019). For these reasons, syringe services programs (SSPs) are ideally situated to offer vaccinations to PWID.

SSPs are programs that provide access to and disposal of sterile syringes and injection equipment in addition to other services to reduce infection, injuries, and overdoses related to using drugs. Comprehensive SSPs are an important strategy for reducing infections related to injection drug use such as HIV and hepatitis C virus (HCV) (Des Jarlais et al., 2020; Thakarar et al., 2020). SSPs can serve as an important source for primary care services for PWID (Burr et al., 2014; Heinzerling et al., 2006) and can play an important role during viral hepatitis outbreaks (Bialek et al., 2005; Stevenson et al., 2001). With the partial removal of a ban on federal funding for SSPs in 2016, the number of SSPs has grown (Bixler et al., 2018; Des Jarlais et al., 2020). However, funding for SSPs can be tenuous (Jones, 2019), and staffing capacity and resources for offering clinical services, such as

venipuncture for HCV testing or medications for opioid use disorder, are variable (Behrends et al., 2018). Federal funding can be used to support SSPs but not for the purchase of needles or syringes (Adams, 2020). The capacity for offering vaccinations and the opportunities for scaling up vaccination services in SSPs are not well understood. Our aim was to describe barriers and opportunities for SSPs to offer vaccinations to PWID and to assess the resources needed to overcome those barriers.

2. Materials and methods

During June–August 2021, the Centers for Disease Control and Prevention (CDC) partnered with a national advocacy and capacity building organization to conduct a multistate, cross-sectional survey of SSPs in the United States. An invitation to SSP directors or their designee to participate was disseminated to SSPs through the national organization's email listservs and CDC's health department partners. Participants were eligible if they were 18 years of age or older, could read English, and had been working at the SSP for at least 6 months. One response was allowed per SSP. Participants were provided a $40 e-gift card for participation. We used purposive sampling, a nonprobability sampling method, to ensure that at least one SSP was included from all ten Department of Health and Human Services (HHS) regions (Department of Health and Human Services, 2022) by conducting additional outreach efforts to SSPs in HHS regions with low (0–1) responses.

The survey included questions about SSP characteristics, client demographics, existing vaccination resources, resource needs, and staff perspectives on client vaccination barriers (Supplemental File). SSP providers were asked whether they currently offer vaccinations on site. SSPs with on-site vaccinations were asked additional questions about current vaccination practices. SSPs without on-site vaccinations were asked about resources needed to start vaccination services. CDC determined this study to be public health evaluation not requiring institutional review board review. All participants provided written consent.

Descriptive analyses on SSP characteristics, existing vaccination resources, resource needs, and client vaccination barriers were performed for SSPs with and without on-site vaccinations. Median and interquartile range (IQR) were calculated for continuous variables and frequency and percentage for categorical variables. The difference in percentage between SSPs with on-site vaccinations and without was tested with Pearson's chi-square test, and the difference in median was tested with nonparametric test for location (Wilcoxon two-sample test). All tests were two-sided, and a p-value of ≤ 0.05 was considered statistically significant. Missing responses were excluded from analysis. Statistical analysis was conducted using SAS software version 9.4 (SAS Institute Inc.).

3. Results

In total, 105 SSPs participated in the survey. Overall, 46 SSPs (43.8%) reported having on-site vaccinations and 59 (56.2%) reported not having on-site vaccinations. Respondents worked at SSPs from 34 states in all 10 HHS regions (region 1, n = 8; region 2, n = 11; region 3, n = 13; region 4, n = 19; region 5, n = 16, region 6, n = 5; region 7, n = 2; region 8, n = 10; region 9, n = 10, region 10, n = 11).

3.1. SSP Characteristics and Client Demographics

Several differences in SSP characteristics were notable between SSPs with and without on-site vaccinations. The median number of unique clients visiting monthly was smaller for SSPs with on-site vaccinations (125 visits per month) than SSPs without on-site vaccinations (250 visits per month, $p = 0.02$) (Table 1). SSPs with on-site vaccinations had lower reported proportion of clients who were Asian (0% vs 1%, $p = 0.033$) or Black/African American (2% vs 9%, $p = 0.008$) than SSPs without on-site vaccinations. SSPs with on-site vaccinations were more likely located in rural areas (60.0%) than SSPs without on-site vaccinations (28.6%, $p = 0.002$). SSPs with on-site vaccinations were more likely to operate from a fixed site (93.5% vs 72.9%, $p = 0.001$) and less likely to use a mobile (32.6% vs 71.2%, $p < 0.001$) or secondary delivery model (17.4% vs 49.2%, $p < 0.001$) than SSPs without on-site vaccinations. SSPs with on-site vaccinations were more likely to be operated by a health department (60.9% vs 10.2%, $p < 0.001$) and less likely to be operated by a community-based organization (30.4% vs 81.4%, $p < 0.001$) than SSPs without on-site vaccinations.

3.2. Vaccination Services

Most SSPs responded that offering vaccination services was somewhat (55/101, 54.5%) or very important (33/101, 32.7%) relative to other services offered (e.g., needle and syringe exchange). The survey asked about whether the SSP had sufficient funding to cover various categories of vaccination supplies. The category with the least sufficient funding was vaccine doses, for both SSPs with on-site vaccinations (27/41, 65.9%) and SSPs without on-site vaccinations (4/49, 8.2%). Nearly all SSPs with on-site vaccinations had staff who were licensed to administer vaccines (41/45, 91.1%) while few SSPs without on-site vaccinations had staff who were licensed to administer vaccine (12/55, 21.8%). The availability of data entry staff was high for SSPs with (40/46, 87.0%) and without (40/57, 70.2%) on-site vaccinations.

Among 46 SSPs that offer on-site vaccinations, nearly all offered COVID-19 (42/46, 91.3%); approximately three-quarters offered hepatitis A (35/46, 76.1%), influenza (33/45, 73.3%), and hepatitis B (31/44, 70.5%); and more than half offered tetanus vaccines (24/42, 57.1%) (Table 2). The most common source for receiving vaccines was from a health department (35/46, 76.1%). Few SSPs with on-site vaccinations (9/40, 22.5%) receive grants to cover vaccination costs. Nearly all SSPs with on-site vaccinations (38/45, 84.4%) were able to submit vaccine administration data to the state immunization information system (IIS). Nearly as many (34/43, 79.1%) were able to access the IIS to review clients' vaccination history. Approximately three-fifths of SSPs have a reminder or recall system to follow-up with clients to complete multidose series (26/42, 61.9%).

Among SSPs that do not offer on-site vaccinations, most (47/59, 79.7%) reported that they collaborate with another provider or facility to refer clients to a nearby location for vaccination. Collaborations were most often with the health department (27/59, 45.8%) or a clinic (21/59, 35.6%). One-fifth (12/59, 20.3%) reported no collaboration to link clients to vaccination services.

3.3. Resource and Staffing Needs

The most common reported resource needs for SSPs with on-site vaccinations were systems for client follow-up to complete multidose vaccine series (26/37, 70.3%), training on how to enroll clients in health insurance (20/34, 58.8%), and vaccine administration supplies (19/37, 51.4%) (Table 3). Reported resource needs for all categories were higher for SSPs without on-site vaccinations. Over half of SSPs without on-site vaccinations reported that they would need equipment to store vaccine (50/56, 89.3%), systems for client follow-up (49/55, 89.1%), more vaccine supply (45/51, 88.2%), training on how to enroll clients in health insurance (43/57, 75.4%), and more vaccine administration supplies (41/55, 74.5%) in order to provide vaccinations. When asked about the single most important resource need, responses were variable, and no clear consensus on a single resource need was identified.

Over 60% of SSPs without on-site vaccinations reported staffing needs in every assessed category in order to provide vaccinations. Additionally, over half of SSPs with on-site vaccinations reported staffing needs in several categories, including staff training on motivational interviewing and addressing vaccination questions (25/43, 58.1%), more staff licensed to administer vaccines (23/42, 54.8%), more time to administer vaccine during client visits (22/42, 52.4%), and training on screening clients for susceptibility and eligibility (21/42, 50.0%). When asked for the single most important staffing need, over half of SSPs with on-site vaccinations reported either staff licensed to administer vaccines (16/40, 40.0%) or training on motivational interviewing (10/40, 25.0%). For SSPs without on-site vaccinations, most reported a need for staff licensed to administer vaccines (32/55, 58.2%).

SSPs without on-site vaccinations were asked an additional question about what would be needed to provide vaccinations. Over three-quarters of respondents answered funding to purchase vaccines (49/ 59, 83.1%), staff who were licensed to administer vaccines (46/59, 78.0%), and staff who are trained to administer vaccines (45/59, 76.3%).

3.4. Staff Perspectives on Client Barriers

The most common reasons for clients to decline vaccination (ranked as “somewhat or very common”) according to SSP staff were concerns about vaccination (e.g., side effects, safety, mistrust of manufacturers) (92/95, 96.8%), competing needs of higher priority (e.g., food, clothing, shelter) (92/96, 95.8%), and low perceived risk by the client (81/95, 85.3%) (Table 4).

4. Discussion

In this descriptive survey of SSPs in the United States, we identified specific barriers and opportunities to increase vaccination services at SSPs. CDC recommends using an integrated approach to offer services to address infectious disease, behavioral, and mental health needs of PWID (Centers for Disease Control and Prevention, 2012). Previous studies have demonstrated that offering vaccinations at SSPs is feasible and acceptable (Altice et al., 2005; Stancliff et al., 2000), including during the COVID-19 pandemic (Heidari et al., 2022). Hepatitis B vaccination programs at SSPs can be cost-saving to health care systems (Hu et al., 2008). Offering integrated clinical services at SSPs allows

PWID to access services in a supportive, convenient, and judgement-free environment (Carnes et al., 2021; Frost et al., 2021). In our survey, most SSPs agreed on the need for offering vaccinations to PWID. However, most SSPs that participated in our survey do not currently offer on-site vaccination services. This presents an important opportunity to improve protection against vaccine preventable diseases among PWID if current barriers can be appropriately addressed. SSPs regularly operate with constrained funding, which has been further constrained by COVID-19 (Wenger et al., 2021). Resource needs in our survey included vaccination tracking systems, supplies, vaccines, and storage equipment and were overall greater among SSPs without on-site vaccinations. Resource needs were heterogeneous for SSPs with and without on-site vaccinations, with no consensus on a single most important need. However, SSPs reported a clear consensus on the need for more licensed vaccination staff as the single most important staffing need.

Several SSP characteristics were common among those offering on-site vaccinations. SSPs with on-site vaccinations were more likely to have a fixed site model, to be operated by a health department, and to be in a rural area. In contrast, SSPs without on-site vaccinations had a larger number of client visits and were more likely to offer mobile services or secondary delivery (providing clients with supplies to distribute to their peers) and to be operated by community-based organizations. Offering on-site vaccinations requires a minimum set of infrastructure and personnel, including licensed clinical staff, space for confidential conversations (e.g., exam rooms), and equipment to store vaccines. SSPs with existing infrastructure for clinical services are likely better resourced to offer vaccination services. Peer-delivery models are important for expanding access to sterile injection supplies but face larger challenges in offering vaccination services, which could be addressed by offering vaccination training to peers and providing equipment to maintain and monitor vaccine storage and handling requirements. To expand vaccination services for PWID who access SSPs, future efforts will need to meet the needs of larger SSPs operated by community-based organizations.

The need for more staff who are licensed to administer vaccines was the most consistent staffing need across SSPs with and without on-site vaccinations. The lack of licensed staff poses a critical barrier to expanding vaccination services to PWID in SSPs. During the COVID-19 pandemic and hepatitis A outbreaks, some public health jurisdictions expanded the types of providers who are permitted to administer vaccines (Montgomery et al., 2021; Tewarson et al., 2021). Outside of outbreak settings, expanding the number of personnel who are licensed to administer vaccines, such as community health workers, emergency medical technicians, phlebotomists, and students in health care professions, would improve vaccination access in SSPs. In addition to needing licensed vaccination staff, SSPs without on-site vaccinations had notably higher needs for staff training on preparing and administering vaccines, managing vaccine administration data, and storing and handling vaccines than SSPs with on-site vaccinations. CDC and partners have developed free vaccination training resources that can be used to fill this gap, provided that other barriers (e.g., staffing, funding) can be addressed (Centers for Disease Control and Prevention, 2019; Immunization Action Coalition, 2021). The most common training request for SSPs with on-site vaccinations was for motivational interviewing on how to address client vaccination questions. Requests for other staff training were less common, suggesting that motivational

interviewing is missing in some trainings for licensed vaccination staff. Efforts to increase the number of licensed vaccinator staff should be accompanied by adequate training, including how to discuss vaccinations with clients.

Our survey highlights the important role of partnerships with health departments and health systems in offering vaccinations through SSPs. Few SSPs with on-site vaccinations received grants to cover vaccination costs, few were enrolled as 317 adult vaccine providers (the federal funding program to purchase vaccines for underinsured or uninsured adult populations), and few purchased vaccines directly from manufacturers. Health departments were the most common source of vaccines for SSPs with on-site vaccinations. Most SSPs without on-site vaccinations partnered to refer clients to nearby locations for vaccinations, often with health departments and health clinics; however, offering preventive services on-site rather than by referral improves convenience and can improve uptake of vaccine (Campbell et al., 2007; Des Jarlais et al., 2001; Frost et al., 2021; Hood et al., 2020). When staff or other resources are lacking, SSPs should consider bringing outside clinical staff and resources on site through partnerships with health departments and health systems.

SSP staff reported competing priorities as one of the most common client barriers to vaccinations. Offering vaccinations at SSPs will be unsuccessful if there is no client demand for vaccinations. This barrier can be at least partially addressed by simultaneously assessing and meeting individuals' competing needs. This might require addressing active addiction or offering meals, modest incentives, transportation, or connections to housing and other social services (Allen et al., 2020; Carnes et al., 2021). Empowering SSPs to simultaneously address individuals' competing needs cannot guarantee vaccination acceptance; however, existing evidence suggests that increases in vaccination acceptance are possible. Several studies, including two randomized controlled trials among PWID, have found that offering monetary incentives resulted in higher hepatitis B vaccination completion than regular outreach (Seal et al., 2003; Stitzer et al., 2010; Topp et al., 2013). Other strategies to maximize the convenience of vaccinations have been shown to improve vaccination rates. These include providing vaccinations on site rather than by referral and, for hepatitis B, offering screening and vaccination simultaneously (Bowman et al., 2014; Campbell et al., 2007; Des Jarlais et al., 2001; Hu et al., 2008). SSPs are established to meet the needs of PWID. To accomplish this, SSPs will need support to provide a comprehensive range of services, outside of vaccination services and supplies alone.

This report is subject to limitations. Accurately estimating the number and characteristics of SSPs operating in the United States is difficult because a comprehensive list of all SSPs in the United States does not exist. We included indirect recruitment channels (e.g., distribution to contacts of contacts) and were unable to determine the number of SSPs contacted or a response proportion. The North America Syringe Exchange Network (NASEN) is trusted in the field, and their network, while optional to join, is seen as the most accurate enumeration of programs. In June 2021, NASEN listed 367 SSPs located in the United States, which gives an estimated 28.6% (105/367) response. Because of nonresponse bias, it is unclear whether SSPs that participated resemble SSPs that did not, which might limit the generalizability of our findings. SSPs with more limited resources and staffing might have been less likely to respond to the survey, which would result in underestimation of resource

and staffing needs in our survey responses. SSPs with an interest in vaccinations might have been more likely to participate in the survey, which would overestimate responses to questions about the importance of vaccinations. Demographic data collection is not standardized across SSPs (e.g., transgender status), which could limit data quality. We focused on vaccinations that are offered on site as opposed to through referral off site; however, there remains considerable variability in how and when vaccinations are offered on site that impact vaccination uptake. The survey was conducted during the COVID-19 pandemic after COVID-19 vaccine became available. This might have influenced existing resources, vaccine access, or perceptions of vaccinations. Respondents could have been responding to questions in the context of COVID-19 vaccine rather than vaccines generally. Lastly, client barriers to vaccination were assessed indirectly. Additional work is needed to determine client needs and barriers directly.

5. Conclusion

This cross-sectional, descriptive survey identified missed opportunities to reduce vaccine-preventable diseases among PWID by offering vaccination services at SSPs. Larger volume SSPs, those operated by community-based organizations, and those located in urban areas, have the greatest potential to benefit from an investment of resources. Critical staffing gaps, particularly for licensed vaccination staff will need to be addressed to expand vaccination services in SSPs. The diverse resource and staffing needs identified in the survey emphasize that solutions to address missed vaccination opportunities in SSPs will require a comprehensive approach. This can be achieved through greater investment of resources in SSPs, by strengthening SSP partnerships with nearby health departments and health systems, and by reexamining the types of providers who are licensed to administer vaccines.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Table 1

Characteristics of Syringe Services Program Participants in Vaccination Barriers and Opportunities Survey, June–August 2021.

	N (%) or median (IQR)			
Characteristics	**Overall (N = 105)**	**SSPs with vaccinations (n = 46)**	**SSPs without vaccinations (n = 59)**	**P-value[a]**
Total client visits per month, median (IQR) (3 missing)	200 (75, 382)	125 (73, 250)	250 (110, 443)	0.018
Number of clients (deduplicated) served per month, median (IQR) (20 missing)	100 (45, 210)	77 (28, 145)	135 (70, 300)	0.025
% of clients served at your SSP by age category (8 missing)				
Age 20 years or younger, median (IQR)	5 (1, 10)	5 (2, 10)	5 (1, 10)	0.290
Age 21–64 years, median (IQR)	90 (75, 94)	90 (80, 90)	88 (75, 94)	0.991
Age 65 years or older, median (IQR)	5 (2, 10)	5 (3, 15)	5 (2, 10)	0.595
% of clients served at your SSP by gender category (5 missing)				
Male gender, median (IQR)	60 (51, 69)	60 (50, 65)	60 (54, 70)	0.137
Female gender, median (IQR)	39 (30, 45)	40 (35, 49)	35 (29, 43)	0.019
Transgender, median (IQR)	1 (0, 2)	0 (0, 2)	1 (0, 3)	0.009
% of clients served at your SSP by race category (13 missing)				
American Indian/Alaska Native, median (IQR)	1 (0, 5)	1 (0, 7)	1 (0, 3)	0.264
Asian, median (IQR)	0 (0, 1)	0 (0, 1)	1 (0, 2)	0.033
Black/African American, median (IQR)	5 (1, 15)	2 (0, 10)	9 (2, 20)	0.008
Native Hawaiian/Other Pacific Islander, median (IQR)	0 (0, 1)	0 (0, 0)	0 (0, 1)	0.098
White, median (IQR)	78 (58, 90)	82 (56, 95)	70 (60, 88)	0.221
Other race, median (IQR)	1 (0, 5)	0 (0, 5)	1 (0, 4)	0.987
More than one race, median (IQR)	1 (0, 5)	0 (0, 5)	2 (0, 10)	0.233
% of clients who are Hispanic or Latino, median (IQR) (19 missing)	10 (2, 30)	5 (2, 28)	12 (3, 30)	0.165
% of clients experiencing homelessness, median (IQR) (7 missing)	45 (25, 60)	40 (25, 55)	50 (30, 70)	0.114
Rural or urban setting (4 missing)				
Mostly rural	43 (42.6)	27 (60.0)	16 (28.6)	
Mostly urban	58 (57.4)	18 (40.0)	40 (71.4)	0.002
SSP service delivery model				
Fixed site	86 (81.9)	43 (93.5)	43 (72.9)	0.001
Mobile/street-based	57 (54.3)	15 (32.6)	42 (71.2)	< 0.001
Secondary or peer-delivery	37 (35.2)	8 (17.4)	29 (49.2)	< 0.001

	N (%) or median (IQR)			
Characteristics	**Overall (N = 105)**	**SSPs with vaccinations (n = 46)**	**SSPs without vaccinations (n = 59)**	**P-value[a]**
Delivery	32 (30.5)	11 (23.9)	21 (35.6)	0.209
Who operates your SSP?				
Community-based organization or community coalition	62 (59.0)	14 (30.4)	48 (81.4)	< 0.001
Health department	34 (32.4)	28 (60.9)	6 (10.2)	< 0.001
Substance use treatment or behavioral health facility	11 (10.5)	5 (10.9)	6 (10.2)	1.000
Federally Qualified Health Center, community health center, rural health clinic	7 (6.7)	3 (6.5)	4 (6.8)	1.000
Hospital or health system	6 (5.7)	4 (8.7)	2 (3.4)	0.401
University (non-medical)	3 (2.9)	2 (4.3)	1 (1.7)	0.580

Note. IQR = interquartile range; SSP = syringe services program.

[a]P-values compare SSPs with vaccinations and SSPs without vaccinations.

Table 2

Existing Capacity of Syringe Services Programs (SSPs) to Provide Vaccination Services, June–August 2021.

	N (%)			
Survey Questions	**Overall (N = 105)**	**SSPs with vaccinations (n = 46)**	**SSPs without vaccinations (n = 59)**	**P-value[a]**
How important is it that your SSP provide vaccinations for your clients? (4 missing)				0.005
Not important	2 (2.0)		2 (3.6)	
Somewhat important	32 (31.7)	8 (17.4)	24 (43.6)	
Very important	67 (66.3)	38 (82.6)	29 (52.7)	
How important is providing vaccinations compared with other services offered (needle/syringe exchange, counseling, condoms)? (4 missing)				0.009
Not important	13 (12.9)	1 (2.2)	12 (21.8)	
Somewhat important	55 (54.5)	26 (56.5)	29 (52.7)	
Very important	33 (32.7)	19 (41.3)	14 (25.5)	
SSP has ability to enroll clients in health insurance (11 missing)	40 (42.6)	22 (51.2)	18 (35.3)	0.145
SSP has capacity to submit claims to health insurance for reimbursement (15 missing)	13 (14.4)	11 (28.2)	2 (3.9)	0.002
SSP has sufficient funding to cover the following vaccination supplies				
Vaccine administration supplies (e.g., needles, syringes, alcohol prep pads, adhesive bandages) (8 missing)	62 (63.9)	33 (78.6)	29 (52.7)	0.011
Vaccine education materials (6 missing)	60 (60.6)	36 (83.7)	24 (42.9)	< 0.001
Vaccine storage and handling (e.g., refrigeration, temperature monitoring) (10 missing)	42 (44.2)	31 (73.8)	11 (20.8)	< 0.001
Vaccine doses (15 missing)	31 (34.4)	27 (65.9)	4 (8.2)	< 0.001
SSP has staff who are licensed to administer vaccination (e.g., according to state and local licensing regulations)? (5 missing)	53 (53.0)	41 (91.1)	12 (21.8)	< 0.001
SSP has staff to perform data entry to record vaccinations (2 missing)	80 (77.7)	40 (87.0)	40 (70.2)	0.057
Survey questions only for SSPs with vaccination services				
Which vaccines does your SSP offer?				
COVID-19		42 (91.3)		
Hepatitis A		35 (76.1)		
Influenza (1 missing)		33 (73.3)		
Hepatitis B (2 missing)		31 (70.5)		
Tetanus (e.g., Tdap, Td) (4 missing)		24 (57.1)		
Human papillomavirus (HPV) (3 missing)		19 (44.2)		
Pneumococcal (e.g., PCV13, PPSV23) (5 missing)		17 (41.5)		
Zoster or shingles (3 missing)		16 (37.2)		
From where does your SSP receive vaccines?				
State or local health department		35 (76.1)		
Our SSP is enrolled as a Vaccine for Adults or 317 vaccine provider (federally purchased vaccine)		11 (23.9)		
Direct purchase from manufacturer or distributor		6 (13.0)		
Partnerships with hospital, university, clinic, or health system		6 (13.0)		
Group purchasing organization		1 (2.2)		
Ordered separately by in house pharmacy		1 (2.2)		

	N (%)			
Survey Questions	**Overall (N = 105)**	**SSPs with vaccinations (n = 46)**	**SSPs without vaccinations (n = 59)**	**P-value[a]**
SSP submits vaccine administration data to the state or local immunization information system (1 missing)		38 (84.4)		
SSP can access state or local immunization information system to review clients' vaccination history (3 missing)		34 (79.1)		
SSP has standing orders or nurse-driven protocols for vaccinations (4 missing)		33 (78.6)		
SSP has written protocols on vaccine storage and handling (4 missing)		32 (76.2)		
SSP assesses vaccination history prior to vaccine administration (6 missing)		30 (75.0)		
SSP has a system to follow-up with or send reminders to clients for vaccines that require multiple doses (4 missing)		26 (61.9)		
SSP assesses hepatitis B immune status prior to hepatitis B vaccine administration (8 missing)[b]		16 (69.6)		
SSP receives grants to cover vaccination costs (6 missing)		9 (22.5)		
Survey question only for SSPs without vaccination services				
Do you collaborate with another provider or facility to offer vaccinations to SSP clients at a nearby location?				
Yes, nearby public health department			27 (45.8)	
Yes, nearby clinic			21 (35.6)	
Yes, other			12 (20.3)	
Yes, nearby pharmacy			4 (6.8)	
Yes, mobile van			4 (6.8)	
No			12 (20.3)	

Note. SSP = syringe services program.

[a]P-values compare SSPs with vaccinations and SSPs without vaccinations.

[b]The denominator includes only SSPs that answered "yes" offering hepatitis B vaccine (n = 31)

Table 3

Resource Needs for Syringe Services Programs (SSPs) to Offer Vaccination Services, June–August 2021.

	N (%)			
Survey Questions	**Overall (N = 105)**	**SSPs with vaccinations (n = 46)**	**SSPs without vaccinations (n = 59)**	**P-value[a]**
Which of the following are important resource needs for your SSP to provide vaccinations?				
Better systems to follow-up with clients to complete multiple dose series (e.g., electronic database, reminder-recall) (13 missing)	75 (81.5)	26 (70.3)	49 (89.1)	0.030
Equipment to store vaccine (e.g., refrigerators, temperature monitoring) (11 missing)	64 (68.1)	14 (36.8)	50 (89.3)	< 0.001
Training on how to enroll clients in health insurance (14 missing)	63 (69.2)	20 (58.8)	43 (75.4)	0.107
More vaccine supply (19 missing)	60 (69.8)	15 (42.9)	45 (88.2)	< 0.001
More vaccine administration supplies (e.g., needles, syringes, alcohol prep pads, adhesive bandages) (13 missing)	60 (65.2)	19 (51.4)	41 (74.5)	0.027
Other[b]	26 (24.8)	8 (17.4)	18 (30.5)	0.172
Which resource is the single most important need? (8 missing)				
Better systems to follow-up with clients to complete multiple dose series (e.g., electronic database, reminder-recall)	27 (27.8)	14 (35.0)	13 (22.8)	
Other (as specified above)	20 (20.6)	6 (15.0)	14 (24.6)	
Training on how to enroll clients in health insurance	17 (17.5)	9 (22.5)	8 (14.0)	
More vaccine supply	17 (17.5)	4 (10.0)	13 (22.8)	
Equipment to store vaccine (e.g., refrigerators, temperature monitoring)	12 (12.4)	5 (12.5)	7 (12.3)	
More vaccine administration supplies (e.g., needles, syringes, alcohol prep pads, adhesive bandages)	4 (4.1)	2 (5.0)	2 (3.5)	0.349
Which of the following are staffing needs at your SSP				
More staff who are licensed to administer vaccines (7 missing)	74 (75.5)	23 (54.8)	51 (91.1)	< 0.001
Staff training on how to screen clients for susceptibility and eligibility for different vaccines (5 missing)	74 (74.0)	21 (50.0)	53 (91.4)	< 0.001
Staff training on motivational interviewing and how to address client vaccination questions (8 missing)	67 (69.1)	25 (58.1)	42 (77.8)	0.048
Staff training on how to report vaccination adverse events (10 missing)	67 (70.5)	18 (43.9)	49 (90.7)	< 0.001
Staff training on how to collect, enter and transmit vaccine administration data (6 missing)	62 (62.6)	11 (26.2)	51 (89.5)	< 0.001
Staff training on how to prepare and administer vaccines (8 missing)	62 (63.9)	11 (26.2)	51 (92.7)	< 0.001
Staff training on how to submit to health insurance for reimbursement (12 missing)	62 (66.7)	16 (41.0)	46 (85.2)	< 0.001
Staff training on how to properly store and handle vaccines (10 missing)	58 (61.1)	7 (17.5)	51 (92.7)	< 0.001
More time to administer vaccine during clinic visits (13 missing)	57 (62.0)	22 (52.4)	35 (70.0)	0.091
More data entry staff (12 missing)	51 (54.8)	18 (43.9)	33 (63.5)	0.093
Other[c]	7 (6.7)	3 (6.5)	4 (6.8)	1.000
Which staffing need is the single most important? (10 missing)				
More staff who are licensed to administer vaccines	48 (50.5)	16 (40.0)	32 (58.2)	
Staff training on motivational interviewing and how to address client vaccination questions	14 (14.7)	10 (25.0)	4 (7.3)	
More time to administer vaccine during clinic visits	6 (6.3)	4 (10.0)	2 (3.6)	

	N (%)			
Survey Questions	**Overall (N = 105)**	**SSPs with vaccinations (n = 46)**	**SSPs without vaccinations (n = 59)**	**P-value[a]**
Staff training on how to screen clients for susceptibility and eligibility for different vaccines	5 (5.3)	4 (10.0)	1 (1.8)	
Staff training on how to submit to health insurance for reimbursement	5 (5.3)	2 (5.0)	3 (5.5)	
Staff training on how to prepare and administer vaccines	4 (4.2)		4 (7.3)	
Staff training on how to collect, enter and transmit vaccine administration data	4 (4.2)	1 (2.5)	3 (5.5)	
Other (as specified above)	4 (4.2)	1 (2.5)	3 (5.5)	
Staff training on how to properly store and handle vaccines	3 (3.2)		3 (5.5)	
More data entry staff	1 (1.1)	1 (2.5)		
Staff training on how to report vaccination adverse events	1 (1.1)	1 (2.5)		0.032
Survey question only for SSPs without vaccination services				
What would you need in order to provide vaccinations in your SSP?				
Funding to purchase vaccines			49 (83.1)	
Staff who are licensed to administer vaccinations			46 (78.0)	
Staff who are trained to administer vaccinations			45 (76.3)	
Data systems to support vaccine ordering, tracking, and reporting			41 (69.5)	
Trained staff to oversee storage and handling requirements of vaccines			40 (67.8)	
Access to a discount purchasing mechanism			37 (62.7)	
Funding to purchase vaccine administration supplies			37 (62.7)	
Space (e.g., dedicated refrigerators) to store vaccines			36 (61.0)	
Client demand for vaccinations			32 (54.2)	
Data entry staff to support vaccine ordering, tracking, and reporting			30 (50.8)	
Supportive legal or policy environment to provide vaccination			30 (50.8)	
More time during client visits to provide vaccinations			25 (42.4)	
Other[d]			3 (5.1)	

Note. SSP = syringe services program.

[a]P-values compare SSPs with vaccinations and SSPs without vaccinations.

[b]Other resource needs included staffing (17), funding (4), client factors (3), and partnerships (2)

[c]Other staffing needs included funding (3), political will (2), and partnerships (1)

[d]Other responses included partnerships (1), political will (1), staffing (1), and physical space (1)

Table 4

Staff-Reported Client Barriers for Clients who Decline Vaccination at Syringe Services Programs, June–August 2021.

	N (%)			
How common are the following reasons for clients who decline vaccination? ***Responses for "somewhat common" or "very common"***	**Overall (N = 105)**	**SSPs with vaccinations (n = 46)**	**SSPs without vaccinations (n = 59)**	**P-value[a]**
Client does not have health insurance (15 missing)	50 (55.6)	20 (48.8)	30 (61.2)	0.289
Client has health insurance, but the vaccine is only available for un- or underinsured (28 missing)	14 (18.2)	9 (23.1)	5 (13.2)	0.377
Client is not susceptible (e.g., already vaccinated or already infected) (23 missing)	50 (61.0)	27 (67.5)	23 (54.8)	0.265
Client does not have enough time to get vaccinated (13 missing)	73 (79.3)	37 (88.1)	36 (72.0)	0.073
Client has competing needs of higher priority (e.g., food, clothing, shelter) (9 missing)	92 (95.8)	41 (95.3)	51 (96.2)	1.000
Client expresses concerns about vaccination (e.g., side effects, does not trust vaccine safety, does not trust vaccine manufacturers) (10 missing)	92 (96.8)	41 (95.3)	51 (98.1)	0.588
Client does not feel they are at risk (10 missing)	81 (85.3)	39 (90.7)	42 (80.8)	0.247

[a] P-values compare SSPs with vaccinations and SSPs without vaccinations.