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Impact of the COVID-19 Pandemic on Centers for Disease Control and Prevention–Funded Sexually Transmitted Disease Programs

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Abstract

The COVID-19 pandemic impacted sexually transmitted disease (STD) services. Of 59 US-funded STD programs, 91% reported a great deal to moderate impact from staff reassignment in April 2020, with 28% of respondents reporting permanent reassignment of disease intervention specialist staff. Telemedicine was implemented in 47%. Decreases in STD case reports were reported by most jurisdictions.

The COVID-19 global pandemic, caused by the severe acute respiratory syndrome coronavirus 2,[1] has impacted healthcare systems and exposed resource deficiencies in the public health infrastructure.[2] In March 2020, COVID-19 mitigation efforts led to swift changes in clinical care, leading to disruptions of sexually transmitted disease (STD) service delivery, and in public health efforts, from the shift of STD disease intervention specialists (DISs) to conduct contact tracing of COVID-19 cases.[3–5] These disruptions in STD clinical services and DIS efforts may further exacerbate rising STD rates.[6,7] Before the COVID-19 global pandemic, the Centers for Disease Control and Prevention (CDC) reported rising STD rates for chlamydia, gonorrhea, and syphilis for 6 consecutive years.[8] To address STD prevention and control in the United States, the CDC's Division of STD Prevention funds 59 project areas, including 50 states, 7 cities, and 2 US territories, in the cooperative agreement entitled: Strengthening STD Prevention and Control for Health Departments (STD PCHD).[9] In March and April 2020, as many states implemented stay-at-home orders, project areas expressed challenges with conducting STD prevention efforts to CDC project officers.

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To systematically explore the impact of COVID-19 on STD programs, the CDC developed a survey in December 2020. The Division of STD Prevention invited each of the 59 STD PCHD project areas to participate in an online survey using the Survey Monkey platform to ensure one response per jurisdiction. The online survey asked about the COVID-19 pandemic's impact on human resources, alternative/modified STD clinical services, disease investigation, laboratory services, and STD surveillance. Surveys were completed by the STD Program Director or Manager, with assistance from relevant staff such as DIS, DIS supervisors, surveillance staff, and epidemiologists. Survey responses were collected from December 1, 2020, to January 28, 2021. All 59 STD PCHD recipients responded to the survey (100% response rate). Data were analyzed in SPSS and Microsoft Excel.

This report provides a brief summary of survey findings of STD PCHD project areas' perceived impact of COVID-19 on STD program human resources, STD clinical services, disease investigation, laboratory testing and capacity, and surveillance.

IMPACT OF COVID-19 ON STD PROGRAMS: HUMAN RESOURCES

Reassignment From STD Work to COVID-19 Duties

Most (96% [55 of 57]) STD health department respondents reported that reassignment of STD staff to COVID-19 work had impacted STD program efforts in April 2020, and by October 2020, 95% (53 of 56) of respondents reported continued impact from staff reassignments. The extent of the impact varied among respondents, with 91% (52 of 57) of respondents reporting a great deal to moderate the impact of reassignment in April 2020 and 64% (36 of 56) still experiencing a great deal to moderate the impact of reassignment in October 2020. Of 59 respondents, 33 (56%) reported that they were able to quantify the number of staff reassigned, including temporary and permanent, to COVID-19 work. Collectively, respondents reported that 620 staff (temporary and permanent) were reassigned for COVID-19 work (Table 1). Nearly 41% of reassigned staff were DISs. When asked about staff who were permanently reassigned from STD work to COVID-19 work, 28% (16 of 58) of respondents reported that members of their DIS staff had been permanently reassigned.

IMPACT OF COVID-19 ON STD PROGRAMS: STD CLINICAL SERVICES

STD Testing Prioritization and Telemedicine

Because of COVID-19 impact, guidance on patient or testing prioritization for STDs was released by 78% (43 of 55) of respondents. Telemedicine was implemented by 47% (26 of 55) of STD health department respondents (Table 1). Among those who implemented telemedicine, 31% (8 of 26) of respondents billed other payers for telemedicine services provided from March to October 2020.

STD Testing and Treatment Shortages

Fifty-one percent (27 of 53) of STD health department respondents reported that they experienced shortages in gonorrhea/chlamydia (GC/CT) nucleic acid amplification tests (NAATs; Table 1), and 19% (10 of 53) reported that they experienced shortages in

azithromycin in April 2020. At the time of the survey, 38% (19 of 50) of respondents were still experiencing GC/CT NAAT shortages.

An STD PCHD recipient described some of the challenges when asked about changes that were put into place for alternative STD testing strategies between March and October 2020:

> Patient prioritization due to the test kit shortage. Express visits and self-collection are available in most large STI clinics. We're still struggling to implement mail-order testing and testing through a third-party lab (due to contract/procurement issues) and local DIS have been pulled to COVID so field-based specimen collection is not an option.
>
> — STD PCHD Recipient

IMPACT OF COVID-19 ON STD PROGRAMS: DISEASE INVESTIGATION AND INTERVENTION

DIS Field and Onsite Work

Disease intervention specialist field work discontinued among 53% (28 of 53) of respondents during March–October 2020 (Table 1). Reported DIS fieldwork and onsite safety measures included the following: personal protective equipment, symptom checks at intake, 6 ft of distance, hand sanitizer for clinicians and clients, limited face-to-face time, and field work for letter drop-offs to avoid client contact.

Virtual Partner Services

Most (57% [31 of 54]) respondents reported that they conducted a great deal of DIS partner services virtually between March and October 2020 (Table 1). For syphilis cases, pregnant women of reproductive age remained a priority for DIS partner services in April 2020 when compared with April 2019, with 100% (43 of 43) of respondents deeming that population a priority before and during the COVID-19 global pandemic.

IMPACT OF COVID-19 ON STD PROGRAMS: LABORATORY TESTING AND CAPACITY

Laboratory Disruptions

Nearly half (45% [24 of 53]) of respondents indicated that their high-volume STD laboratories reported disruptions to laboratory testing for STDs because of the COVID-19 global pandemic between March and October 2020 (Table 1). The 3 main reasons identified for these disruptions were reassignment of laboratory staff (81% of respondents [17 of 21]), clinic closures (62% [13 of 21]), and STD laboratory supplies/kits shortages due to COVID testing demands (62% [13 of 21]).

IMPACT OF COVID-19 ON STD PROGRAMS: SURVEILLANCE

Decreased STD Case Reports

Most respondents confirmed that there have been decreases in STD case reports when comparing April 2019 with April 2020. Most respondents (83% [35 of 42]) indicated that the main reasons for decreases in STD case reports included “clinic closures, so not ordering tests,” and “clinic’s patient volume is down, so not ordering as many tests.”

The volume of positive STD test results received via electronic laboratory reporting and paper reporting decreased during the COVID-19 pandemic. Comparing April 2020 with April 2019, there was a 30% decrease overall in the total number of positive STD test results received via electronic laboratory reporting among 29 respondents. Collectively, survey respondents reported a 32% decrease in positive chlamydia results, a 15% decrease in positive gonorrhea results, and a 38% decrease in positive reactive syphilis serologies. Respondents who indicated that they did not implement telemedicine reported a larger decrease in electronic reporting of positive chlamydia and gonorrhea results than those who did implement telemedicine.

Comparing April 2020 with April 2019, 27 respondents reported a 40% decrease overall in the total number of positive STD test results received via paper reporting. Collectively, survey respondents reported a 40% decrease in positive chlamydia results, a 34% decrease in positive gonorrhea results, and a 49% decrease in positive reactive syphilis serologies for paper reporting of STD results.

STRENGTHS AND LIMITATIONS

A strength of our study was that the overall survey response rate was 100%. However, there were some limitations. There were varying levels of responsiveness to each question, as responses to each survey question were not required. Therefore, the denominators for each response are indicated throughout the summary. The survey instrument captured STD case comparisons of April 2020 with April 2019; however, comparisons through the end of 2020 were not assessed because of the survey implementation time frame.

In conclusion, the COVID-19 global pandemic impacted multiple aspects of CDC-funded STD programs. A large proportion of STD program staff, DIS in particular, were reassigned from March to October 2020. For clinical care, many STD programs released guidance on prioritizing patient populations during the COVID-19 pandemic. Some of the STD programs were able to modify STD clinical services by offering telemedicine when stay-at-home orders were executed by local authorities. Telemedicine provided an opportunity to improve access to STD clinical services, somewhat softening the overall impact of COVID-19 on clinical services. However, to continue offering telemedicine services, programs will need regulatory agencies and insurance providers that allowed billing during the COVID-19 pandemic to extend that provision or permanently adopt it in the future.

Before the COVID-19 pandemic, the CDC reported rises in STD rates for 6 consecutive years.[8] Disruptions to laboratory testing for STDs and reassignment of laboratory staff

among high-volume STD testing laboratories was reported from March to October 2020. In addition, reporting of STD cases was substantially reduced in April 2020 compared with April 2019. However, preliminary data suggest that case reports increased for all of 2020 compared with 2019, at least for some diseases.[10] Overall, the COVID-19 pandemic drastically reduced staff available in STD programs, especially DIS, interrupted access to STD clinical services, STD testing materials and treatment medications, decreased laboratory capacity and staff for STDs, and reduced STD surveillance activities among CDC-funded STD programs. The impact of this on at-risk populations remains to be seen; monitoring trends in the sequelae of STDs over the coming years may give an indication of the potential harm and disruption on STD services experienced from the COVID-19 pandemic.

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TABLE 1.

Impact of COVID-19 on STD Programs, March to October 2020

	Total No. Staff Reassignments Reported (%)
Reassignment from STD work to COVID-19 duties	
STD program director or manager	40 (6.5)
STD DIS staff	252 (40.6)
STD epidemiology staff	57 (9.2)
STD surveillance staff	48 (7.7)
STD informatics staff	21 (3.4)
Other STD program staff	202 (32.6)
Total staff reassigned	620 (100)
	No. Respondents Reporting Issue/No. Respondents (%)
STD testing prioritization and telemedicine	
Guidance on patient or testing prioritization	
Yes	43/55 (78.2)
No	12/55 (21.8)
Telemedicine implemented	
Yes	26/55 (47.3)
No	21/55 (38.2)
Not sure	8/55 (14.5)
STD testing and treatment shortages	
GC/CT NAAT shortages in April 2020	
Yes	27/53 (50.9)
No	24/53 (45.3)
Not sure	2/53 (3.8)
DIS field work	
DIS field work continued	
Yes	25/53 (47.2)
No	28/53 (52.8)
Virtual partner services	
Extent DIS partner services conduct virtually	
A great deal	31/54 (57.4)
Considerably	12/54 (22.2)
Moderately	6/54 (11.1)
Slightly	1/54 (1.9)
Not at all	4/54 (7.4)
Laboratory disruptions	
High-volume STD laboratories reported disruptions to laboratory testing for STDs	
Yes	24/53 (45.3)
No	29/53 (54.7)
Decreased STD case reports (comparing April 2019 with April 2020)	
Chlamydia	

Yes	43/53 (81.1)
No	6/53 (11.3)
Not sure	4/53 (7.6)
Gonorrhea	
Yes	34/53 (64.1)
No	16/53 (30.2)
Not sure	3/53 (5.7)
P&S syphilis	
Yes	35/53 (66.0)
No	16/53 (30.2)
Not sure	2/53 (3.8)