Article DOI: https://doi.org/10.3201/eid2709.204577

Patterns of Virus Exposure and Presumed Household Transmission among Persons with Coronavirus Disease, United States, January–April 2020

Appendix 1

COVID-19 Case Investigation Form

Reporting jurisdiction:	Case state/local ID:	
Reporting health department: _	CDC 2019-nCoV ID:	
Contact ID a:	NNDSS loc. rec. ID/Case ID b:	

a. Only complete if case-patient is a known contact of prior source case-patient. Assign Contact ID using CDC 2019-nCoV ID and sequential contact ID, e.g., Confirmed case CA102034567 has contacts CA102034567 -01 and CA102034567 -02. b. For NNDSS reporters, use GenV2 or NETSS patient identifier.

Interviewer information Name of interviewer: Last _____ Affiliation/Organization: Telephone _____ Email Date of interview: _____(MM/DD/YYYY) Date of medical chart abstraction: (MM/DD/YYYY) Data sources used for this form? ☐ Case-patient interview ☐ Other interview, specify relationship to case:_____ Medical Chart Abstraction Case-patient's primary language: Was this form administered via a translator? Yes No Unknown Case-patient demographic information 1. Report date to CDC (MM/DD/YYYY): ____/___ 2. Under what process was the case first identified? (check all that apply): PUI/sought care for acute illness \(\subseteq \) Contact tracing of case patient \(\subseteq \) Surveillance system, please ☐ EpiX notification of travelers; if checked, DGMQID ☐ Unknown ☐ Other, specify:_____ 3. Date of birth (MM/DD/YYYY): ____/____ Age units: ☐ Years ☐ Months 4. Age: ☐ Days ☐ Male ☐ Female ☐ Other ☐ Unknown 5. Sex: 6. Ethnicity: ☐ Hispanic/Latino ☐ Non-Hispanic/Latino ☐ Not specified 7. Race (check all that apply): White Asian ☐ American Indian/Alaska Native □ Black ☐ Native Hawaiian/Other Pacific Islander \square Unknown ☐ Other, specify: 8. County of Residence:___ State of Residence:_____ 9. Country of Residence: ☐ United States ☐ Other, specify_____ 10. Occupation: If student, what grade level? If child, does s/he attend day care? ☐ Yes □No Unknown Travel history 11. In the 14 days prior to illness onset, were you traveling away from your home internationally? ☐ Yes ☐ No ☐ Unknown

	the 14 days prior to ill ited States?	ness onset, wer	e you tra	veling away fi	rom your ho	ome within the			
		□ Unknown							
	nere did you travel 14	days prior to il	lness onse	et (list <u>ALL</u> lo	ocations, inc	cluding overnight			
trar	nsits and layovers)?				ъ.				
	Departure Date	Departure city		Arrival		Arrival city,			
Trin	(MM/DD/YYYY)	state/province	/country	(MIM/L)	D/YYYY)	state/province/count			
Trip									
Trip									
$\frac{1}{2}$									
Trip									
3									
Trip									
4									
Trip									
5									
CO End 15. Rela (spe 16. Exp Cru	the 14 DAYS prior to VID-19 case-patient? Yes	own Date In the Interval of th	Range: Stange: Stange: Stange: Stange: Cange Stange: Stange Stang	art Date (MM apply): y	/DD/YYYY nd □ HCW Other :	Y)V □ Co-worker			
	17. In the 14 DAYS prior to illness onset, did you:								
Expos	Sure		Answer			Date Range			
	e any household men		☐ Yes	□ No □ U	Inknown				
	intances, or co-worke								
	or respiratory sympto	ms (e.g.							
	, sore throat etc.)?								
	re close contact (e.g. c	•	☐ Yes	□ No □ U	nknown				
_	ing with, or touching)	with any ill							
person	ns?								

attend a mass gathering (e.g., religious event, wedding, party, dance, concert, banquet, festival, sports event, or other		☐ Yes ☐ No ☐ Unknown	
event)?	event, or other		
use public transportat	tion (bus, train,	☐ Yes ☐ No ☐ Unknown	
airplane)?	1 1 1	DV DV- DIJ	<u> </u>
attend or work at a sc		☐ Yes ☐ No ☐ Unknown	
have a household me attended school or dayc		☐ Yes ☐ No ☐ Unknown	
have close contact (e. speaking with, or touch	-	☐ Yes ☐ No ☐ Unknown	
person who had contact	— ·		
19 patient (i.e., seconda			
confirmed case)?			
have close contact (e.		☐ Yes ☐ No ☐ Unknown	
speaking with, or touch		If yes where did the person	
person who had a fever respiratory illness and in		travel:	
travel in the past 2 week			
traver in the past 2 week			1
18. In the 14 DAYS prio	r to illness onset,	did you:	
Exposure	Y/N/Unk	Facility type (Select all that apply) Date(s) exponential occurred	sure
Work in healthcare setting:	☐ Y ☐ N ☐ Unk If yes, what was your role: ☐ Physician ☐ Nurse ☐ Administration staff ☐ Housekeeping ☐ Patient transport ☐ Other, specify		
Volunteer in healthcare setting	Y N Unk	☐ Hospital ☐ Dialysis ☐ Urgent Care unit/center ☐ Doctor's ☐ Long Term office/clinic Care Facility ☐ Other (specify)	
Have direct patient contact	☐ Y ☐ N ☐ Unk	☐ Hospital ☐ Dialysis ☐ Urgent Care unit/center ☐ Doctor's ☐ Long Term office/clinic Care Facility	

					☐ Other (specify)		
Visit healthcare setting as a patient (not just for this illness)	YN	Unk	☐ Hospita ☐ Urgent ☐ Doctor office/clin	Care 's	☐ Dialysis unit/center ☐ Long Term Care Facility ☐ Other (specify)		
Visit healthcare setting for any reason other than as a patient	Y N	Unk	☐ Hospita☐ Urgent☐ Doctor☐ office/clin	Care 's	☐ Dialysis unit/center ☐ Long Term Care Facility ☐ Other (specify)		
Contact with a known COVID-19 case-patient in a healthcare setting	☐ Y ☐ N ☐ If yes, as a ☐ Patient ☐ Visitor ☐ HCW	Unk	☐ Hospita☐ Urgent☐ Doctor office/clin	Care 's	☐ Dialysis unit/center ☐ Long Term Care Facility ☐ Other (specify)		
anyone with at least	lege dormitory Inknown In total resided this interview (Interview one overnight overwiew. If patient	in your excludi stay du t belong	household (ng you)? ring the 14 as to multipl	(HH) fr		to illn er is	ness
HH (if case-patient belongs to >1 HH)	Relation to patient	Sex M/F	Age (specify unit as years, months, or days)	fever (e.g. o the <i>I</i> illi pati	household member hor respiratory sympt cough, sore throat, etc. 4 days prior to patientess onset, during the ent's illness, or 14 defter patient's illness?	oms c.) in nt's e ays	Date of illness onset of household member (MM/DD/Y YYY)
□ A □ B □ C □ A □ B □ C				□ Y □ Y	□ N □ Unk □ N □ Unk		,
□ A □ B □ C □ A □ B □ C □ A □ B □ C				☐ Y ☐ Y ☐ Y	□ N □ Unk □ N □ Unk □ N □ Unk		
□ A □ B □ C □ A □ B □ C				□ Y □ Y	□ N □ Unk □ N □ Unk		

Symptoms									
21. If symptomatic, onset date o	f first s	ympton	n (MM	/DD/\	YYYY)	:/		ĺ	
Unknown ☐ Asymptomat									
22. If experienced symptoms, ar		☐ Still	sympto	omatic	: 🗆 U	nknown sympto	m status 🔲	ĺ	
Symptoms resolved	_	_			_	7 1			
If symptoms resolved, date of	of symp	tom res	solutio	n (MM	I/DD/Y	YYY):/	/		
Unknown date	• •			,		,			
23. During this illness, did you of	experie	nce any	of the	follov	ving syı	mptoms?			
Symptom					Sympt	tom			
Fever ≥100.4F (38C)	□Ye	s □No	U	nk	Cough	(new onset or	□Yes □	No	□Unk
					worse	ning of chronic			
					cough))			
Highest temp°F					Dr	У	□Yes □	No	□Unk
Date of onset					Pro	oductive	□Yes □	No	□Unk
(MM/DD/YYYY)									
/									
Duration of fever ≥100.4F						oody sputum	□Yes □	No	□Unk
(38C) (days)					•	ptysis)			
Subjective fever (felt	□Ye	s □No	U	nk		ess of breath	□Yes □	No	□Unk
feverish)					(dyspn				
Chills	□Ye				Wheez			No	□Unk
Fatigue	□Ye				Chest			No	□Unk
Muscle aches (myalgia)	□Ye					ninal pain		No	□Unk
Rash	□Ye				Vomit		+ — — —	No	□Unk
Headache	□Ye				Nause			No	□Unk
Eye redness (conjunctivitis)	□Ye	s □No	U	nk	Diarrh	`	□Yes □	No	□Unk
						looser than			
						l stools/24hr			
D (1: 1)				1	period	,			
Runny nose (rhinorrhea)	⊔¥е	s □No	<u></u> □U:	nk		Feeding/Poor	□Yes □	No	∐Unk
Comp themset		~ ¬N-		1-	appetit		DVac D	NI o	
Sore throat	□Ye			nk	Seizur			No No	Unk
Other, specify:	□Ye	s \[\sum No	<u> </u>	nk	Otner,	specify:	☐Yes ☐	No	□Unk
Past medical history						_	_		
24. Do you have any pre-existing n	nedical	conditio	ns?			l	☐ Yes ☐ No		
Unknown				1					
Chronic Lung Disease		□Yes	□No	□Unl	known				
Asthma/reactive airway diseas	e	□Yes	□No	□Unl	known				
Emphysema/COPD		∐Yes	□No	□Unl	known				
Other chronic lung disease		Yes	□No	□Unl	known		(If YES,	spec	ify)
Active tuberculosis		□Yes	□No	∐Unl	known				

Diabetes Mellitus	□Yes	□No	□Unknown	
Cardiovascular disease	□Yes	□No	□Unknown	
Hypertension	∐Yes	□No	□Unknown	
Coronary artery disease	∐Yes	□No	□Unknown	
Heart failure/Congestive heart	□Yes	□No	□Unknown	
failure				
Cerebrovascular accident/Stroke	□Yes	□No	□Unknown	
Congenital heart disease	□Yes	□No	□Unknown	
Other	∐Yes	□No	□Unknown	If YES, specify <u>:</u>
Renal disease	∐Yes	□No	□Unknown	
Chronic kidney disease/insufficiency	□Yes	□No	□Unknown	
End-stage renal disease	□Yes	□No	□Unknown	
Dialysis	∐Yes	□No	□Unknown	
Other	□Yes	□No	□Unknown	If YES, specify:
Liver disease	□Yes	□No	□Unknown	
Alcoholic hepatitis	□Yes	□No	□Unknown	
Chronic liver disease	□Yes	□No	□Unknown	
Cirrhosis/End stage liver disease	□Yes	□No	□Unknown	
Hepatitis B, chronic	□Yes	□No	□Unknown	
Hepatitis C, chronic	□Yes	□No	□Unknown	
Non-alcoholic fatty liver disease (NAFLD)/NASH	□Yes	□No	□Unknown	
Other	□Yes	□No	□Unknown	If YES, specify:
Immunocompromised Condition	□Yes	□No	□Unknown	
HIV infection	∐Yes	□No	□Unknown	
AIDS or CD4 count <200	□Yes	□No	□Unknown	
Solid organ transplant	□Yes	□No	□Unknown	
Stem cell transplant (e.g., bone marrow transplant)	□Yes	□No	□Unknown	
Cancer: current/in treatment or	□Yes	□No	□Unknown	
diagnosed in last 12 months	□V.s.s			IF VEC and all firm
Other	□Yes	□No	□Unknown	If YES, specify:
Immunosuppressive therapy	□Yes	□No	□Unknown	If YES, specify:

	ı	1		T
				For what condition:
Neurologic/neurodevelopmental disorder	□Yes	□No	□Unknown	If YES, specif
Other chronic diseases	□Yes	□No	□Unknown	If YES, specif
 25. Current height: (inches) 26. Current weight: (pound) 27. If female, are you currently pregnated No ☐ Unknown 28. If female, are you postpartum (≤6 v) 29. If female, are you breastfeeding? ☐ 30. If child, is he/she being breastfed? 	ls) OR nt? [weeks p Yes [Yes ostpart No	(kg) Weeks pregr um)? □ Yes] Unknown	
31. Do you currently smoke cigarettes? If yes, how many packs of cigarettes? 32. Have you ever smoked cigarettes? If yes, how many packs of cigarette long since you last smoked a cigarette long since you last smoked a cigarettes/v 33. Do you currently use e-cigarettes/v 34. In the past year, how often did you □ Never □ Monthly or less □ 2-4 times per week	es per da Yes es per da ette?ape-per have a	ay? s □ No ay? _(m) 1? □ Y drink o	For how D Unknown For how (y) Yes No sontaining alc	many years? How Unknown ohol?
/(MM/DD/ Emergency room Date 1: _	nt asympormal?is illnesss?for the illow seeks in con/YYYY)	Iness?	tic) U Yes U Yes U Yes Ster this illnes box] (MN	No ☐ Unknown ☐ No ☐ Unknown ss started (check all that M/DD/YYYY) Date 2:
/(MM/DD/ Retail store/pharmacy	Oate 1: _		//_	(MM/DD/YYYY) Date

☐ Health department	Date 1:/ _(MM/DD/YYYY)		IM/DD/YYYY)	Date 2:
Urgent care	Date 1:/_	/(N	IM/DD/YYYY)	Date 2:
☐ Telephone triage lin	ne Date 1:/	/(N	IM/DD/YYYY)	Date 2:
☐ Other			IM/DD/YYYY)	Date 2:
39. Was the patient hospita hospitalization section Purpose: Clinical in health)	below If no, skip to	Question #53		
rita and the literation				
Hospitalization 40. Hospital name: phone: 41. If yes, Admission date (MM/DD/YYYY) □ Particular P	1/ (MM/I	DD/YYYY) , dis		
42. To where was the patient Home Trans Other 43. If hospitalized more that discharge dates:	nt discharged? sferred to another hos □ Unknown an once, please enter t	pital ☐ Nursing	talization's adm	ission and
Hospital name: phone: Admission date 2 2// Patient still hospitali 44. To where was the patient Home Trans	// (MM/DD/YYYY) zed nt discharged?	(MM/DD/	YYYY) I	Discharge date
Other	Unknown			
45. First recorded vital sign(systolic) /	_	(Unit: □ °F / □	°C) Blood pr	ressure:
Heart rate:	, , , , ,			
O2 Sat:	(Type of suppor	t required when	O2 saturation v	vas measured:
☐ Room Air ☐ Nasal on Invasive mechanical ven ☐ Other, specify: ☐ Uharding Fraction of Inspired Ox ☐ NA	itilation Jnknown		_	

46.	First recorded labora	tory values for:		T	r	
		Date				
		(MM/DD/Y	YYY)	Value	Unit	
	White blood cell				☐ Cells x 109/L	□ x 1 000/μL
	(WBC) count					
	Absolute				☐ Cells x 109/L	
	neutrophil count				☐ Cells X 109/L	∐ Χ Ι 000/μι
	Absolute					□ v 1 000 /ul
	lymphocyte count				☐ Cells x 109/L ☐ Other:	□ x 1 000/μL
	Platelets (Plt)				☐ Cells x 109/L ☐ Other:	∐ x 1 000/μL
	Aspartate				□ U/L □ IU/L	☐ Other:
	transaminase (AST)					_
	Alanine					☐ Other:
	aminotransferase					□ Oulci.
	(ALT)					
	· · · · · · · · · · · · · · · · · · ·					
	Lactate				\square U/L \square IU/L	☐ Other:
	dehydrogenase (LD	H)				
47.	Was the patient adm	itted to an intensi	ve care	unit (ICU)?	☐ Yes	□No
	☐ Unknown					
	ICU admission date				D/YYYY)	ICU discharge
	date 1/_	/(N	MM/DD	VYYYY)		
	ICU admission date	2/	/	(MM/D	D/YYYY)	ICU discharge
		/(N				
48.	During hospitalization	on, did the patient			T . D .	m . 1 D
			Start 1		Last Date	Total Days
	Cumulamantal		(IVIIVI/	DD/YYYY)	(MM/DD/YYYY)	
	Supplemental Oxygen?	□ Y □ N □ Unk				
	BiPap or CPAP					
	use?	Unk				
	High flow nasal					
	cannula?	Unk				
	Invasive	□Y □N □				
	mechanical	Unk				
	ventilation?					
	ECMO?	\square Y \square N \square				
		Unk				
!	-					
	Did the patient receive	ve a discharge dia	agnosis	of pneumonia	a (refer to clinical di	scharge
	summary)?					
	Yes □ No	☐ Unknow				

50. Did the patient receiv (refer to clinical discl		_	_	icute re	spiratory distre	ess syndi	rome (ARDS)	
☐ Yes ☐ No	_		nown						
51. Clinical Discharge D				rge Co	des				
Clinical Discharge					-CM Code				
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									
2. Did the patient receiv	e any an	tivira							
Medication			Dose Fre	quency		Last D		Total	
					(MM/DD/	(MM/		Days	
					YYYY)	YYYY	Y)		
	_	20							
Dame da sirvin		V							
Remdesivir		<u>M</u>							
Other:		90 V							
Ouler	_ _	M							
		20							
Other:									
Other.		M							
		.171							
maging									
53. Was a chest x-ray tak	on?	Vac	\square No		lznoven				
54. Were any of these ch						nknown			
Date of first abnorma	-			,	(MM/DD/Y				
55. For first abnormal ch				_/ nat_ann	`		Report	not	
available:	CSt X Tay	, pice	ase check an a	тас арр	ıy.		Кероп	inot	
Air space density			Cannot rule		ARDS (acute		Othe	r	
in space density			out		respiratory			-	
			pneumonia		distress				
			1		syndrome)				
Air space opacity			Consolidatio	n \square	Lung infiltrat	е 🗆	Pleur	al	\sqcap
							Effus	sion	
	•		Cavitation		Interstitial		Emp	vema	
Bronchopneumonia/pne	umonia		Cavitation		mersuua	_	Linp.	y Cillu	

57. Were any of these chest CT/M						1			
Date of first abnormal CT/MF 58. For first abnormal chest CT/M					`	t not	available:		
Air space density		distre	e ratory		Empyema		Englarge epiglottis		
Air space opacity/opacification		Lung			Pneumothorax		Tracheal narrowing		
Bronchopneumonia/pneumonia		Inters			Pneumomediastinum		Ground glass opacities		
Consolidation		Loba infilt			Widened mediastinum		Other		
Cavitation		Pleur effus							
Lab Results 59. SARS-CoV-2 Testing (Please	repo	ort furt	her test re	esult	s in comments)				
Date of sample collection (MM/DD/YYYY)	ction		Sample Type				Result		
			☐ NP ☐ OP ☐ Sputum ☐ Other, specify:				☐ Pos ☐ Neg ☐ Inconclusive		
			☐ NP ☐ OP ☐ Sputum ☐ Other, specify:				☐ Pos ☐ Neg ☐ Inconclusive		
			☐ NP ☐ OP ☐ Sputum ☐ Other, specify:				☐ Pos ☐ Neg ☐ Inconclusive		
			☐ NP ☐ OP ☐ Sputum ☐ Other, specify:				☐ Pos ☐ Neg ☐ Inconclusive		
					P ☐ OP ☐ Sputum her, specify:		☐ Pos ☐☐ Inconclu	_	
60. Was patient tested for other viresults below) □ No □ U		espirat Iown	ory patho	gen	s during their illness?] Ye	s (report		
Positive		legativ	e Not Tested Unkno		Collection Date (MM/DD/YYY)		pecimen ype		
Flu A/H1	<u> </u>	<u> </u>			//	+			
Flu A/H3		<u> </u>	+		//	-			
Flu (no type)		<u>-</u>]	$+ \exists -$			+			

Respiratory syncytial virus/RSV				//		
Adenovirus				/ /		
Parainfluenza virus 1				/ /		
Parainfluenza virus 2				//		
Parainfluenza virus 3				//		
Parainfluenza virus 4				//		
Respiratory syncytial				//		
virus/RSV						
Human				//		
metapneumovirus						
Rhinovirus/enterovirus				//		
Human coronavirus 229E				//-		
Human coronavirus HKU1				//-		
Human coronavirus NL63				//		
Human coronavirus OC43				//		
If yes, was there a pos ☐ Unknown If yes, specify pathog If yes, specify date of	en:				□ N	
If yes, site where path	ogen iden	tified: □Bl	ood □Spu	ıtum 🔲 Bron	ichoalveolar	lavage
(BAL) □Endotrache	•					
☐ Cerebrospinal fluid		-	· ·			
If more than one bact	erial cultui	re test was j	performed, p	blease record	in additional	comments.
Outcome 62. Did the patient die as Yes, Date: Where did the death of Other, specify (If the following infordeath certificate or de Contribution of COV No contribution to de Was autopsy perform	rmation is ath note in ID-19 to dath \square Un	(MM/D lome [not current n hospital re eath Un	D/YYYY) Hospital ly available, ecord.) derlying/pri		_	er using
Unknown	- =		L	_ = · ×		

Primary Cause of death (
.ny additional comments or	notas?		

This is the end of the case investigation form. Thank you very much for your time. If you have any questions please feel free to contact the CDC at 770-488-7100 or eocreport@cdc.gov