

Draft Smallpox Guide A: Appendix 16

Using Forms and Worksheets for Contact Identification, Tracing, Vaccination, and Surveillance

A set of worksheets and forms has been developed with input from smallpox experts, surveillance experts, and staff with expertise in contact tracing, to assist with contact-related activities, including contact identification, tracing, vaccination, and surveillance. This appendix describes the forms and worksheets in more detail, including their use and interrelated applications. A flow diagram showing how the forms inter-relate and how data from the forms is managed is provided (figure 1).

A. Contact identification

Identified cases will be interviewed using Form 2A (Smallpox Case Travel/Activity Worksheet) and Form 2C (Smallpox Case Transportation Worksheet).

Form 2B (Smallpox Primary Contact/Site Worksheet) is completed using information from Forms 2A and 2C. Form 2B will be used by the supervisor for prioritizing the assignment of contacts for contact tracing.

The interviewer initiates a Form 2D-(Smallpox Contact Tracing Form) *for each* of cases' household member *and each* primary contact listed on Form 2B. Form 2D consists of the original and two copies (NCR form) and has a unique identification number (located at the lower right corner). The case interviewer completes Items 1-23 and Item 28 only on Form 2D.

Case investigators return Forms 1, 2A, 2B, 2C for each case investigated and Form 2D (original and two copies) for each case household contact and other primary contact to their supervisors at the State Coordination Center Supervisor as soon as possible. The supervisor(s) are responsible for getting Form 1, Form 2B and all Forms 2D entered thereby creating a case file.

Forms 2A – 2C contains questions to identify household and nonhousehold contacts and asks the case to designate duration of exposure for nonhousehold contacts if that information is available. Names of household and nonhousehold contacts should be listed on Form 2B.

The interviewer should obtain as much locating information as possible (e.g., names, addresses, and telephone numbers) for every person with whom the case had known face-to-face contact following the onset of fever. The case should be questioned as to what they did and who they saw each day; beginning with the day their fever began. Care should be taken to include specific questions (e.g., work-related activities, social activities; e.g., “Whom did you have lunch with that day?”) in the interview that may help the patient remember contacts.

Form 2 A will serve to provide detailed information on places visited since fever onset and to determine sites where unknown persons are likely to be exposed to an infectious case.

If time/personnel constraints permit or if the patient is unable to answer questions because of illness, interview the patient’s family, close friends, and work associates to provide case’s contacts and travel history since onset of fever. If only contacts in one state are involved, give all the information obtained to the designated supervisor responsible for organizing tracing, interviewing, and surveillance of contacts. The names of the contact and household members of contacts should be provided to contact tracers or teams responsible for completing contact information on Form 2D and vaccination of contacts. If out-of-state contacts or places of travel (Form 2C) are identified, give the information to the designated supervisor responsible for notifying other states and jurisdictions.

B. Contact tracing and vaccination

The supervisors at the State Coordination Center are responsible for organizing and monitoring all contact tracing, surveillance and related activities. Therefore, a supervisor will maintain a listing of contacts derived from Forms 2B and 2D to be organized by Contact Priority Categories as designated in each contact’s Form 2D. The supervisor will assign contact tracers to find and interview contacts starting with those contacts in the highest category (category 1) and, depending on resources, followed sequentially by contacts in categories 2 through 5.

The number of case household members and other primary contacts to be traced and put under surveillance and the number of primary contact household members (secondary contacts) on which surveillance is instituted and Form 2D completed depends heavily upon the resources available in terms of trained contact tracing personnel, program commitment to contact tracing, vaccination and surveillance as a priority activity, and other resources such as transport, data enterers, telephone and computer equipment and their support and telephone interviewers. It is likely that even in a small to moderate outbreak of disease dozens to

hundreds of personnel need to be trained and involved in all aspects of contact tracing, surveillance and follow up.

Contact tracers will start out with the partially completed Form 2D, (original and one copy), for each case household member and primary contact. The information in this Form 2D will be used to locate the contact. Contact tracers may need to seek additional information to locate the contact from other sources such as workplace or school sites, reverse phone directories, contact family and friends, voting lists, neighborhood visits, etc. The tracers will interview the contact and also determine if other primary contacts exist that may not have been listed by the case. At the end of the interview and upon observing the contact, the tracer will determine a 'disposition' for the contact (2D, Item 39. Disposition) and will take the necessary actions where indicated.

Tracers should refer case household members and other primary contacts to a smallpox vaccination site/clinic for vaccination. Tracers should immediately notify their supervisor if a primary contact has had a fever $\geq 101^{\circ}\text{F}$ for two days or the tracer observes a rash (an epidemiologist will be dispatched to evaluate if this is a suspect case). Contacts who become suspect smallpox cases are then assigned a unique Smallpox Case ID (Form 2D, Item 40) and a Form 1 is completed by the epidemiologist or case interviewer and the patient transferred to an appropriate isolation facility.

The original of Form 2D should be returned to the supervisor. A copy of Form 2D should be provided to the contact to be taken with him/her to clinic as a 'ticket' to receive a vaccination. There, the Form 2D Number will be recorded with the vaccination number and linked to the individual contact's tracing data as evidence of receiving a vaccination. The tracer will then initiate Form 2 E and Form 2 F.

In the event that a case household member or a primary contact cannot be located, has moved, or has died those 'dispositions' should be noted on Form 2D which is returned to the supervisor. Contact tracers should directly notify supervisors of those who have moved and where so that the supervisor can notifying other jurisdictions (within or outside of the state).

C. Surveillance (monitoring) of health status and vaccine "take" of contacts

Surveillance is conducted for early signs of smallpox disease (fever on 2 consecutive days and/or rash) and for vaccine "take." Contacts are provided with a health department phone number to call if they develop any of the severe vaccine adverse reactions described on the Vaccine

Information Statement. Ideally, and if resources are available, primary contacts who do not have fever or rash at the time of interview should remain under active surveillance for 21 days after their last contact with the smallpox case, or 14 days following successful vaccination.

The contact tracer will establish methods for daily reporting with the contact including methods for daily tracking if the contact does not have access to a home telephone. If adequate resources are lacking, grantees may decide on a combined active and passive system for surveillance of primary contact symptoms and primary and household contacts adverse events from vaccination composed of a household diary maintained by the contact household (Form 2E), instructions and telephone arrangements for household to report symptoms of disease, vaccine “take,” or serious adverse events, and a public health based telephone system to receive such calls, as well as actively telephoning the households at least once around the 5th to 7th day after the household vaccinations to obtain information on the status of the vaccination take, symptoms in primary contact and any adverse events from the date of vaccination until day 7. *If there is no evidence of vaccine reaction or “take” at day 5 to 7, the contact should be revaccinated.*

Each primary contact household should be left with a form for surveillance for illness and vaccine take (current Form 2E) and one or more household members instructed on how to maintain and complete the form. Families should be advised to obtain a thermometer; state health departments may choose to provide them or provide guidance on thermometer purchase. One or more household members should also be provided with a health department phone and number and instructions to call that number if the primary contact develops a fever of 101°F for greater than 1 day or rash, or if the primary contact or any other the household contacts have a moderate or severe adverse reaction to the vaccination. Contacts are provided with a health department phone number to call if they develop any severe vaccine adverse reactions.

If the number of contacts exceeds the capabilities of contact tracing to provide rapid identification and interviewing of contacts, state and federal health authorities may, in addition to identifying face-to-face contacts, identify presumptive contacts based on determining locations and times where the case was present following onset of fever. This addition should only be implemented by the State Health Officer after consultation with federal health authorities and only if limited personnel resources and the size of the outbreak do not permit effective institution of the standard procedure.

Data entry for all forms [Case investigation forms (Forms 1, 2A-2C) and all contact tracing forms (Form 2D) and surveillance forms (Form 2E)] will be conducted at the designated State Coordination Center. Depending on the size of the outbreak and the geographical distribution of the cases, there may be more than one State Coordination Center dedicated to the response.