

02-08

STATEMENT OF POLICY

Smallpox Response

Policy

A strong local public health infrastructure is vital to prepare for and respond to a smallpox case or outbreak. To achieve that infrastructure, the National Association of County and City Health Officials (NACCHO) asserts the following:

- Federal and state policy development and planning processes related to smallpox must help support, solicit, and include the full participation of local health departments.
- Policies and planning must reflect the needs and realities of a response at the local level.
- Public Health Emergency Preparedness (PHEP) funding that goes through the states must be directed at developing adequate local and sub-state regional¹ infrastructure, including surge capacity and training specific to smallpox vaccine administration, as needed, to assure sufficient numbers of trained personnel necessary for response to smallpox.
- Community partners and first responders must be included in developing local and sub-state regional preparedness plans. PHEP funding should include support for such plans to be tested and drilled in non-emergency situations.
- Federal and state emergency preparedness program development and planning processes, including those for communications, must recognize that local health departments play an essential role in linking the community's medical/hospital resources with the emergency response system. Coalition funding including PHEP and Hospital Preparedness Program (HPP) should support the local public health infrastructure to assure such linkages and to make available training opportunities that are necessary to create, sustain, and strengthen them.
- Law enforcement agencies, particularly those at the federal level, should fully involve local health departments in “crime scene investigations,” or forensic epidemiology, related to smallpox-caused outbreaks.
- PHEP and HPP funding should support opportunities for federal, state, and local law enforcement officials to train collaboratively with their public health, first responder, healthcare coalitions and medical counterparts to investigate such crimes.
- Communications processes implemented by federal agencies during outbreaks must assure that state and local health officials are regularly and fully informed in a timely manner. In addition, responding health agencies must have agreed-upon and practiced protocols for how communications will be directed by which officials and to which professional and population groups.
- Federal, state, and local plans must address actions needed for preventing, controlling, and responding to outbreaks caused by smallpox. The protocol should include both epidemiological investigation to determine the populations that require medical



countermeasures and infection control strategies to prevent the continued spread of disease while mass dispensing smallpox medical countermeasures (including the use of social distancing, isolation and quarantine, and personal protective equipment recommendations for responders and the affected population).

- Federal, state, and local plans should also include surge considerations for the management of vaccine-associated adverse events and any systems developed to track and report vaccine-associated adverse events.
- Federal agencies should develop additional guidance for state and local health departments to leverage military partnerships and expertise for training and planning purposes to increase local surge capacity to administer smallpox vaccine and manage vaccine-associated adverse events.
- Provisions must be made to immunize all appropriate local public health and other first responder and medical staff who are not pre-immunized pursuant to Advisory Committee on Immunization Practices (ACIP) recommendations as soon as possible after the first diagnosis of disease caused by smallpox. Consideration should also be given to procedures for rapid immunization of the household contacts of local public health, first responder, and medical staff as plans are developed.

NACCHO concurs with the ACIP recommendations regarding smallpox vaccination in a pre-event setting,^{2,3} predicated on ACIP's assertion that the threat of a smallpox attack is low. If the threat assessment should change, these recommendations must be promptly reevaluated.

NACCHO also concurs with the Centers for Disease Control and Prevention (CDC) clinical guidance recommendations for the use of smallpox vaccine in a post-event setting, which includes recommendations for smallpox vaccine usage in consideration of the risk for smallpox infection, risk for an adverse event following vaccination, and potential benefit from vaccination.⁴

NACCHO asserts that there is still a need for smallpox medical countermeasure (MCM) guidance to address the safe and appropriate use of smallpox antivirals that would be made available through the Strategic National Stockpile (SNS) during a smallpox response.

Justification

Smallpox is a serious, contagious, and sometimes fatal infectious disease. Historically, variola major, the severe and most common form of smallpox, has an overall fatality rate of about 30%.⁵ Routine smallpox vaccination for the American public was suspended in 1972, which leaves a significant portion of the U.S. population susceptible to the disease if cases were to occur again. The majority of healthcare providers would also be unfamiliar with diagnosing smallpox cases and administering intradermal smallpox vaccine. In smallpox outbreaks occurring after World War II in the United States and Europe in which the initial case was not correctly diagnosed, there was a higher rate of infection (with a median of 27.5 persons infected from the initial case) and a longer duration of outbreak (with a median of three generations) compared to outbreaks in which the initial case was correctly diagnosed (median of three new cases lasting for one generation).⁶

Surveillance and containment, including ring vaccination, remains the primary strategy for controlling and containing smallpox.⁷ Therefore, sustained federal emergency preparedness funding is necessary to support an expansion of local health department capacity for conducting disease surveillance and responding to outbreak situations. This includes funding to support all levels of public health infrastructure needed to conduct training and exercises before a smallpox outbreak and have tools to communicate and coordinate with local, state, and federal partners during and after a smallpox response. In addition, state and local health departments should be able to expand immunization to additional groups, including their jurisdiction's entire population if necessary, in a timely manner. To meet the expected vaccination and medical surge needs, a trained public health, healthcare, and response partner workforce is needed. Exploring partnerships with military institutions who regularly administer smallpox vaccine may be a potential option to increase local capacity, but more awareness and guidance on forming relationships with military institutions is needed at the local health department level.⁸ Despite advances by health departments across the country for all-hazards planning, training, and exercising of points of dispensing and disease mitigation, considerations that are unique to smallpox disease characteristics and smallpox MCMs should continue to be examined as health departments build and expand their public health preparedness plans.

The Division of Strategic National Stockpile is responsible for procurement of certain vaccines and MCMs that could be used to protect against smallpox. Additionally, the Biomedical Advanced Research and Development Authority (BARDA) makes available some of the MCMs needed to protect the U.S. population against a public health threat from smallpox.⁵ BARDA is currently supporting the development of both vaccines and antiviral treatment that can protect against and treat smallpox. An effective antiviral treatment could mitigate the effects of smallpox disease and has potential to protect against other pox viruses.⁹ Guidance that outlines the appropriate use of existing and newly developed smallpox MCMs including the different smallpox vaccines and antivirals is critical for an efficient and ethical response to smallpox.

Given that local health departments would play a vital role in the provision of smallpox MCMs during a smallpox outbreak, local health departments must be active participants in any reformulation of recommendations for smallpox vaccination and treatment. A strong local infrastructure that is made available through adequate funding paired with a planning strategy that accounts for existing range and quantity of smallpox MCMs and the associated infection control measure and adverse event management considerations is needed for local health departments to be adequately prepared for a smallpox response.

References

1. Sub-state refers to regions that are contained within a single state and does not refer to regions at the federal level.
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4. Centers for Disease Control & Prevention. (2015). Clinical Guidance for Smallpox Vaccine Use in a Postevent Vaccination Program. *MMWR*, 64(RR02);1-26.

5. Centers for Disease Control & Prevention. Stockpile History. Retrieved October 26, 2018, from <https://www.cdc.gov/phpr/stockpile/history.htm>
6. Bhatnagar, V., Stoto M. A., Morton, S. C., Boer, R., & Bozzette S. (2006). Transmission patterns of smallpox: systematic review of natural outbreaks in Europe and North America since World War II. *BMC Public Health*, 6(126), 126-138.
7. Fenner F., Henderson D. A., Arita I., Jezek Z., & Ladnyi I. D. (1988) Smallpox and its eradication. Geneva, Switzerland: World Health Organization.
8. U.S. Department of Defense. (2013) Department of Defense Instruction Number 6200.03. Retrieved February 7, 2019 from <https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/620003p.pdf>
9. U.S. Department of Health & Human Services. Medical Countermeasures for Smallpox. Retrieved October 26, 2018 from <https://www.medicalcountermeasures.gov/barda/cbrn/smallpox.aspx>

Record of Action

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