**Supplementary Material**

*Facility Operations*

Multiple employers and their staff worked at the detention facility. The facility was operated through a contractual agreement with the city; the city entered into an intergovernmental service agreement with U.S. Immigration and Customs Enforcement (ICE) to house ICE detainees in the jurisdiction. The facility was operated by a private entity, which uses subcontracted vendors for some services. ICE officials had offices on-site, and ICE operated the medical clinic with staffing support through 2 contracted vendors. The U.S. Department of Justice, Executive Office of Immigration Review, operated the immigration courts on-site at the facility.

**Outbreak Response**

Response measures followed CDC guidelines and included isolation of case-patients (not full airborne isolation because of the facility limitations, but in a single room with the door closed and away from others), quarantine and active monitoring of those exposed (exposed detainees were quarantined to their housing unit and exposed staff were recommended to be quarantined at home), movement and visitation restrictions, and vaccination.

*Management of Detainee Case-patients and Exposed Detainees*

Detainee case-patients who received a measles diagnosis were isolated for the duration of their infectious period in isolation rooms B6 and E6. Because of limited space, additional isolation entailed restricting detainees to their housing unit (i.e., detainee case-patients were isolated in a single room and away from others), and the entire unit was considered exposed and quarantined to their housing unit. Ill detainees were also provided surgical masks. Daily temperature and illness checks were performed for detainees residing in the quarantined units to monitor for additional potential measles case-patients; a temperature above 101ᵒF or symptoms of cough, coryza, conjunctivitis, or a rash prompted further follow-up by medical and public health personnel. Intake of new detainees to the facility and transfer of detainees to other facilities and court proceedings were initially halted (see below).

Before outbreak identification (but within the defined outbreak period), 247 detainees who were released to 32 U.S. states and 16 non-U.S. countries, and 18 detainees who were transferred to 13 other facilities, were also considered potentially exposed. We notified the corresponding national and international health jurisdictions, and other facilities, of these persons for appropriate follow-up. International Health Jurisdictions were notified via respective National Focal Points under the World Health Organizations’ International Health Regulations. One epidemiologic-linked case-patient was identified in a detainee released to Maricopa County, Arizona, and 1 laboratory-confirmed case-patient was identified in a detainee released to Los Angeles County, California. No other released detainees were reported to have contracted measles by any other jurisdiction.

*Management of Staff Case-patients and Exposed Staff*

Facility staff were provided measles education materials and encouraged to provide proof of vaccination or immunity to measles. Recommendations were made to exclude any infectious measles case-patients among staff and staff lacking evidence of immunity (age-appropriate up-to-date vaccination [one or more doses of a measles-containing vaccine administered on or after the first birthday], laboratory evidence of immunity, laboratory confirmation of disease, or birth before 1957) from work. However, none of the employers at the facility had legally permissible mechanisms that would allow them to mandate work exclusions. Public health recommended that any staff member that did not have evidence of presumptive immunity and could not be excluded from work to wear a surgical mask while in the facility. A second dose was recommended for those with documentation of one vaccine dose, no earlier than 28 days after receipt of the first dose.

*Visitation of Detainees*

Family and legal visits were initially restricted when the outbreak was identified on May 25, 2016. By June 8, 2016, visits were allowed contingent upon proof of immunity against measles. If evidence of immunity could not be provided, the visitor was encouraged to receive 1-dose of MMR vaccine before the visit. MMR vaccines were offered free of charge by the local health departments during the outbreak. Persons at risk for severe measles disease (infants aged ≤12 months, pregnant women, or immunocompromised persons) were not allowed to visit the detainees, regardless of evidence of immunity. Legal representation and consultation of the detainees regarding their immigration status, could be done via teleconference if available, possible, and practical for each situation.

*Community investigation and education*

Public messaging and alerts by press releases, social media, and the Arizona Health Alert Network were done to increase community awareness. Contact investigations performed for staff case-patients identified numerous community locations where potential exposures may have occurred, including healthcare facilities, grocery stores, gas stations, furniture stores, car dealerships, and similar places. Contacts to these case-patients had their vaccination status assessed and were monitored for symptoms. Between May 25 and August 8, Pinal County (population 389,350) evaluated 49 suspected community case-patients, and neighboring Maricopa County (population 4 million) evaluated 437 suspected community case-patients; however, no additional measles case-patients were identified.

*Vaccination Efforts*

MMR vaccination of 1,424 of the 1,425 detainees housed at the facility was performed during May 29–31 and a second dose of the MMR vaccine was given to all detainees again 4 weeks later, unless they had been released; some case-patients were also vaccinated before it was known that they had measles, but the exact number is unknown. On June 17 and June 21, free MMR vaccination clinics were offered to staff on-site. A raffle incentive was announced to encourage participation in staff vaccine clinics (incentives were not permitted for federal staff because of federal ethics laws prohibiting acceptance of gifts). After these initial clinics, 120 MMR doses were administered and only 308 (60%) of 510 staff had provided evidence of immunity. This led to scheduling of two additional staff vaccination clinicson July 15 and July 19, during which 70 MMR doses were administered. By August 4, evidence of immunity had been provided for 445 (87%) of 510 staff; 119 (23%) had documentation of 2 MMR doses, 307 (60%) had documentation of 1 MMR dose and received a second MMR vaccine during the outbreak, and 19 (4%) had laboratory evidence of immunity (IgG in serum).

Free MMR vaccination clinics were also offered by local public health departments and advertised to increase coverage in the community. A total of 1,022 doses of MMR were given to persons living in Pinal County during the outbreak, representing approximately twice the number of median doses administered during the same months during 2013–2015 (521 doses).

Lessons learned regarding slow uptake of vaccine and documenting proof of immunity among staff include the need to create contractual and interagency agreements that require MMR vaccination for staff members who work in detention facilities and do not have documented evidence of immunity (if permissible), enforcing quarantines for exposed staff to create a more natural incentive for vaccination, and centralized databases of staff that allow employers to quickly contact and gain access to vaccination record information, and other solutions; keeping these potential solutions in mind can benefit future response efforts in confirming immune status among workers.