



# 6. Immunization Programs

INFECTION CONTROL IN HEALTHCARE PERSONNEL: INFRASTRUCTURE AND ROUTINE  
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Infection Control in Healthcare Personnel: Infrastructure and Routine Practices for Occupational Infection Prevention and Control Services (2019)

## AT A GLANCE

Immunization Programs information from the Infection Control in Healthcare Personnel: Infrastructure and Routine Practices for Occupational Infection Prevention and Control Services (2019) guideline.

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## Recommendations

For healthcare organization leaders and administrators

Number	Recommendation
6.a.	Set goals to achieve high rates of evidence of immunity to vaccine-preventable diseases recommended for healthcare personnel by the Advisory Committee on Immunization Practices (ACIP).

For occupational health services leaders and staff

Number	Recommendation
6.b.	Develop, review, and update when necessary immunization program policies and procedures that:
6.b.1.	Adhere to Advisory Committee on Immunization Practices (ACIP) recommendations for immunizing healthcare personnel.
6.b.2.	Indicate all preplacement, annual, and other job-related immunizations that healthcare personnel should receive.
6.b.3.	Specify strategies to offer vaccines to healthcare personnel and to achieve high immunization coverage.
6.b.4.	Specify strategies for gathering and reviewing information on why recommended immunizations are not administered to inform program quality improvement.

# Background

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Immunization programs provide a set of services that ensure immunity to vaccine-preventable diseases, including documenting evidence of immunity, administering immunizations and re-immunizations, and record-keeping and reporting to state or local immunization information systems (IIS), also known as vaccine registries [1] [2]. A program might support additional immunization services, such as pre-travel vaccines for HCP working abroad, or might arrange for such services with an external provider. Effective programs can:

- prevent vaccine-preventable diseases among HCP [1] [3];
- prevent illness among patients<sup>1</sup> and others, such as HCP family and household members, by reducing their risk of encountering infectious HCP;
- adhere to ACIP immunization recommendations for HCP [1,3] and federal, state, and local requirements [4];
- reduce the need for, and costs related to, reactive measures, including postexposure prophylaxis, use of sick leave, and work restrictions; and
- increase the efficiency of reporting HCP immunization information internally, as for performance measurement and quality improvement initiatives, and to external groups, such as payors and public health agencies [5].

The [ACIP Vaccine Recommendations and Guidelines website](#) provides criteria for evidence of immunity to vaccine-preventable diseases, immunization recommendations for HCP, and information on immunization program administration, such as instructions for storage and handling of immunobiologics, vaccine administration, documentation, and reporting of adverse events. Additional information on IIS, including contact information for state or local immunization programs through which links to IIS can be established, is available on the [CDC Getting Started with IIS website](#).

## Selected federal requirements and accreditation standards

The OSHA Bloodborne Pathogens standard requires that the hepatitis B vaccine be offered to all employees with occupational exposure to blood or other potentially infectious materials at the employer's expense, and that the vaccine be available for postexposure management [4]. In addition, the standard requires that employers inform employees about the vaccine's efficacy, safety, method of administration, and the benefits of being vaccinated. Employees may refuse immunization but must sign a declination form that uses OSHA-prescribed language. Refer to the OSHA website [Standard: 1910.1030. Bloodborne pathogens](#) [7] for details. State and local requirements related to HCP immunizations and immunization programs vary by jurisdiction. In addition, payers—including CMS—and accreditation agencies may have requirements related to HCP immunization, such as reporting immunization coverage to NHSN and setting goals to improve immunization coverage [6] [7].

## Barriers to immunization

Despite existing recommendations and requirements for immunization of HCP, HCP immunization coverage is suboptimal [8] [9]. Barriers to vaccination vary depending on HCP subgroup and work setting. Barriers can include fear of adverse events from vaccination, including injection aversions; inconvenient access to vaccination (e.g., location, hours of service); lack of perceived need for vaccination (e.g., perception of low risk of acquiring a disease or low vaccine efficacy); and lack of leadership support for vaccination [9] [10] [11] [12].

## Strategies for improving HCP immunization coverage

CDC and ACIP provide information on strategies to increase immunization coverage; see [Table 11-1](#): "Recommendations regarding interventions to improve coverage of vaccines recommended for routine use among children, adolescents, and adults." It has been shown that comprehensive immunization programs that include mandatory immunization policies reliably and substantially increase receipt of preplacement and annual vaccines [13] [14]. Strategies other than mandatory policies that have been used in healthcare facilities to increase immunization coverage include [9] [10] [11] [13] [14] [15] [16] [17] [18] [19]:

- Using organizational leaders as role models (e.g., visibly vaccinating institutional leaders to improve coverage among HCP under their leadership).
- Conducting education or organizational campaigns to promote awareness and knowledge about vaccines.
- Providing free access (i.e., no out-of-pocket expense to HCP) to vaccine.
- Providing incentives to encourage immunization, such as coupons for the hospital cafeteria, gift certificates, etc.
- Offering flexible worksite vaccine delivery (e.g., at multiple locations and times, via mobile carts).

- Obtaining signed declinations for vaccine from HCP with non-medical reasons to decline vaccination.
- Monitoring and reporting vaccination rates (e.g., monitoring vaccine coverage by facility ward to identify areas with low coverage for targeted interventions to increase vaccination rates).

## Abbreviations

- ACIP = Advisory Committee on Immunization Practices
- CDC = Centers for Disease Control and Prevention
- CMS = Centers for Medicare & Medicaid Services
- HCP = Healthcare Personnel
- IIS = Immunization Information Systems
- NHSN = National Healthcare Safety Network
- OSHA = Occupational Safety and Health Administration

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