



⑧ The Role American Thoracic Society Healthcare Providers Have in Immunization

The American Thoracic Society (ATS) Pulmonary Infections and Tuberculosis Assembly recently formed a Vaccines and Immunization Working Group. The formation of this group highlights the important role immunization has in the care of persons with chronic lung disease and the responsibility of ATS healthcare providers to promote vaccination. Such an effort is particularly timely, given the suboptimal adult vaccination coverage globally for routine vaccines and the prioritization of adults for authorized severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) vaccines. As pulmonary and critical care physicians and research scientists who study vaccine-preventable diseases, we are honored to serve as the inaugural cochairs of this important working group.

In an effort to improve adult vaccination coverage in the United States, the National Vaccine Advisory Committee revised Standards for Adult Immunization Practice in 2013, calling for all healthcare professionals to assess the immunization status of patients at every encounter, to strongly recommend vaccines that patients need, to administer vaccines or refer patients to a vaccination provider, and to document vaccines received by patients (1). Despite these standards, U.S. clinical practices continue to miss important opportunities to vaccinate patients. In a 2018 survey by the CDC of U.S. subspecialty clinicians, common reasons for not recommending vaccination included that vaccinations were not considered within the scope of practice (69%), inadequate vaccination expertise at the practice (32%), and vaccinations were not considered high priority by the practice (22%) (2). As more than 25% of adults do not have a primary care physician and rely on subspecialists for their primary care (3), ensuring that our patients are protected from vaccine-preventable diseases must be considered well within the scope of our practices.

Routine immunization schedules include multiple vaccines recommended for adults, including boosters of childhood vaccines and others targeting older adults. In the United States, there are eight different vaccines recommended for adults who meet age requirements, including pneumococcal polysaccharide vaccination for those aged 65 years or older and annual influenza vaccination for all adults; others are recommended in the presence of additional risk factors or other indications (4). The presence of specific adult immunization policies has not resulted in high vaccination uptake. In the United States during the 2019–2020 influenza season, influenza vaccination coverage was 51% among those aged 50–64 years, 70% among those 65 years and older, and 51% among persons 18–64 years with high-risk conditions (5). In the European Union, reported influenza vaccination coverage among older adults ranged from 13%

to 58% and among persons with high-risk conditions from 25% to 57% during the 2016–2017 influenza season (6).

With improved health care and growing economies, people are living longer and more productive lives (7). The rapidly aging global population will have a major impact on healthcare needs, costs, and delivery. Although immunization has long been considered a mainstay of routine pediatric care, the aging global population is revealing the need for increased attention to adult vaccination (8). The increasing life expectancy in emerging economies has resulted in rises in the absolute numbers of severe infectious diseases in older adults (8), even as global rates of death and disability due to infectious diseases decrease (7). For example, from 1990 to 2016, death rates attributable to pneumococcal pneumonia among persons aged 70 years and older declined; however, the estimated absolute number of global deaths due to pneumococcal pneumonia has increased from 300,000 to 494,340 over the same time period (9). To address increasing cases of vaccine-preventable diseases outside of pediatric age groups, global mandates such as the Global Vaccine Action Plan and the Sustainable Development Goals have called for strengthening vaccination across the life course (10), although adult immunization remains uncommon in much of the world (8, 11). In a review of global vaccine policies during 2018, 38% of the 194 World Health Organization Member States, particularly low- and middle-income countries, had no adult immunization programs for routine adult vaccines, leaving an estimated 61% of the world's population without access to routine adult immunization services (11). In 2003, the World Health Assembly passed a resolution urging all United Nations Member States to immunize annually with influenza vaccines $\geq 75\%$ of persons with chronic diseases or aged 65 years or older by 2012 (12). Countries have struggled to achieve these global goals. In 2014, the influenza vaccination goals were achieved by only five countries for persons with chronic diseases and two countries for older adults (13).

The SARS-CoV-2 pandemic has laid bare the limitations of adult immunization. Compounding vaccine rollout challenges will be inequities in healthcare delivery and confidence in vaccine safety. Inequities in healthcare delivery have resulted in lower routine vaccination coverage rates among persons of color in the United States and threaten to compound disparities seen in SARS-CoV-2 illness outcomes in the same groups (10, 14). On November 23, 2020, the U.S. Advisory Committee on Immunization Practices discussed a framework for future SARS-CoV-2 vaccine response, including prioritization plans for distribution of licensed vaccines anticipated to be in limited supply (10). The committee endorsed a phased prioritization sequence beginning with healthcare personnel (Phase 1a), then essential workers, such as the education sector, police, and transportation workers (Phase 1b), followed by adults with high-risk medical conditions and aged 65 years and older (Phase 1c). Each U.S. state, tribe, and territory, however, develops its own system for phased SARS-CoV-2 vaccine prioritization. The CDC maintains a health department directory to assist the public to access the most relevant local SARS-CoV-2 vaccination information (15). A goal of the Vaccines and Immunization Working Group is to

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amplify the advocacy work done by ATS within the society and externally. An early priority of the working group is to highlight the critical need for the use of recommended pneumococcal and influenza vaccines during the 2020–2021 season, including providing information on effective communication strategies. Given the ongoing SARS-CoV-2 pandemic, avoiding vaccine-preventable illnesses will be critical to maximize available healthcare resources to treat patients with coronavirus disease (COVID-19) and to minimize healthcare system exposures of our high-risk patients. We also advocate rigorous and transparent scientific evaluation of candidate SARS-CoV-2 vaccines to increase the public trust in the vaccine development process and willingness to be vaccinated as products are licensed and available. The working group will be involved in cross-society statements on the role of vaccines, including SARS-CoV-2 vaccines, support for ATS healthcare providers to improve vaccine coverage, and ATS programs on immunization and vaccine development. We endeavor to strengthen immunization procedures and knowledge within ATS and to coordinate with public health, advocacy groups, and other professional societies to amplify our reach to achieve high vaccination coverage among our high-risk patients and in our communities. ■

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