Chapter 5
Migrant Health

Fernando Holguin and Marc B. Schenker

Immigration and Nonoccupational Lung Diseases

In spite of having lower socioeconomic status and reduced healthcare access, Hispanic migrants have a lower prevalence of allergies, asthma, and COPD [1]. However, this health paradox diminishes over time, as the rates for these diseases eventually increase to levels similar to those born in the host country. This phenomenon is primarily observed among migrant populations arriving from countries that have comparatively lower prevalence rates of these chronic respiratory diseases. In a representative study, the prevalence of asthma among Mexicans who migrate to the USA is half of that among Mexicans born in the USA (~4% vs. 8%), suggesting that the “migrant protective effect” against asthma is lost in subsequent generations [2]. Findings from a recent cross-sectional study suggest that the “healthy immigrant advantage” lasts for up to 2.5 generations for bronchitis and allergies, and until the third generation for asthma [3]. A time-dependent increase in asthma and allergy among migrating populations is not unique to Hispanics moving to the USA, as it has been described among migrants to other industrialized nations [4–8]. Potential mechanisms include sensitization to new ubiquitous environmental allergens, increase in obesity and smoking rates, and changes in disease awareness or healthcare access. The process by which migrants adapt to norms, language, and behavior of the host country, known as acculturation, has been associated with increased risks of acquiring detrimental habits (e.g., smoking and unhealthy diet).
and developing psychiatric disorders, all of which may confer greater susceptibility of developing chronic respiratory diseases [1]. For example, the prevalence of secondhand tobacco smoke (SHS) exposure is much lower among immigrant children in the USA (1.9%) than in children born in the USA (9%) [9]. Determining how risk and protective factors for developing lung diseases change as a result of acculturation is critical to our understanding of disease pathogenesis and development of effective interventions.

Lung Diseases in Hired Migrant Farm Workers

Demographics

There are approximately between three and five million hired farmworkers in the United States, of whom approximately half are undocumented [10]. In order to monitor and evaluate the labor status and needs of this population, the United States Department of Labor created the National Agricultural Workers Survey (NAWS), an employment-based random multi-region survey of US crop workers—including migrants—to collect demographic and employment data through face-to-face interviews every 2 years since 1989 [11]. Selective health information questions have been periodically added to the basic survey. In the NAWS 2009–2010 survey, based on 3691 interviews, 82% of the population was of Hispanic ethnicity with over 70% being born in Mexico. Compared to the 1999–2000 survey, the proportion of foreign-born workers that have resided in the USA for a short period of time (0–4 years) has steadily declined over this time period, from 46 to 16%. In contrast, the proportion of those residing longer in the USA has steadily increased. These changes may reflect many factors including a decrease in overall immigration rates and a more stable current hired farmworker population that has become more acculturated. In a recent survey, only a third of hired farmworkers reported speaking no English at all (compared to approximately half in a survey conducted a decade earlier). Over the last decade, more migrant farmworker families have seen their incomes rise above the poverty line while obtaining healthcare coverage for their children, but most adults in these families lack health insurance and pay out of pocket for medical expenses. More importantly, over half of current farmworkers remain “not legally authorized” to work in the USA, which clearly limits their access to many health benefits.

Risk Factors, from Environmental to Contextual Exposures

Hired farmworkers are exposed to a wide range of respiratory hazards that occur in agricultural work, including organic and inorganic dusts, agricultural chemicals, toxic gases, and infectious agents. They may also be exposed to harmful indoor exposures due to substandard housing conditions [12, 13]. For example, temporary