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Review Article

A life-course perspective on legal status stratification and health

Jacqueline M. Torres [a], Maria-Elena D. Young [b,*]

[a] RWJF Health & Society Scholars Program, University of California, San Francisco & University of California, Berkeley and UCSF Center for Health & Community, 3333 California Street, Suite 465, San Francisco, CA 94118, USA
[b] Department of Community Health Sciences, Fielding School of Public Health, University of California, 650 Charles E. Young Drive South, 36-071 CHS, Los Angeles, CA, 90095-1772, USA

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ABSTRACT

Scholars have expressed growing interest in the relationship between legal status stratification and health. Nevertheless, the extant research often lacks theoretical underpinnings. We propose the life-course perspective as a theoretical lens with which to understand relationships between legal status stratification and health outcomes. In particular, the life-course perspective guides researchers' attention to historical contexts that have produced differential social, political, and economic outcomes for immigrants based on legal status, and to the potentially long-term and intergenerational relationships between legal status stratification and health. We review four key dimensions of the life-course perspective and make recommendations for future directions in public health research on legal status and health.

Contents

Introduction

Scholars of immigrant health have long focused on immigrants' health advantage relative to U.S.-born counterparts, despite lower average socio-economic status. The so-called “immigrant paradox” is typically linked to migrants' favorable health behaviors (Blue & Fenelon, 2011; Creighton, Goldman, Pebley, & Chung, 2012) and family characteristics (Mulvaney-Day, Alegria, & Sribney, 2007), and the selection of relatively healthy individuals into migration (Jasso, Massey, Rosenzweig, & Smith, 2004). Despite the traditional focus on health advantages relative to the U.S.-born, researchers are increasingly focused on forms of social, economic and political stratification that may contribute to health disparities within immigrant groups (Acevedo-Garcia, Sanchez-Vaznaugh, Viruell-Fuentes, & Almeida, 2012; Castañeda et al., 2014; Viruell-Fuentes, Miranda, & Abdulrahim, 2012).

* Corresponding author. Tel.: +1 510 390 6782.
E-mail addresses: Jacqueline.Torres@ucsf.edu (J.M. Torres), mariaelena@ucla.edu (M.-E.D. Young).

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In particular, immigrants face significantly different life chances based on their legal status. Regardless of the specific strata that they encompass, systems of legal status stratification in each country (Jasso, 2011; Morris, 2002) determine individuals' relative access to the rights enjoyed by citizens, including the right to admission and residence, as well as employment, education, and public benefits. In the United States, 45% of the estimated 40 million foreign-born residents are naturalized U.S. citizens, another 27% possess an authorized legal status, and the remaining 27% are undocumented (Pew Research Center, 2013). Within the U.S. citizenship hierarchy, undocumented migrants enjoy the least access to rights. Other legal status categories include Lawful Permanent Residence (LPR) — the precursor to naturalization — asylee or refugee statuses, as well as temporary, and often precarious, lawfully residing statuses, such as Temporary Protective Status or deferred action. These statuses confer authorization to be in the U.S., but not all entail rights to obtain employment or receive public benefits.

The hierarchy of legal classifications shapes corresponding social, political, and economic conditions that may influence health outcomes and health inequalities. Legal status shapes (1) differential health risks (e.g. stress, working conditions), (2) resources to manage those risks (e.g. income), and (3) access to health-promoting services (e.g. public benefits, health care). In particular, there is increasing concern related to the health impact of anti-immigrant political and social environments faced by immigrants around the globe. Enforcement policies and activities create environments that are harmful to health (Hacker et al., 2011; Hardy et al., 2012; Rhodes et al., 2015). Undocumented immigrants, Lawful Permanent Residents with less than 5 years of residence, and many temporary status groups are not only excluded from public benefits, but vulnerable to deportation (ICE, 2015). Further, there are likely 'spillover' effects of these enforcement activities on individuals across legal status categories, including increased questioning and harassment about legal status by police and potential employers or concern about the deportation of friends and family members (Aranda, Menjivar, & Donato, 2014). Such experiences may contribute to acute and chronic stress, with adverse consequences for health outcomes for significant portions of the population that are immigrants or have immigrant family members.

Scholars across disciplines have begun to make the link between legal status stratification and health through mechanisms of difference in socio-economic opportunities (Bean, Leach, Brown, Bachmeier, & Hipp, 2011; Greenman & Hall, 2013; Hall, Greenman, & Farkas, 2010), access to health care (Amuedo-Dorantes, Puttitanun, & Martinez-Donate, 2013; Ortega et al., 2007; Raymond-Flesch, Siemons, Pourat, Jacobs, & Brindis, 2014; Vargas Bustamante et al., 2012), and exposure to psychosocial stressors (Dreby, 2015; Gonzales, Suárez-Orozco, & Dedios-Sanguineti, 2013; Suárez-Orozco, Yoshikawa, Teranishi, & Suárez-Orozco, 2011). For example, legal scholars have documented the history of the U.S. government's selective use of admissions, naturalization, and enforcement laws to integrate or exclude immigrant groups from U.S. institutions and employment opportunities (Motomura, 2007; Ngai, 2004). Social scientists have shed light on how legal status shapes successful economic and educational integration and social mobility (Alarcón, Rabadán, & Ortiz, 2012; Min, Lee, Vallejo, Tafoya-Estrada, & Yang Sao, 2008), and have uncovered experiences of social isolation, stigma, and family separation due to deportation that undocumented residents may experience at disproportionate rates relative to naturalized or lawfully residing counterparts (Brabeck, & Xu, 2010; Chaudry et al., 2010; Dreby, 2015; Gonzales et al., 2013; Yoshikawa, 2011). Furthermore, scholars have shed light on the potential for change in legal status across the life-course. For example, as formerly undocumented youth have obtained a temporary status under the Deferred Action for Childhood Arrivals policy, social scientists have assessed both the long-term impact of having once been undocumented and the impact of changes in status on youth's life chances (Gonzales, Terriquez, & Ruszczyk, 2014).

Public health research has made a growing number of empirical contributions to our understanding of the relationship between legal status and health. Nevertheless, much of this work has focused on health services use or has examined descriptive health differences by legal status, with few theoretical underpinnings that hypothesize how the political, social, or economic elements of legal status may affect health. In particular, much of the available research pays limited attention to the historical factors that shape heterogeneous social, economic, and political circumstances for different immigrant groups, including immigrants of varying legal statuses. Moreover, studies are often interpreted without regard to the future, including the potential for long-term and potentially intergenerational effects of legal status stratification on health.

A life-course perspective on legal status stratification and health

We propose the life-course perspective (LCP) as a framework that offers a comprehensive theoretical lens for studying the health consequences of legal status stratification and for understanding legal status stratification as a social and structural determinant of health (Viruell-Fuentes, 2007). The life-course perspective draws attention to the effects of social and structural factors experienced across the individual life-course and among subsequent generations, all placed within a historical context (Elder, Johnson, & Crosnoe, 2003; Lynch & Smith, 2005).

Despite the emphasis on social and structural factors, the broad framework of LCP can encompass the processes described in the broader immigrant health literature, such as the "immigrant paradox". Specifically, the LCP allows scholars to bridge exposures related to legal status stratification with more proximal behavioral or cultural factors that may affect health (Lara, Gamboa, Kahramanian, Morales, & Hayes Bautista, 2005). For example, undocumented immigrants may experience disproportionate occupational and economic stressors, which may strain family networks and contribute to the erosion of family cohesion (Menjívar, 2000), with potentially adverse consequences for health (Rivera et al., 2008). Moreover, the deportation and detention of undocumented individuals may threaten the family and community networks that are often cited as a driving force behind observed health advantages among immigrant populations (Brabeck & Xu, 2010).

Scholars have applied the life-course perspective to the study of multiple forms of inequality in relation to health outcomes, including racism (Gee, Walsemann, & Brondolo, 2012; Hertzman, 2004) and socio-economic status (Kahn & Pearlin, 2006; McLaughlin et al., 2011). Over a decade ago, Jasso (2003) proposed the application of a life-course perspective to immigrant health, with an empirical example that took into account the experiences of *legal* migrants arriving to the U.S. Recently scholars have continued to emphasize the importance of bringing a life-course perspective to the field of immigrant health more generally (Acevedo-Garcia et al., 2012), and several studies have applied dimensions of the life-course perspective to analyses of legal status and health with a focus on older migrant adults (de Oca, García, Sáenz, & Guillén, 2011; Gubernskaya, Bean, & Van Hook, 2013; Miller-Martinez & Wallace, 2007). We expand upon this previous work to consider the health impact of legal status stratification on undocumented migrants, formerly undocumented migrants, and those with temporary or 'liminal' legal statuses (Menjivar, 2006), as well as the family members of those who are undocumented, given the health-related vulnerabilities faced by these groups (Castañeda & Melo, 2014; Dreby, 2012; Suárez-Orozco et al., 2011).

In particular, we propose that the life-course perspective will help advance research on legal status stratification and health by acknowledging (1) the long-term and dynamic effects of legal status stratification and (2) the potentially inter-generational effects of legal status on health.

Long-term and dynamic effects of legal status stratification

Viewing the health of immigrants through a perspective that takes into account the past, future, and changing conditions experienced by immigrants across legal status categories is critical: immigrants, including undocumented immigrants, are increasingly long-term residents of the U.S., raising families that include U.S.-born children or foreign-born children who have lived the vast majority of their lives in the U.S. (Passel, Cohn, Krogstad, & Gonzalez-Barrera, 2014). Given the embeddedness of immigrants within families that are rooted in the U.S., many immigrants are likely to age in place and continue to be stratified by legal status. Further, because an individual's legal status may change over their course of their lives, the LCP provides a theoretical lens for considering the impact of individual legal status trajectories, which may entail experiences across tiers of legal status stratification. For example, there may be long-term health impacts of having been undocumented or in a temporary status, including lasting effects of delays in healthcare access and exposure to chronic stressors, even after obtaining permanent residence or naturalization.

Generational effects of legal status stratification

The legal status of immigrants is intimately linked to individual and family biography, as well as historical time and place (Jasso, 2011). Individual and family circumstances – including pre-migration economic and human capital accumulation and social ties – intersect with the economic and political climate of the receiving society. Agreements and conflict between sending and receiving states at a given point in time generate and reinforce stratification among immigrants by legal status. Differential health-related exposures experienced across legal status categories in one generation may have consequences for health – and differences in health outcomes – for subsequent generations.

Understanding the dynamic nature of immigrants' heterogeneous social, economic, and political circumstances allows for consideration of both context and change in the conditions that shape health over time and across generations. This is critical given the ever-changing nature of legal status categories and the associated risks and protective factors based on federal, state, and local-level policies.

We now turn to four key concepts from the life-course perspective and consider how they can inform research on the relationship between legal status stratification and health outcomes (Supplemental Table 1). Because legal status stratification in each nation is produced by different legal and social systems, we focus on examples particular to the U.S. Scholars can apply life course perspective concepts across international contexts to understanding the relationship between legal status stratification and health.

Historical time and place

The political and social conditions at a given historical time and place shape the definition of legal status categories and their demographic composition, as well as the significance of legal status for health. As a result, the social, political, and economic context of particular historical periods and locations provide a critical context for understanding the possible influence of legal status categories on health. Legal status categories are created by policies that have changed over the course of U.S. history in concert with shifting social attitudes towards specific immigrant groups and changes in the political and economic climate (Motomura, 2007, 2014). For example, during the 19th and early 20th centuries there were no numerical restrictions on migration from Europe, while there was formal exclusion of migrants from China. These divergent policies were based on explicitly racialized social attitudes, as well as economic and political factors (Motomura, 2007). Due to the open migration for European immigrants, there was no unauthorized migration – or "undocumented" status as we know it today – until quotas on migration from this region were first established in 1921, during a time of post-war economic downturn (Tichenor, 2002).

The size, distribution, and health-related characteristics of migrant populations across legal status categories are also historically and geographically contingent, resulting from a confluence of demographic, economic, political, and social factors in sending and receiving contexts (Massey, Durand, & Pren, 2014). For example, shifting circumstances in sending countries contribute to the number of individuals seeking entry into the U.S.: recent numbers suggest a tapering of U.S. migration from Mexico, due in part to declining labor demand in the U.S. as well as demographic shifts in Mexico towards lower fertility and an aging population (Massey et al., 2014; Passel, Cohn, & Gonzalez-Barrera, 2013; Passel et al., 2014). Meanwhile, rates of migration from Central America are expanding due to poverty, violence, and political instability in the region (Massey et al., 2014). Central American migrants currently arriving and settling in the U.S. - including a large number of unaccompanied minors (Robinson, 2015) - hold a number of diverse legal statuses, including citizenship, LPR, 'liminal' statuses, including Temporary Protective Status (Menjivar, 2006), and undocumented status.

The conditions of migrant sending countries are dynamic across time and shape pre-migration exposures that intersect with legal status stratification (Gushulak & MacPherson, 2011). Migrants may come from regions with high rates of infectious or chronic disease, or both. Those who survived childhood and migrated from regions with high rates of infectious disease may be more highly selected on characteristics of early-life nutrition and socio-economic status, contributing to better health in later-life. Others may face greater pre-migration exposure to conditions that contribute to poor health along the life-course, including high rates of tobacco use, violence, and discrimination. Migrants' position within sending societies shapes pre-migration health-related exposures and the post-migration legal status they hold. For example, individuals from high socio-economic strata in countries of origin may be less likely to face early-life poverty *and* more likely to migrate with Lawful Permanent Residency. Thus, the selectivity of migrants into varying legal statuses in the U.S. is likely based on characteristics that may be influential for health across countries of origin and various migrant cohorts.

Policies also vary across time and place in the provision of rights and services based on legal status. Federal and state policies have expanded and constricted rights based on legal status during different periods, and state and local policies can extend access to public benefits for those that have been excluded at the federal level (Marrow, 2012). For example, while the Affordable Care Act excludes undocumented immigrants and some lawfully residing immigrants from federally funded health insurance (Zuckerman, Waidman, & Lawton, 2011), select states and municipalities have expanded coverage to those otherwise excluded (Raymond-Flesch et al., 2014; Wallace, Torres, Nobari, & Pourat, 2013). Other recent examples include access to affordable higher education and driver's licenses for undocumented immigrants, despite federal laws designed to restrict access to those resources. These policies influence access to services that have a direct impact on health (Kullgren, 2003; Torres & Waldinger, 2015), and contribute to structural stigma (Abrego, 2011; Phelan, Lucas, Ridgeway, & Taylor, 2014) experienced by immigrants who face restricted rights,

which may be an important determinant of mental and physical health outcomes.

Time and place-specific trends underscore the importance of considering contextual factors in research on legal status and health. In addition, the dynamic nature of legal status categorization suggests the need for understanding the health impact for those in emergent legal status categories, such as those with Deferred Action for Childhood Arrivals or migrants from countries newly designated for Temporary Protective Status.

Latent effects and critical periods

Legal status stratification contributes to differences in early-life exposures that may have lasting impacts on health later in life for both immigrants and their children. The concepts of latent effects and critical periods provide a theoretical basis for examining both the long-term and unique impacts that legal status stratification may have on health at key periods of development. Latent effects refer to the persistent, long-term effect of an exposure from an earlier point in time, regardless of intervening circumstances (Hertzman, 2004). Critical periods refer to developmental stages along the life-course in which exposures may have particularly acute and irreversible effects on later-life health (Barker, 1993; Raposo, Mackenzie, Henriksen, & Afifi, 2014). These critical periods may include *in utero* and early childhood, given the sensitivity of developing neurocognitive, endocrine, and other systems in early life (Fagundes, Glaser, & Kielcolt-Glaser, 2013; Kim et al., 2013; Schlotz & Phillips, 2009). Adolescence and young adulthood are also thought to represent critical periods given the neurodevelopmental and hormonal changes and the social, behavioral, and identity development that take place during this phase in the life-course (Viner et al., 2012).

Exposures to acute and chronic stressors that may have lasting effects on health later along the life-course are often differentially distributed by immigrant legal status. In particular, undocumented migration might entail traumatic physical and psychological experiences (Holmes, 2013) that have lasting health effects. Furthermore, chronic and acute work-related exposures with potentially long-term impacts on health may also be disproportionately distributed across legal status strata. Undocumented workers have limited power to change occupational exposures (Holmes, 2007) that increase risk for injuries or illness that may have lasting, irreversible impacts on their physical and mental health (Negi, 2011; Walter, Bourgois, & Loinaz, 2003). The long-term impact of poor working conditions may not be apparent until late-life. Moreover, there may be lasting health consequences of trauma, injury, or stress earlier in life even if political or individual-level changes lead to a change in legal status.

Some exposures may be particularly salient for child health as they undergo critical periods of development. For example, early childhood exposure to pesticides used for farming in the U.S. have in turn been linked to adverse health and neurodevelopmental outcomes for the children of farmworkers (Raanan et al., 2014), who may be disproportionately undocumented (Mehta et al., 2000). Moreover, the broader social, economic, and health inequities experienced by parents who face barriers to healthcare (Ortega et al., 2007; Vargas Bustamante et al., 2012) and low wages (Hall et al., 2010) as the result of their legal status may, in turn, result in early and long-term disadvantages for their children, including barriers to early childhood education (Yoshikawa, 2011), greater developmental risk (Ortega et al., 2009), and lower educational attainment (Bean et al., 2011). Fewer opportunities for cognitive and social development during early and critical developmental stages may contribute to poor health later in life, regardless of intervening experiences. The life-course construct of critical periods is therefore closely tied to concepts of linked lives and intergenerational effects.

Linked lives and intergenerational effects

Immigrants' individual-level exposure to inequitable structural factors can have an impact on families and broader communities. The construct of linked lives provides a theoretical basis for examining how conditions related to an individual's legal status may influence or be influenced by the conditions of others, with potential consequences for health (Elder Jr., 1998; Gee et al., 2012). Intergenerational effects points to the ways in which an individual's life-course is shaped by individuals from previous generations and shapes the exposures of those in future generations (Kane, 2015; Serbin & Karp, 2004).

Most often, linked lives and intergenerational effects refer to connections between family members, given evidence linking the health exposures of those in previous generations to the health outcomes of children and grandchildren (e.g. Lê-Sherban, Diez Roux, Li, & Morgenstern, 2014). An estimated nine million individuals in the U.S. live in mixed legal status families, and family members who are authorized to be in the U.S. can experience the consequences of policies that are meant to limit access to services for their undocumented relatives (Castañeda & Melo, 2014; Chavez, Lopez, Englebrecht, & Viramontez Anguiano, 2012). Lives may also linked across neighborhoods, communities, and institutions: enforcement or service exclusions aimed at undocumented immigrants may affect the wellbeing of community members, regardless of legal status (Hacker et al., 2011; Rhodes et al., 2015).

One example of the intergenerational impact of legal status stratification on health relates to the separation of foreign- and U.S.-born family members, including parents and children, due to immigrant detention and deportation (Chaudry et al., 2010; Dreby, 2015). Parental separation due to deportation has been associated with reduced child well-being (Brabeck & Xu, 2010; Chaudry et al., 2010; Koball et al., 2015). In findings from a longitudinal birth cohort study, Yoshikawa (2011) reports that mothers' fear of deportation, even without its actual occurrence, was associated with higher levels of maternal depression, which was in turn associated with fewer cognitive skills among pre-school age children.

As with other aspects of childhood adversity, deportation-related family separation has the potential to impact a wide range of physical and mental health outcomes by way of generating “toxic stress”, which refers to exposure to chronic stressors without resources – familial or otherwise – to buffer the effects of these exposures (Shonkoff & Garner, 2012). Toxic stress caused by family separation or similar adverse experiences in childhood can impact health through mechanisms of systemic inflammation, immune dysregulation, changes in neurocognitive development, heightened psychological reactivity, cellular aging, and DNA methylation (Drury et al., 2014; Fagundes et al., 2013; Franklin et al., 2010; Lacey, Kumari, & McMunn, 2013).

Even earlier along the life-course, poor birth outcomes have been linked to restricted access to prenatal care due to fear of deportation and policies that create formal barriers to care for immigrants based on legal status. Reed and co-authors (2008) found that undocumented women were more likely to have complications during delivery, such as fetal distress and need for assisted ventilation compared with women holding other legal statuses. A study of the impact of Arizona SB 1070 found a significant decline in utilization of routine pediatric care (Toomey et al., 2014) among Mexican-origin families after the passage of the bill, regardless of parental legal status.

Another example of linked lives in the context of legal status stratification and health that merits further attention are the 'spillover' effects of policies on health and healthcare for immigrants in general, or members of larger racial/ethnic minority groups (Aranda et al., 2014; Hacker et al., 2011). The spillover effects related to concern about deportation can also be seen among foreign-born respondents to a 2002–2003 nationally representative survey of Latino residents in the U.S.: 11% of foreign-born respondents reported either thinking they might be deported if they went to a social or government agency and/or avoided using health services due to fear of immigration authorities; 2% of naturalized citizens and nearly 19% of those holding other legal statuses reported this worry. A full quarter of foreign-born Latinos reported being questioned about their legal status, including 17% of naturalized citizens and 30% of those holding other legal statuses (see Supplemental Table A). More recent national survey data suggests that nearly half of Latino residents and 16% of Asian-American residents are concerned that a family member or close friend could be deported, regardless of respondents' own immigration or legal status (Hugo Lopez, Taylor, Funk, & Gonzalez-Barrera, 2013).

Legal status stratification and its health consequences are shaped by historical and geographic context. But the concept of linked lives points to the idea that the individual experience of legal status and policies targeting those with undocumented or other precarious legal statuses has reciprocal impacts on family and community-level contexts. These impacts can include spillover effects within families and communities, and across generations.

Transitions and trajectories

Life-course transitions and trajectories for immigrants and their children may be shaped by legal status stratification, with consequences for health. Trajectories refer to long-term patterns of stability and change within multiple dimensions of individual, familial, and social life (e.g. employment trajectories, marital trajectories) (George, 1993). Divergent life-course trajectories are often linked to health disparities. For example, individuals who experience downward socio-economic mobility across the life-course have been observed to have poorer health outcomes in later-life than those who experience trajectories of upward mobility (Luo & Waite, 2005).

Transitions refer to life changes that are defined by developmental stage, and may mark entry and exit in and out of social roles. They are also embedded in cultural, social, and historical contexts that define normative social roles and the timing of entry and exit (George, 1993). Non-normative changes may also result in significantly different life trajectories for an individual or group. For example, a transition that occurs outside of socially defined expectations and timing (e.g. teen pregnancy, early exit from education) may be associated with adverse health outcomes (Martin, Blozis, Boeninger, Masarik, & Conger, 2014).

Migration itself may be considered a transition along the individual life-course. For example, migration from historic 'sending' communities (e.g. Western Mexico) may be considered a normative transition for young adults, as part of an expected trajectory of life and work in the U.S. (Massey, Alarcon, Durand, & González, 1987). Migration may also reflect a non-normative transition that results from individual or macro-level conditions (e.g. civil conflict, economic crises). Moreover, the experience of migration may represent a transition in one's individual health: longitudinal evidence from Mexico suggests that recent migrants to the U.S. experienced significant declines in self-rated health status (Goldman et al., 2014), which may be the result of the challenging physical and emotional experience of migration and undocumented migration (Holmes, 2013), as well as the disruption to social networks and hostile reception context faced in the U.S.

Studies suggest that immigrant youth may experience life transitions differently based on their legal status. Gonzales (2011) and Abrego (2011) describe that adolescents who are undocumented often learn of their legal status and its implications while undergoing normative adolescent experiences: attempting to apply for a driver's license, jobs, or college admission. As a result of being blocked from these opportunities, many undocumented youth describe feelings of low self-esteem, stigmatization and a sense of hopelessness about the future. As they contend with the limitations of their legal status, they may then be discouraged or barred from opportunities for the trajectories of upward socio-economic mobility taken by their peers. Undocumented youth are often observed to exit early from secondary or higher education and enter into low-skilled occupations (Gonzales et al., 2013; Raymond-Flesch et al., 2014). Some U.S. states have enacted formal barriers to entry into higher education for undocumented students, and even undocumented students who gain entry into higher education may face significant financial burden due to the lack of options for financial aid (NCSL, 2014). The differing barriers that youth face during these critical educational transitions based on their legal status may contribute to highly divergent educational trajectories; educational attainment is in turn one of the most robust predictors of population health and longevity (e.g. Ross & Wu, 1996).

There is some evidence that legal status may shape health-related trajectories later along the life-course as well. One study found that naturalization was associated with fewer functional limitations among older adults who migrated to the U.S. during childhood or young adulthood and had accumulated decades of greater civic, occupational, and economic incorporation relative to their non-naturalized, lawful permanent resident counterparts (Gubernskaya et al., 2013). Another qualitative study of older Mexican migrants reported undocumented migrants' own accounts of rapid health decline in late-life relative to documented peers given a lifetime of manual, low-wage labor (de Oca et al., 2011). Taken together, these studies highlight the potential importance of legal status across the life-course, including changes in legal status, in shaping later-life health outcomes.

Future research on legal status stratification and health

The four life-course perspective concepts discussed above provide a framework for future, theoretically grounded research that examines how legal status stratification exposes individuals to different health risks depending on historical place and time, developmental period in life, generational or community connections, and life transitions. The social and structural conditions described by the life course perspective suggests that differential exposures may result in cumulative experiences of disadvantage, marginalization, and increased exposure to health risks based on legal status. As immigrants continue to build their lives in the U.S. (Passel et al., 2014), exposure to the conditions shaped by legal status stratification are likely to persist over the long-term, with potential influences on their health outcomes later in life. These concepts indicate areas of inquiry to guide further theoretical and empirical developments.

Research on legal status stratification and health has been hampered by the limited inclusion of legal status measures in health studies, in part due to ethical concerns about collecting legal status data (Carter-Pokras & Zambrana, 2006). Nevertheless, data sources that include large, representative samples of foreign-born respondents as well as measures of legal status and health are critical to test the legal status–health relationships suggested by the life-course perspective. Further, data should include repeated measures of legal status, given its dynamic nature historically and due to policy shifts (e.g. DACA), and individual transitions (e.g. naturalization). Already, population-based surveys with short-term follow-up have been used to understand the relationship between legal status and

intergenerational health outcomes (Landale, Hardie Halliday, Oropesa, & Hillemeier, 2015), although data representing the foreign-born population on a national-level is needed.

Even in the absence of available data for studying longitudinal outcomes associated with legal status stratification, scholars might draw on theoretical concepts from the life-course perspective to (1) situate cross-sectional analyses in the particular time and place in which data was captured and (2) make inferences about the long-term consequences of findings captured at one point in time (e.g. the long-term consequences of adverse birth outcomes, or family separation due to deportation).

Qualitative studies have already advanced our understanding of the differential conditions migrants face by individual and family legal status, and at key life transitions. In the future, long-term qualitative and mixed-methods research that follows respondents, families, or communities over time will be particularly critical to furthering our understanding of legal status stratification and health across the life-course. For example, qualitative research that follows individuals or communities before and after policy changes may help shed light on how historic shifts in legal status categories and their meaning lead to changes in health and its social determinants. Similar longitudinal research could be used to follow health and healthcare outcomes for individuals and families as they undergo key life transitions, including transitions in late-life, and how these outcomes differ by legal status.

Finally, population-based surveys, administrative records, and policy data bases are increasingly being used to study the association between policies and health for other minority groups (e.g. Lukachko, Hatzenbuehler, & Keyes, 2014), and might be extended to research on legal status stratification and health within or across national contexts. While these data sources may not be equipped to examine policy impacts by legal status, they might capture the 'spillover' effects of these policies on communities or racial and ethnic minorities in general. The connected nature of health and health-related exposures across linked lives could also be further explored in studies of family and community-based social networks, including respondent-driven sampling or other techniques to understand social network characteristics and health outcomes.

Conclusion

We present the life-course perspective as a set of concepts that can advance future research and theory related to legal status stratification and health. In particular, the life-course perspective underscores the importance of thinking about how exposures relate to health outcomes across the individual life-course, across generations, and within historical context. It brings attention to social and structural factors and their contributions to population health inequalities, but is still inclusive of individual-level factors. The focus on structural factors is particularly important, given that legal status is reflective of a *system* of stratification that positions immigrants within a hierarchy of relative access to the rights and responsibilities enjoyed by citizens. However, the life-course perspective may serve to bridge scholars' increasing interest in structural determinants of immigrant health with individual and family-level factors that may be shaped by and also interact with structural conditions. As long as legal status stratification persists, there will continue to be a need to for both descriptive and theoretically driven research that documents the potential impacts on health for the growing population of migrants across the globe, as well as their children and community members.

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Appendix A. Supplementary material

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References

Abrego, L. J. (2011). Legal consciousness of undocumented Latinos: Fear and stigma as barriers to claims-making for first and 1.5-generation immigrants. *Law & Society Review*, *45*, 337–370.

Acevedo-Garcia, D., Sanchez-Vaznaugh, E. V., Viruell-Fuentes, E. A., & Almeida, J. (2012). Integrating social epidemiology into immigrant health research. *Social Science & Medicine*, *75*, 2060–2068.

Alarcón, R., Rabadán, L. E., & Ortiz, O. O. (2012). *Mudando el hogar al norte: Trayectorias de integración de los inmigrantes mexicanos en Los Ángeles*. Tijuana, Mexico: El Colegio de la Frontera Norte.

Amuedo-Dorantes, C., Puttitanun, T., & Martinez-Donate, A. P. (2013). How do tougher immigration measures affect unauthorized immigrants? *Demography*, *50*, 1067–1091.

Aranda, E., Menjivar, C., & Donato, K. M. (2014). The spillover consequences of an enforcement-first U.S. immigrant regime. *American Behavioral Scientist*, *58*, 1687–1695.

Barker, D. J. P. (1993). The intrauterine origins of cardiovascular disease. *Acta Paediatrica*, *82*, 93–99.

Bean, F. D., Leach, M. A., Brown, S. K., Bachmeier, J. D., & Hipp, J. R. (2011). The educational legacy of unauthorized migration: Comparisons across U.S.-immigrant groups in how parents' status affects their offspring. *International Migration Review*, *45*, 348–385.

Blue, L., & Fenelon, A. (2011). Explaining low mortality among US immigrants relative to native-born Americans: The role of smoking. *International Journal of Epidemiology*, *40*, 786–793.

Brabeck, K. M., & Xu, Q. (2010). The impact of detention and deportation on Latino immigrant children and families: A quantitative exploration. *Hispanic Journal of Behavioral Sciences*, *32*, 341–361.

Carter-Pokras, O., & Zambrana, R. E. (2006). Collection of legal status information: Caution! *American Journal of Public Health*, *96*, 399.

Castañeda, H., Holmes, S. M., Madrigal, D. S., DeTrinidad Young, M.-E., Beyeler, N., & Quesada, J. (2014). Immigration as a social determinant of health. *Annual Review of Public Health* (p. 36), 36.

Castañeda, H., & Melo, M. A. (2014). Health care access for Latino mixed-status families: Barriers, strategies, and implications for reform. *American Behavioral Scientist*, *58*, 1891–1909.

Chaudry, A., Capps, R., Pedroza, J. M., Castañeda, R. M., Santos, R., & Scott, M. M. (2010). *Facing our future: Children in the aftermath of immigration enforcement*. Washington, DC: The Urban Institute.

Chavez, J. M., Lopez, A., Englebrecht, C. M., & Viramontez Anguiano, R. P. (2012). Sufren los niños: Exploring the impact of unauthorized immigration status on children's well-being. *Family Court Review*, *50*, 638–649.

Creighton, M. J., Goldman, N., Pebley, A. R., & Chung, C. Y. (2012). Durational and generational differences in Mexican immigrant obesity: Is acculturation the explanation? *Social Science & Medicine*, *75*, 300–310.

de Oca, V. M., García, T. R., Sáenz, R., & Guillén, J. (2011). The linkage of life course, migration, health, and aging: Health in adults and elderly Mexican migrants. *Journal of Aging and Health*, *23*, 1116–1140.

Dreby, J. (2012). The burden of deportation on children in Mexican immigrant families. *Journal of Marriage and the Family*, *74*, 829–845.

Dreby, J. (2015). U.S. immigration policy and family separation: The consequences for children's well-being. *Social Science & Medicine*, *132*, 245–251.

Drury, S. S., Mabile, E., Brett, Z. H., Esteves, K., Jones, E., Shirtcliff, E. A., et al. (2014). The association of telomere length with family violence and disruption. *Pediatrics*, *134*, e128–e137.

Elder, G. H., Johnson, M. K., & Crosnoe, R. (2003). The emergence and development of lifecourse theory In: J. T. Mortimer, & M. J. Shanahan (Eds.), *The handbook of the lifecourse* (pp. 3–19). New York: Kluwer Academic Press.

Elder, G. H., Jr. (1998). The life course as developmental theory. *Child Development*, *69*, 1–12.

Fagundes, C., Glaser, R., & Kielcolt-Glaser, J. (2013). Stressful early life experiences and immune dysregulation across the lifespan. *Brain Behavior and Immunity*, *27*, 8–12.
Franklin, T. B., Russig, H., Wiess, I. C., Graff, J., Linder, N., Michalon, A., et al. (2010). Epigenetic transmission of the impact of early stress across generations. *Biological Psychiatry* (p. 68), 68.
Gee, G. C., Walsemann, K. M., & Brondolo, E. (2012). A life course perspective on how racism may be related to health inequities. *American Journal of Public Health*, *102*, 967–974.
George, L. K. (1993). Sociological perspectives on life transitions. *Annual Review of Sociology*, *19*, 353–373.
Goldman, N., Pebley, A. R., Creighton, M. J., Teruel, G. M., Rubalcava, L. N., & Chung, C. (2014). The consequences of migration to the United States for short-term changes in the health of Mexican immigrants. *Demography*, *51*, 1159–1173.
Gonzales, R. G. (2011). Learning to be illegal: Undocumented youth and shifting legal contexts in the transition to adulthood. *American Sociological Review*, *76*, 602–619.
Gonzales, R. G., Suárez-Orozco, C., & Dedios-Sanguineti, M. C. (2013). No place to belong: Contextualizing concepts of mental health among undocumented immigrant youth in the United States. *American Behavioral Scientist*, *57*, 1174–1199.
Gonzales, R. G., Terriquez, V., & Ruszczyk, S. P. (2014). Becoming DACAmented: Assessing the short-term benefits of Deferred Action for Childhood Arrivals (DACA). *American Behavioral Scientist*, *58*, 1852–1872.
Greenman, E., & Hall, M. (2013). Legal status and educational transitions for Mexican and Central American immigrant youth. *Social Forces*, *91*, 1475–1498.
Gubernskaya, Z., Bean, F. D., & Van Hook, J. (2013). (Un)healthy immigrant citizens: Naturalization and activity limitations in older age. *Journal of Health and Social Behavior*, *54*, 427–443.
Gushulak, B. D., & MacPherson, D. W. (2011). Health aspects of the pre-departure phase of migration. *PLoS Medicine*, *8*, e1001035.
Hacker, K., Chu, J., Leung, C., Marra, R., Pirie, A., Brahimi, M., et al. (2011). The impact of Immigration and Customs Enforcement on immigrant health: Perceptions of immigrants in Everett, Massachusetts, USA. *Social Science & Medicine*, *73*, 586–594.
Hall, M., Greenman, E., & Farkas, G. (2010). Legal status and wage disparities for Mexican immigrants. *Social Forces*, *89*, 491–513.
Hardy, L. J., Getrich, C. M., Quezada, J. C., Guay, A., Michalowski, R. J., & Henley, E. (2012). A call for further research on the impact of state-level immigration policies on public health. *American Journal of Public Health*, *102*, 1250–1253.
Hertzman, C. (2004). The life-course contribution to ethnic disparities in health In: N. B. Anderson, R. A. Bulatao, & B. Cohen (Eds.), *Critical perspectives on racial and ethnic differences in health in late life*. Washington, DC: National Academies Press.
Holmes, S. M. (2007). 'Oaxacans like to work bent over': The naturalization of social suffering among Berry farm workers. *International Migration*, *45*, 39–66.
Holmes, S. M. (2013). Is it worth risking your life?" Ethnography, risk and death on the U.S.–Mexico border. *Social Science & Medicine*, *99*, 153–161.
Hugo Lopez, M., Taylor, P., Funk, C., & Gonzalez-Barrera, A. (2013). *On immigration policy, deportation relief seen as more important than citizenship: A survey of Hispanics and Asian Americans*. Washington, D C: Pew Research Center: Hispanic Trends.
ICE (2015). *FY 2015 ICE immigration removals*. Washington, DC: U.S. Immigration and Customs Enforcement, Department of Homeland Security.
Jasso, G. (2003). Migration, human development and the lifecourse In: J. T. Mortimer, & M. J. Shanahan (Eds.), *Handbook of the lifecourse* (pp. 331–364). New York: Kluwer Academic Publishers.
Jasso, G. (2011). Migration and stratification. *Social Science Research*, *40*, 1292–1336.
Jasso, G., Massey, D. S., Rosenzweig, M. R., & Smith, J. P. (2004). Immigrant health: Selectivity and acculturation In: N. B. Anderson, R. A. Bulatao, & B. Cohen (Eds.), *Critical perspectives on racial and ethnic differences in health in late life*. Washington, DC: The National Academies Press.
Kahn, J. R., & Pearlin, L. I. (2006). Financial strain over the life course and health among older adults. *Journal of Health and Social Behavior*, *47*, 17–31.
Kane, J. B. (2015). An integrative model of inter- and intragenerational preconception processes influencing birthweight in the United States. *Journal of Health and Social Behavior*, *56*, 246–261.
Kim, P., Evans, G. W., Angstadt, M., Ho, S. S., Sripada, C. S., Swain, J. E., et al. (2013). Effects of childhood poverty and chronic stress on emotion regulatory brain function in adulthood. *Proceedings of the National Academy of Sciences of the United States of America*, *110*, 18442–18447.
Koball, H., Capps, R., Perreira, K., Campetella, A., Hooker, S., Pedroza, J., et al. (2015). *Health and social service needs of US-citizen children with detained or deported immigrant parents*. Washington, DC: The Urban Institute.
Kullgren, J. T. (2003). Restrictions on undocumented immigrants' access to health services: The public health implications of welfare reform. *American Journal of Public Health*, *93*, 1630–1633.
Lacey, R. E., Kumari, M., & McMunn, A. (2013). Parental separation in childhood and adult inflammation: The importance of material and psychosocial pathways. *Psychoneuroendocrinology*, *38*, 2476–2484.
Landale, N. S., Hardie Halliday, J., Oropesa, R. S., & Hillemeier, M. M. (2015). Behavioral functioning among Mexican-origin children: Does parental legal status matter? *Journal of Health and Social Behavior*, *56*, 2–18.
Lara, M., Gamboa, C., Kahramanian, M. I., Morales, L. S., & Hayes Bautista, D. E. (2005). Acculturation and Latino health in the United States: A review of the literature and its sociopolitical context. *Annual Review of Public Health*, *26*, 367–397.
Lê-Sherban, F., Diez Roux, A. V., Li, Y., & Morgenstern, H. (2014). Associations of grandparental schooling with adult grandchildren's health status, smoking, and obesity. *American Journal of Epidemiology*, *180*, 469–481.
Lukachko, A., Hatzenbuehler, M. L., & Keyes, K. M. (2014). Structural racism and myocardial infarction in the United States. *Social Science & Medicine*, *103*, 42–50.
Luo, Y., & Waite, L. (2005). The impact of childhood and adult SES on physical, mental and cognitive well-being in later-life. *The Journals Gerontology Series B: Psychological Sciences and Social Sciences*, *60B*, S93–S101.
Lynch, J., & Smith, G. D. (2005). A life course approach to chronic disease epidemiology. *Annual Review of Public Health*, *26*, 1–35.
Marrow, H. B. (2012). The power of local autonomy: Expanding health care to unauthorized immigrants in San Francisco. *Ethnic and Racial Studies*, *35*, 72–87.
Martin, M. J., Blozis, S. A., Boeninger, D. K., Masarik, A. S., & Conger, R. D. (2014). The timing of entry into adult roles and changes in trajectories of problem behaviors during. *Developmental Psychology*, *50*, 2473–2484.
Massey, D. S., Alarcon, R., Durand, J., & González, H. (1987). *Return to Aztlan: The social processes of international migration from Western Mexico*. Berkeley, CA: UC Press.
Massey, D. S., Durand, J., & Pren, K. A. (2014). Explaining undocumented migration to the U.S. *International Migration Review*, *48*, 1028–1061.
McLaughlin, K. A., Breslau, J., Green, J. G., Lakoma, M. D., Sampson, N. A., Zaslavsky, A. M., et al. (2011). Childhood socio-economic status and the onset, persistence, and severity of DSM-IV mental disorders in a U.S. national sample. *Social Science & Medicine*, *73*, 1088–1096.
Mehta, K., Gabbard, S. M., Barrat, V., Lewis, M., Carroll, D., & Mines, R. (2000). *Findings from the National Agricultural Workers Survey (NAWS) 1997–1998: A demographic and employment profile of United States farmworkers*. Washington, DC; San Mateo, CA: U.S. Department of Labor, Office of the Assistant Secretary for Policy and Aguirre International.
Menjivar, C. (2006). Liminal legality: Salvadoran and Guatemalan immigrants' lives in the United States. *American Journal of Sociology*, *111*, 999–1037.
Menjívar, C. (2000). *Fragmented ties: Salvadoran immigrant networks in America*. Berkeley and Los Angeles, California: UC Press.
Miller-Martinez, D., & Wallace, S. P. (2007). Structural contexts and life-course processes in the social networks of older Mexican immigrants in the United States In: S. Carmel, C. A. Morse, & F. M. Torres-Gil (Eds.), *Lessons on aging from three nations*. Amityville, NY: Baywood Publishing Co.
Min, Z., Lee, J., Vallejo, J. A., Tafoya-Estrada, R., & Yang Sao, X. (2008). Success attained, deterred, and denied: Divergent pathways to social mobility in Los Angeles's new second generation. *The Annals of the American Academy of Political and Social Science*, *620*, 37–61.
Morris, L. (2002). *Managing migration: Civic stratification and migrants' rights*. London, New York: Routledge.
Motomura, H. (2007). *Americans in waiting: The lost story of immigration and citizenship in the United States*. New York, USA: Oxford University Press.
Motomura, H. (2014). *Immigrants outside the law*. New York, NY: Oxford University Press.
Mulvaney-Day, N. E., Alegria, M., & Sribney, W. (2007). Social cohesion, social support, and health among Latinos in the United States. *Social Science & Medicine*, *64*, 477–495.
NCSL (2014). *Undocumented student tuition: State action*. Washington, DC: National Conference of State Legislatures.
Negi, N. J. (2011). Identifying psychosocial stressors of well-being and factors related to substance use among Latino day laborers. *Journal of Immigrant and Minority Health*, *13*, 748–755.
Ngai, M. M. (2004). *Impossible subjects: Illegal aliens and the making of modern America*. Princeton, NJ: Princeton University Press.
Ortega, A. N., Fang, H., Perez, V. H., Rizzo, J. A., Carter-Pokras, O., Wallace, S. P., et al. (2007). Health care access, use of services, and experiences among undocumented Mexicans and other Latinos. *Archives of Internal Medicine*, *167*, 2354–2360.
Ortega, A. N., Horwitz, S. M., Fang, H., Kuo, A. A., Wallace, S. P., & Inkelas, M. (2009). Documentation status and parental concerns about development in young U.S. children of Mexican origin. *Acta Paediatrica*, *9*, 278–282.
Passel, J. S., Cohn, D., & Gonzalez-Barrera, A. (2013). *Population decline of unauthorized immigrants stalls, may have reversed*. Washington, DC: Pew Research Center.
Passel, J. S., Cohn, D., Krogstad, J. M., & Gonzalez-Barrera, A. (2014). *As growth stalls, unauthorized immigrant population becomes more settled*. Washington, DC: Pew Research Center.
Pew Research Center (2013). *A nation of immigrants: A portrait of the 40 million, including 11 million unauthorized*. Washington, DC: Pew Research Center, Hispanic Trends Project.
Phelan, J. C., Lucas, J. W., Ridgeway, C. L., & Taylor, C. J. (2014). Stigma, status, and population health. *Social Science & Medicine*, *103*, 1–13.
Raanan, R., Harley, K. G., Balmes, J. R., Bradman, A., Lipsett, M., & Eskenazi, B. (2014). Early-life exposure to organophosphate pesticides and pediatric respiratory symptoms in the CHAMACOS cohort. *Environmental Health Perspectives*, *123*, 179–185.
Raposo, S. M., Mackenzie, C. S., Henriksen, C. A., & Afifi, T. O. (2014). Time does not heal all wounds: Older adults who experienced childhood adversities have higher odds of mood, anxiety, and personality disorder. *The American Journal of Geriatric Psychiatry*, *22*, 1241–1250.

Raymond-Flesch, M., Siemons, R., Pourat, N., Jacobs, K., & Brindis, C. D. (2014). "There is no help out there and if there is, it's really hard to find": A qualitative study of the health concerns and health care access of Latino "DREAMers". *Journal of Adolescent Health*, *55*, 323–328.

Reed, M. M., Westfall, J. M., Bublitz, C., Battaglia, C., & Fickenscher, A. (2005). Birth outcomes in Colorado's undocumented immigrant population. *BMC Public Health*, *5*, 1–7.

Rhodes, S. D., Mann, L., Simán, F. M., Song, E., Alonzo, J., Downs, M., et al. (2015). The impact of local immigration enforcement policies on the health of immigrant Hispanics/Latinos in the United States. *American Journal of Public Health*, *105*, 329–337.

Rivera, F. I., Guarnaccia, P. J., Mulvaney-Day, N., Lin, J. Y., Torres, M., & Alegria, M. (2008). Family cohesion and its relationship to psychological distress among Latino groups. *Hispanic Journal of Behavioral Sciences*, *30*, 357–378.

Robinson, L. K. (2015). Arrived: The crisis of unaccompanied children at our Southern border. *Pediatrics*, *135*, 205–207.

Ross, C. E., & Wu, C. L. (1996). Education, age, and the cumulative advantage in health. *Journal of Health and Social Behavior*, *37*, 104–120.

Schlotz, W., & Phillips, D. I. (2009). Fetal origins of mental health: Evidence and mechanisms. *Brain Behavior and Immunity*, *23*, 905–916.

Serbin, L. A., & Karp, J. (2004). The intergenerational transfer of psychosocial risk: Mediators of vulnerability and resilience. *Annual Review of Psychology*, *55*, 333–363.

Shonkoff, J. P., & Garner, A. S. (2012). The lifelong effects of early childhood adversity and toxic stress. *Pediatrics*, *129*, e232–e246.

Suárez-Orozco, C., Yoshikawa, H., Teranishi, R. T., & Suárez-Orozco, M. (2011). Growing up in the shadows: The developmental implications of unauthorized status. *Harvard Educational Review*, *81*, 438–473.

Tichenor, D. J. (2002). *Dividing lines: The politics of immigration control in America*. Princeton, NJ: Princeton University Press.

Toomey, R. B., Umaña-Taylor, A. J., Williams, D. R., Harvey-Mendoza, E., Jahromi, L. B., & Updegraff, K. A. (2014). Impact of Arizona's SB 1070 immigration law on utilization of health care and public assistance among Mexican-origin mothers and their mother figures. *American Journal of Public Health*, *104*, S28–S34.

Torres, J. M., & Waldinger, R. (2015). Civic stratification and the exclusion of undocumented immigrants from cross-border health care. *Journal of Health and Social Behavior*, *56*, 438–459.

Vargas Bustamante, A., Fang, H., Garza, J., Carter-Pokras, O., Wallace, S. P., Rizzo, J. A., et al. (2012). Variations in healthcare access and utilization among Mexican immigrants: The role of documentation status. *Journal of Immigrant and Minority Health*, *14*, 146–155.

Viner, R. M., Ozer, E. M., Denny, S., Marmot, M., Resnick, M., Fatusi, A., et al. (2012). Adolescence and the social determinants of health. *Lancet*, *379*, 1641–1652.

Viruell-Fuentes, E. A. (2007). Beyond acculturation: Immigration, discrimination, and health research among Mexicans in the United States. *Social Science & Medicine*, *65*, 1524–1535.

Viruell-Fuentes, E. A., Miranda, P. Y., & Abdulrahim, S. (2012). More than culture: Structural racism, intersectionality theory, and immigrant health. *Social Science & Medicine*, *75* 2099-2016.

Wallace, S. P., Torres, J. M., Nobari, T. Z., & Pourat, N. (2013). *Undocumented and uninsured: Barriers to affordable care for immigrant populations*. New York, NY: The Commonwealth Fund.

Walter, N., Bourgois, P., & Loinaz, H. M. (2003). Masculinity and undocumented labor migration: Injured Latino day laborers in San Francisco. *Social Science & Medicine*, *59*, 1159–1168.

Yoshikawa, H. (2011). *Immigrants raising citizens: Undocumented parents and their young children*. New York: Russell Sage Foundation.

Zuckerman, S., Waidman, T. A., & Lawton, E. (2011). Undocumented immigrants, left out of health reform, likely to continue to grow as share of the uninsured. *Health Affairs*, *30*, 1997–2004.