

UCLA

UCLA Previously Published Works

Title

Policy dilemmas in Latino health care and implementation of the Affordable Care Act.

Permalink

<https://escholarship.org/uc/item/5fs3s1mr>

Journal

Annual review of public health, 36(1)

ISSN

0163-7525

Authors

Ortega, Alexander N
Rodriguez, Hector P
Vargas Bustamante, Arturo

Publication Date

2015-03-01

DOI

10.1146/annurev-publhealth-031914-122421

Peer reviewed

Policy Dilemmas in Latino Health Care and Implementation of the Affordable Care Act

Alexander N. Ortega,¹ Hector P. Rodriguez,²
and Arturo Vargas Bustamante¹

¹Department of Health Policy and Management, Fielding School of Public Health, University of California, Los Angeles, California 90095-1772; email: aortega@ucla.edu, avb@ucla.edu

²Division of Health Policy and Management, School of Public Health, University of California, Berkeley, California 94720-7360; email: hrod@berkeley.edu

Annu. Rev. Public Health 2015. 36:525–44

First published online as a Review in Advance on January 7, 2015

The *Annual Review of Public Health* is online at publhealth.annualreviews.org

This article's doi:
10.1146/annurev-publhealth-031914-122421

Copyright © 2015 by Annual Reviews.
All rights reserved

Keywords

Hispanic Americans, Medicaid, access to care, quality of care, community health centers

Abstract

The changing Latino demographic in the United States presents a number of challenges to health care policy makers, clinicians, organizations, and other stakeholders. Studies have demonstrated that Latinos tend to have worse patterns of access to, and utilization of, health care than other ethnic and racial groups. The implementation of the Affordable Care Act (ACA) of 2010 may ameliorate some of these disparities. However, even with the ACA, it is expected that Latinos will continue to have problems accessing and using high-quality health care, especially in states that are not expanding Medicaid eligibility as provided by the ACA. We identify four current policy dilemmas relevant to Latinos' health and ACA implementation: (*a*) the need to extend coverage to the undocumented; (*b*) the growth of Latino populations in states with limited insurance expansion; (*c*) demands on public and private systems of care; and (*d*) the need to increase the number of Latino physicians while increasing the direct patient-care responsibilities of nonphysician Latino health care workers.

INTRODUCTION

Latinos comprise a very diverse demographic in the United States, largely because they originate from many different parts of the world, particularly Latin America and the Caribbean. Mexicans and Mexican Americans make up the largest subgroup of Latinos, accounting for 64%; they are followed by those with a Puerto Rican background, who account for 9.4%, Salvadorans at 3.8%, Cubans at 3.7%, Dominicans at 3.1%, and Guatemalans at 2.3% (102). Altogether, at 17% of the total US population, Latinos currently make up the largest ethnic minority group, and the percentage is expected to increase to almost 30% by 2050 (96). But intermingled with the projections of Latino population growth is concern about access to health care among Latinos. Research has consistently documented that Latinos have the lowest rates of health insurance coverage and are less likely to report having a usual source of care than other groups (147); consequently, Latinos are likely to be disproportionately affected by the Affordable Care Act (ACA) of 2010.

Although Latinos make up a large proportion of the population of minorities in states with long histories and traditions of Latino immigration and settlement, such as California, Texas, and Florida, Latino populations are rapidly growing in new destinations where 20 years ago there were only small proportions of Latinos, such as in the South and Midwest, in Alabama, South Carolina, Tennessee, and Kentucky (14). Nebraska, for example, is expecting its Latino population to triple by 2050 (125). These trends highlight the rapid growth of the Latino population in new destinations where Latino political organization is less well established and there is less Latino community social capital. The growth of the Latino population in such states has challenged stakeholders in local public health systems because community health needs tend to shift with demographic changes (4). For example, on average, Latinos are younger and tend to have larger families when compared with other ethnic and racial groups, so local public health delivery systems must grapple with competing demands for services to prevent and manage chronic conditions for non-Latino populations and to provide maternal and child health services to new and growing underserved Latino populations (52, 148). Furthermore, in many communities with recent Latino settlements, new arrivals tend to be more segregated compared with Latinos in more established Latino communities, and such segregation has been shown to lead to worse health-related quality of life and higher risk and prevalence of mental health problems among Latinos in new destinations (27, 116).

Some informative reviews have been published recently describing the health needs of the Latino population and the roles that acculturation and intergenerational status have in predicting morbidity and mortality (74, 140). These reviews consistently point to the roles that language use, national origin, citizenship and documentation status, family income level, and geographical access to health care have in shaping health status among Latino populations. Another important empirical study has pointed to the critical parts that having access to health insurance and a usual source of care play in ameliorating health disparities among Latinos (132).

To our knowledge, reviews of the health of Latinos in the United States have not synthesized the empirical evidence central to the challenges and dilemmas of enacting health care policies relevant to Latinos that will be faced by public health delivery systems as the ACA unfolds differently across states and communities with high proportions or fast growth rates of Latinos. Understanding the ACA's potential impact on Latinos is essential for crafting policies to improve the uptake of insurance among Latinos and to reduce health disparities. Moreover, as states and local health services organizations begin to implement the ACA, it is important for them to consider the needs of newly insured Latinos so that evidence-based preventive care and interventions for chronic illness care can be most effectively delivered to improve health outcomes.

Four primary health-policy dilemmas will likely come to the forefront of health care policy as immigration to the United States from Latin America continues at a steady pace, and Latinas continue to contribute to the share of annual US births (71). Mixed eligibility for health insurance within families is likely to be common due to differences in parental or spousal employment and documentation status. This could create barriers within families to accessing health care and lead to members of the same family receiving uncoordinated care across settings. In the future, the largest contributors to mixed eligibility within families will likely be policies related to legal authorization. It is estimated that there are close to 12 million undocumented people living in the United States (97); the vast majority of these individuals are from Mexico or other Latin American countries. However, the states with the largest relative increases in Latino populations are those that do not provide state-funded coverage (28) for low-income residents as part of the ACA. Another major policy dilemma is that the ACA explicitly excludes undocumented immigrants from benefiting from either the insurance exchanges or the federal Medicaid expansion program. This exclusion is likely to create a number of problems for local health care and public health systems, particularly since undocumented immigrants often delay seeking care, likely resulting in worse population-level morbidity and mortality, and in more costly care relative to insured patients. Moreover, covering those who are undocumented may reduce the negative externalities associated with communities that have large shares of uninsured people (95, 100). Given the relatively young age and healthy profiles of undocumented individuals, extending the eligibility guidelines for ACA insurance exchanges or Medicaid expansion could help offset the anticipated high costs of managing other patients with multiple chronic conditions (105).

In this article, we provide a review of the recent literature on health care policy and health services affecting Latinos and relevant to understanding the rollout and impact of the ACA on Latinos' health. Throughout this review, we identify the four current major policy dilemmas facing policy makers, public health practitioners, health care organizations, and other stakeholders that have the most significant potential to impact disparities in health care for Latinos.

HEALTH CARE ACCESS AND UTILIZATION TRENDS FOR LATINOS

Latino Adults

Studies consistently document that Latinos tend to have worse access to health care, experience worse morbidity as a result of lack of care or treatment, and receive poorer quality care when compared with non-Latino whites (2, 7, 78, 110). Many factors are associated with the disparities in access to, and use of, high-quality health care by Latinos. For instance, Latinos, compared with non-Latino whites, have low rates of insurance coverage, usually as a result of having noncitizen status or low-wage employment that does not provide employer-based health insurance; have worse geographical access to care, usually because of migrating or living in agricultural or otherwise rural areas; and receive less comprehensive or patient-centered care, usually because of language discordance between monolingual Spanish-speaking Latinos and their health care providers (129, 135).

Most studies of health care disparities have combined Latino subgroups together when comparing them with other racial and ethnic groups (33, 56, 67, 141). However, disparities in insurance and access to care differ by subgroup. For instance, Puerto Ricans born on the island are US citizens by birth, which facilitates circular migration and enables them to qualify for certain federal and state health programs (e.g., Medicare and Medicaid); Cuban immigrants benefit from having refugee status in the United States, and that allows them to access Medicaid benefits (134, 135).

Recent research has examined differences in health care access and utilization across subgroups of Latinos in national and regional samples. These studies have highlighted the significant differences between Mexican-origin and non-Mexican-origin Latinos in terms of health care access and utilization, insurance coverage, health spending, and the utilization of preventive care, after adjusting for socioeconomic and demographic differences—such as age, income, health, insurance status, and region of residence, as well as other predisposing, enabling, and need factors (129, 132, 135). The findings are that Mexican-origin Latinos fare worse.

Latinos of Mexican origin represent not only the majority of Latinos in the United States but also the majority of undocumented immigrants. Therefore, researchers have investigated disparities in health care access and utilization between US-born Mexican Americans and Mexican immigrants according to documentation status (7, 17, 45, 93, 105, 133, 135). These studies have found trends of improving access and utilization as legal status changes—for instance, going from being undocumented to having a permanent visa to being a citizen—for Latinos of Mexican origin as well as for other Latinos (93). These findings suggest that strengthening pathways to citizenship would substantially reduce the overall barriers to care experienced by undocumented Latinos.

Access to and Utilization of Child Health Services

US Latinos also make up the largest minority group of children and adolescents. Census data show Latinos comprising 22% (16 million) of the US population under the age of 18 years (32). Consistent with studies that have shown that Latino adults and the elderly are less likely to access and utilize health care compared with non-Latino whites and other groups (17, 25, 72, 77, 93, 142), studies have also revealed that Latino youth experience barriers to access and are less likely to utilize health services compared with youth from other racial and ethnic backgrounds (29, 30, 103). In particular, youth who have Mexican-origin parents with low English-language proficiency have worse access to, and lower utilization of, health services and have worse experiences in primary care than children whose parents speak English well or are otherwise more acculturated (13, 35, 50, 94, 103, 126).

The ACA may help to assuage health care disparities among children, but families' immigration status may complicate both eligibility and access. Approximately 37% of undocumented adults are parents of children who are US citizens; these families are known as mixed-status families (99). Families with mixed status are allowed to apply for the federal Medicaid expansion program in states that are participating or for a premium subsidy tax credit or for subsidized out-of-pocket expenses for a marketplace silver plan for dependent family members who are eligible. A major perceived barrier to enrolling in Medicaid or a marketplace plan is fear of deportation or that one's residency status or eligibility for citizenship might be jeopardized. The federal government has issued assurances that information provided by applicants or beneficiaries will not be used for immigration enforcement or impact one's chances of becoming a legal resident or citizen (126). However, given the aggressive deportations that have occurred over the past decade (80), additional education and outreach by trusted sources will be needed to improve the uptake of health insurance among eligible Latino families with mixed immigration status. Indeed, the relatively low enrollment of Latinos in early efforts to expand ACA health insurance coverage highlights the fact that merely offering affordable insurance to Latinos does not mean that they will enroll or benefit (12).

Access and Utilization Trends by Documentation Status and English-Language Proficiency

When compared with non-Latino whites, Latino immigrants are two times more likely to underutilize health care and are more likely to receive low-quality care even after adjustment for

important factors such as federal poverty level, health insurance coverage, employment status, and health status (55, 78, 93, 105, 110, 133, 135, 142). One reason for this is that a much higher proportion of Latinos (38.1%) are foreign-born compared with non-Latino blacks (7.7%) and whites (3.9%) (28, 89). Furthermore, documentation status compounds the foreign-born status of Latinos because the undocumented population from Latin America has been growing rapidly since the early 1990s. Additionally, undocumented Latinos represent the vast majority of all undocumented immigrants (80%) (6).

For undocumented Latino immigrants, barriers to accessing health care are severe, with approximately 57% lacking health insurance (48, 133). Studies have analyzed the effect of documentation status on health care access and utilization (8, 9, 39, 42, 43, 65, 93, 105). The main predictors of access and utilization among undocumented immigrants are sex, marital status, level of educational attainment, poverty status, health insurance coverage, length of time in the United States, deportation fears, peer effects, the availability of a safety net, and a lack of familiarity with the US health care system (79, 87, 93, 133).

Latino immigrants face other challenges in securing health care coverage. Because treatment at emergency departments is available to all immigrants regardless of their status under the Emergency Medical Treatment and Labor Act, the law has had the unintended consequence of discouraging immigrants from seeking primary care in favor of utilizing emergency departments, which is more costly for users and taxpayers. Latino immigrants with limited access—or no access—to a usual source of care tend to delay seeking services and tend to be diagnosed with chronic conditions at a later disease stage or remain unaware of their disease (5, 73, 133), which can result in deteriorating health (19). When these conditions progress unchecked, they are likely to require more aggressive, invasive, and costly interventions as acute treatment becomes necessary, if they are treated at all (155).

For Spanish-speaking populations with limited English proficiency in the United States, language barriers can affect the quality of care due to poor communication with physicians and health care professionals (78). As a result, there may be deficient or inaccurate transfers of important information, such as details of disease symptoms, the consequences of treatment or lack of treatment, and medication regimens, all of which may lead to ineffective disease management or prevention (34). Delays in receiving treatment, coupled with the need for larger numbers of effective medical interpreters and culturally and linguistically competent providers, make Latinos more vulnerable and potentially more expensive to treat than other racial and ethnic groups with better English-language proficiency (120).

IMPACT OF THE ACA ON LATINOS

Signed into law in 2010, the ACA has started to provide affordable health insurance to millions of uninsured individuals (54, 84–86, 121). Recent analyses of the expansion of health insurance coverage in states that were among the first to implement their own marketplaces suggest that reducing the number of people who were uninsured also reduced mortality and improved health status among those who had previously been uninsured (84–86, 121). Thus, given the low rate of insurance coverage among Latinos, US-born and legally authorized Latinos and their families are likely to realize health benefits from the legislation. Indeed, it is estimated that one in four of the uninsured who are eligible for the ACA Medicaid expansion program or health insurance marketplace are Latino (126). Approximately 10.2 million uninsured Latinos are newly eligible for coverage, and, of those, 8 million qualify for Medicaid or for subsidized premiums for plans purchased through the exchange marketplace (126). As of December 2014, 28 states including Washington, DC, are expanding eligibility for Medicaid under the ACA, with 2 more set to

expand their programs by 2015. It has been estimated that if all states were to participate in the Medicaid expansion program, 95% of uninsured Latinos would qualify for Medicaid or tax credits to help with premiums in the marketplaces (126).

The 2012 ruling by the US Supreme Court that made ACA Medicaid expansion voluntary for state governments is likely to affect Latinos in most states who are eligible for Medicaid benefits, with few exceptions. According to the Congressional Budget Office, approximately 3 million fewer individuals will have insurance as a result of the court's decision (23). Thus, low-income Latino immigrants (with incomes at or below 133% of the federal poverty level) who have been in the United States for fewer than 5 years and those who live in states where Medicaid coverage is not being expanded will face challenges purchasing the health insurance coverage mandated by the ACA. These immigrants will either have to pay a penalty or purchase coverage through the marketplaces (1).

Recent immigrants, both documented and undocumented, face even greater difficulties obtaining coverage. The exclusion of undocumented immigrants from the ACA has been widely publicized (155). However, the ACA also kept in place the exclusion from Medicaid eligibility for documented immigrants who have been resident in the United States for fewer than 5 years, which was introduced as part of the 1996 Personal Responsibility and Work Opportunity Reconciliation Act, also known as welfare reform (66, 154). Under the existing rules, documented immigrants with fewer than 5 years of US residency are ineligible for coverage by the ACA expansion of Medicaid programs in those states that offer it, with the exception of political refugees, who are exempted from the 5-year waiting period. Furthermore, in some of the states that have chosen not to expand Medicaid, some of the poorest documented Latino immigrants are able to access the marketplaces if their incomes fall below the federal poverty level, but they are not eligible for tax credit subsidies (130). With such low incomes, it is unlikely that they will purchase a marketplace plan without the tax credit subsidies.

PRIMARY CARE INTEGRATION AND THE HEALTH OF LATINOS

Community Clinics and Health Centers

Latinos account for more than 35% of patients at community clinics and health centers (CHCs) nationally, and they are the majority of CHC users in many states. CHCs are mission-driven organizations that are widely viewed as providers of culturally competent care. Because of their specialized knowledge about treating underserved populations, they are thought to play an important role in eliminating racial and ethnic disparities in care quality and health outcomes (118).

The ACA increases the funding available to the more than 1,200 federally qualified health centers (FQHCs) that have 8,000 delivery sites; this is intended to more than double the number of patients served by these clinics with on-site supportive services, such as mental health care and substance abuse counseling (61, 63). Many clinics have used this funding to open and operate new sites for primary care practices in medically underserved areas, to expand access to primary care to additional medically underserved communities, and to support major construction and renovation projects. Using some of this increased funding to augment personnel in FQHCs should improve the supply of health care personnel in underserved areas and improve the infrastructure for health care delivery to Latinos left out of the ACA and to newly insured Latinos. Increasing the supply of primary care personnel, particularly allied health workers, would improve follow-up care, support the self-management of chronic diseases, and, through improving clinic infrastructure to enhance performance, may potentially create incentives for a more equitable distribution of primary health care and specialty services.

As previously noted, the ACA does not include health-insurance coverage options for undocumented immigrants, and legally authorized immigrants who have been in the United States for fewer than 5 years have limited options and are excluded from Medicaid. Consequently, as implementation of the ACA unfolds, FQHCs that serve large numbers of such individuals will be challenged with balancing their mission to care for the most vulnerable low-income patients while remaining financially solvent. Currently, FQHCs receive grants under Section 330 of the Public Health Service Act. FQHCs care for large numbers of undocumented immigrants, and they receive benefits to fund the uninsured from federal grants administered by the US Health Resources and Services Administration's (HRSA's) Bureau of Primary Health Care. As the ACA is implemented and the eligible uninsured population takes up health insurance, HRSA's resources will be critical for ensuring that primary care is delivered to the remaining uninsured people. However, these services will become increasingly politically tenuous as undocumented populations account for higher proportions of uninsured FQHC users over time. It remains unclear how FQHCs and other CHCs will continue to provide care for those who remain uninsured. Research has highlighted the fact that physicians caring for high proportions of Latino patients report more barriers to providing high-quality care and more challenges in obtaining timely specialty referrals for their patients (57, 128). Without supplemental funding to aid CHCs in caring for undocumented and recently migrated legally authorized immigrants, these challenges are likely to be exacerbated for some CHCs.

In spite of these constraints, recent evidence suggests that insured patients (those with Medicaid, Medicare, or private insurance) receiving care at CHCs receive care for chronic diseases that is comparable in quality to that received by patients in other settings (36, 117). However, substantial quality deficits have been observed for uninsured CHC patients (64, 153), presumably because they are less integrated into a usual source of care.

Other Health Care Institutions Serving Latinos

Importantly, the ACA will allow previously uninsured patients to choose to receive care in private health care settings, including care from smaller practices and integrated delivery systems. Although low-income Latino patients will have new options for private insurance and this may broaden the provider networks available to them, many who benefited from the expertise of providers skilled in caring for low-income patients will opt for health plans that do not include traditional safety-net providers because these providers are often not part of private health plans' networks. However, it is still too early to know whether most newly insured Latinos will retain their clinical relationships with those who have traditionally provided care for the underserved. Recent evidence suggests that the large private health insurance companies in California, such as Blue Cross, Blue Shield, Kaiser Permanente, and Health Net, have dominated consumers' choices in the health insurance marketplace. In the first year of the marketplace in California, local, public, not-for-profit managed health care plans—the traditional insurance options that have contracted with CHCs and other safety-net providers to care for low-income residents—did not fare well in terms of enrollment and may not be sustainable over time (124). CHCs and other traditional providers of care for Latinos run the risk of insolvency if they do not retain their insured Latino patients and if only limited funding is available to provide ongoing care for the remaining uninsured patients whom they serve.

However, the small physician practices and integrated systems that low-income Latino patients choose may not be equipped to handle a preference for language-concordant care and the nonmedical needs of low-income patients because few supportive services and language services are available to patients in these settings (106), such as the proactive maternal and child health

services that are central to CHC care, *promotora* or community health worker programs, and other supportive services for self-management.

Cross-Border Health Care

Ethnographic work has shown that due to geographical proximity, Mexicans living in the United States usually return to Mexico to receive some health care interventions (16). One study found that approximately 1 million adults in California use medical, dental, or prescription services in Mexico, and nearly half of these are Mexican immigrants living in the United States (143). Another study found that Mexican immigrants in the United States return to Mexico regularly to receive hospital care for serious illnesses as a response to having limited access to care in the United States (44). The main predictors of health care use in Mexico are health need, lack of health insurance coverage in the United States, employment status, delays in seeking care, more recent immigration, limited English proficiency, and the need for prescription drugs (45, 131, 137). Additionally, cultural factors, such as language and providers' attitudes, influence decisions about whether to utilize health care south of the border (128, 138).

Policy makers, practitioners, and researchers in both the United States and Mexico have examined the transnational flow of Mexicans and Mexican Americans who utilize health care in the United States and in Mexico, and the financing of their dependents' health care in Mexico (3, 45, 75, 76, 136). Because health care costs in Mexico are 70–90% lower than they are in the United States, cross-border insurance coverage aims to provide more affordable insurance products to uninsured or underinsured Mexican Americans utilizing, at least in part, coverage in Mexico (45, 137). Currently, California is the single state where health insurers can operate in conjunction with insurers in Mexico. This was accomplished through the amendment of the Knox–Keene Health Care Service Plan Act in 1998. Three private US insurance companies and one insurance group from Mexico are licensed to offer this type of coverage (136). Providers in California offer a variety of plans with options that range from managed care coverage (health maintenance organizations or preferred provider organizations) to only emergency coverage (146).

Currently, millions of US Latinos often travel across the Mexico border to utilize health care due to financial, cultural, and personal factors (16, 123, 143). Latinos left out of the ACA who are able to cross the border and are in geographical proximity to the border can rely on care south of the border while they wait to qualify for ACA-related coverage. Binational health insurance plans may represent an option for providing affordable and high-quality health care for underserved Latino immigrants who will continue to face obstacles accessing care after the ACA is implemented. Funding for this type of program may be limited if the cost is not shared among employers, governments, and nongovernmental organizations.

However, whether cross-border health care is utilized will depend on the success of ACA implementation among current users of care in Mexico who are eligible for expanded Medicaid coverage or who are able to purchase care in the health insurance exchanges. If the ACA is successful and effectively expands coverage to currently uninsured and underinsured Latinos in the United States, cross-border health utilization in Mexico may decline because barriers to accessing care would be largely addressed. By contrast, if the ACA is unsuccessful and it is unable to attract enough Latinos, even if they are eligible, then United States–Mexico cross-border utilization of health care will continue to increase (98).

Quality of Chronic Illness Care for Latinos and ACA Implementation

Greater access to care resulting from implementation of the ACA is also likely to impact the quality of chronic illness care that Latinos receive. Compared with other Americans, Latinos are less likely

to receive evidence-based care and more likely to have chronic diseases, such as diabetes, cancer, and HIV/AIDS (132). Research consistently has highlighted the fact that health care settings that primarily care for Latino patients operate under resource constraints, and this may impact the quality of care Latinos receive and their experiences with such care (109, 139). An estimated one-third of Latinos with diabetes lack health insurance, and most report problems in their experiences with health care, including being frustrated about the lack of information provided and confused about the information provided by clinicians (107). CHCs care for more than 40% of the Latino population with diabetes in the United States, and they play a critical part in combating disparities in diabetes care in the Latino population (20).

The differences in care for diabetes experienced by Latinos and non-Latino whites represent one of the largest observed health disparities (151), with Latinos often receiving suboptimal treatment. For example, Latinos are less likely than non-Latino whites to receive appropriate hemoglobin A1c and lipid screening (83, 91), and they are less likely to achieve treatment goals, including glycemic, cholesterol, and blood pressure control (15, 58, 62, 114). Studies have underscored the importance of the quality of clinician–patient communication and patient participation in promoting treatment adherence (26, 47, 112, 115, 122). Suboptimal adherence among patients with diabetes can result in high-cost complications including retinopathy (59), incident myocardial infarction, stroke, congestive heart failure, and nontraumatic lower extremity amputation (68). Differences in the quality of care appear to be largely attributable to the fact that Latinos are cared for in settings where communication and the quality of care are not especially patient-centered (109). Focusing on efforts to improve delivery systems for Latinos will likely reduce disparities in patients' experiences and the quality of primary care received.

The comorbidity of diabetes and depression is common among Latino adults, with some studies finding upwards of 30% of Latino patients with diabetes also having clinical depression compared with 7.1% of non-Latino whites with diabetes and depression (22, 31, 60). Importantly, Latinas, in general, tend to have worse diet-related behaviors when compared with non-Latinas, including consuming more fast food, sugar-sweetened beverages, and fried potatoes (92). A recent self-management intervention study that was targeted toward Latinos with comorbid diabetes and depression and that had a large sample of Latinas yielded clinically significant improvements in dietary behaviors (144). Latino men are majorly underrepresented in clinical trials of diabetes care interventions; thus, little is known about effective, sex-appropriate and culturally appropriate self-management for Latino men, who tend to have a higher risk of complications from diabetes compared with women and non-Latino men (37). Because cardiovascular complications from diabetes are a major contributor to morbidity and mortality among Latinos, implementing additional innovations in self-management education in resource-limited settings has the potential to reduce disparities in diabetes complications.

Preventive Care for Latinos and ACA Implementation

Implementation of the ACA will also make preventive care more affordable and accessible for Latinos because the provisions require most health insurance plans to cover prevention and wellness benefits with no cost-sharing (46, 101, 113). Such preventive benefits include well-child visits, blood pressure and cholesterol screenings, Pap smears and mammograms for women, and flu shots for both children and adults. Pap smears are especially important to ensure early detection of cervical cancer among Latinas, who contract cervical cancer at twice the rate of their non-Latino white counterparts (69, 111). Recent analyses have suggested that expanding health insurance coverage may help to narrow the gap in the provision of preventive health care services for Latinos. However, lower rates of use for several preventive services are likely to persist even

with the insurance expansions mandated by the ACA. For example, smoking cessation advice, colorectal cancer screening, and influenza vaccination, which are the most cost-effective preventive health services (82), are inconsistently provided to Latinos qualifying for these interventions, and these disparities are largely unexplained by differences in insurance coverage between Latinos and non-Latino whites (132). To improve the provision of preventive services, it will be critical to improve patient education and the structural capabilities of primary care practices (38), including the use of reminder systems as well as performance reporting and feedback. Given the limited data on the care-management processes used by safety-net practices, it remains largely unclear what the best strategies are for ensuring access to evidence-based preventive care and chronic illness care processes.

DISCRIMINATION AND SEGREGATION

Discrimination Against Latinos in Health Care Settings

Given the evidence that deficits in the quality of care for chronic illnesses and preventive care are not fully explained by differences in patients' insurance and sociodemographic factors, much attention has recently focused on implicit biases that providers have about Latino patients. In one study, approximately two-thirds of primary care providers demonstrated implicit biases against Latinos even as they explicitly reported egalitarian attitudes toward the group (10). The results of this study underscore the idea that clinicians' attitudes can contribute to differential treatment patterns.

Research has also found that clinicians often have implicit biases about the intelligence of their Latino patients and preconceived notions about their level of treatment adherence due to assumptions about their educational attainment and cultural backgrounds (11).

Segregation and the Health of Latinos

Intertwined with the neighborhood-based health care provided by safety-net organizations such as CHCs are the social environments and everyday stressors that contribute to the disparities Latinos experience in their health. Many Latinos live in segregated neighborhoods or ethnic enclaves and receive primary care at CHCs (41, 53, 70), public hospitals, and small physician offices in their neighborhoods. Recent studies have explored the extent to which greater concentrations of Latinos in neighborhoods result in community social capital and, by extension, better health for Latino residents (18). For example, residing in a Latino ethnic enclave appears to confer a health benefit to Latino adolescents, including less depression among adolescent Latinas (149); lower obesity among adult Latinas (70); and fewer externalizing symptoms, such as aggression, angry outbursts, breaking the law, and hyperactivity among adolescent Latinos (150). Hypotheses used to explain the health benefit of living in an ethnic enclave include making a greater investment in community institutions, using the Spanish language, engaging in political activity, having social support, experiencing less discrimination, and having less stress (70).

Ethnic enclaves and segregated health care, however, can be a liability for the welfare of Latino communities in the context of ACA implementation because segmentation of the health care market and residential segregation may exacerbate underinvestment in social, health, and educational services in communities with high proportions of undocumented Latinos (127). It is unclear to what extent the negative externalities of high rates of uninsurance in a community will affect the insured (95, 100); these negatives may include higher prices, lower quality of care, and worse patient experiences of care. This is especially relevant for insured Latinos because they tend to live in communities with high rates of uninsurance.

LATINOS IN THE HEALTH CARE WORKFORCE

As the Latino population in the United States continues to grow, the issue of cultural competency in health care delivery has become a high-priority concern for health policy. Currently, most US medical schools and residency programs offer training in cultural competency. One recent study found that language interpretation services are being offered more frequently than 10 years ago, albeit at only a modestly higher rate (24). A California study also found that a lack of health insurance was a major barrier preventing Spanish-speaking patients from obtaining language-concordant care (152).

Language, however, is only one dimension of cultural competency, especially given the varying levels of acculturation and other demographic differences among Latinos (e.g., employment, education, geographical location, refugee status, citizenship). One response to the need to raise awareness and integrate cultural competency into health care delivery has been to increase the number of Latinos in the health care workforce. There have been wide-ranging efforts to increase the number of minority students in the academic and clinical pipelines in medical schools, but most of these programs have had limited success (51, 90). Moreover, the proportion of medical students who are Latino remains relatively small, at approximately 7%, although this has increased from a low of 5% in the 1980s (40). There are similar trends in nursing (21). With the implementation of the ACA, medical schools are being pushed to increase admission and graduation rates, and federal incentives are being provided to medical centers to increase the capacity of primary care training programs as well as increase the number of trainees enrolled in these programs, with a goal of having more providers working in medically underserved areas (81). Given that a disproportionate share of nonphysician clinicians, such as physicians' assistants and nurse practitioners, deliver care to Latino and other underserved populations, training programs for health professionals other than in medical schools are also aiming to increase the representation of minority students and to encourage and incentivize their graduates to serve in underserved communities (49).

In addition to expanding access to care, the ACA expands reimbursement for select health care services provided by nonphysician clinicians, such as community health workers and medical assistants who work under physicians' standing orders (88), which authorize staff to carry out medical orders per practice-approved protocols without a clinician's examination. Latinos are well represented in these professions, and the ACA provides funding opportunities to increase the number of Latinos who provide direct services and to enhance their professional development. Moreover, these professionals tend to practice in their communities and are less transient than physicians and other clinicians who may find more lucrative opportunities in private practice. Consequently, Latino health care workers may more effectively ensure a continuity of care between patients and primary care practices. This is an important benefit given that many primary care physicians are expected to eventually leave their community practices after their National Health Service Corps obligations have been completed (119).

THE STATE OF INQUIRY INTO LATINO HEALTH CARE, AND FUTURE DIRECTIONS

Research on health care among Latinos faces methodological limitations similar to those faced by the overall field in trying to assess racial or ethnic disparities in health care. These limitations include omitted-variable bias, which originates in the difficulty of capturing some cultural and idiosyncratic factors that may potentially explain racial or ethnic disparities; measurement errors related to issues of English-language fluency; the challenges of reaching out to the diversity of Latino populations; and the lack of a holistic view that considers the multilevel interaction of

patient, provider, and system factors that explains such disparities (120). Some of the methodological challenges have been addressed through the use of statistical techniques, such as the Blinder–Oaxaca decomposition, which estimates the share of observed and unobserved factors explaining disparities (132), and the use of multilevel models that incorporate a more comprehensive set of individual and organizational factors linked to disparities in the quality of care and patients' experiences (108).

Research into health care disparities affecting Latinos will likely change rapidly during the next two decades because of two important policy and sociodemographic changes. First, the implementation of the ACA will provide new topics of inquiry, such as the identification of new areas of disparities in health care including those between eligible and ineligible Latino populations (e.g., documented versus undocumented immigrants) as well as those within eligible populations. For example, research may seek to identify whether disparities persist among newly insured Latinos enrolled in health insurance exchanges or in Medicaid compared with other populations. Second, the Latino population in the United States is expected to double during the next two decades. However, at the same time that the Latino population is increasing, there will be substantial changes in its composition. Since 2011, the growth of the Latino population has been primarily attributable to births in the United States and not to international immigration as it was in the past (104). Latinos are also more likely to intermix compared with other racial or ethnic groups, contributing to the diffusion of the Latino construction as a comparison category (145). These factors will present a new set of methodological challenges that will need to be addressed by researchers focusing on health and health care among Latinos in the interest of reducing disparities for the most vulnerable Latino populations.

CONCLUSIONS

The impact of the ACA on improving the health of Latinos depends on the extent of the uptake of ACA health insurance among eligible Latinos, continued investment in improving health care delivery systems that serve high proportions of US Latinos (such as FQHCs and other CHCs), and the strength and coordination of efforts to reduce the disparities experienced by Latinos in gaining access to and receiving high-quality preventive care and care for chronic illnesses. The uneven implementation of the ACA across states, particularly in those states with high proportions of Latinos or high rates of Latino immigration, or both, presents an important opportunity to conduct natural experiments of the impact of the ACA on Latinos' access to health care and its quality, and patients' experiences.

Our review highlights four important health-policy dilemmas that must be faced to improve health and health care among Latino populations in the United States. First, extending health insurance coverage to undocumented immigrants, although politically challenging, can narrow the disparities and improve utilization and access. Importantly, including undocumented Latinos in health insurance markets will improve the case-mix of insurance pools, thereby improving the stability of the insurance market and future premiums. At the same time that insurance expands, federal resources that enable safety-net clinics and public hospitals to continue providing care for those who are uninsured will erode and the availability of a safety net for undocumented Latinos remains uncertain. Second, the new growth of the Latino population is heavily concentrated in states that have limited the expansion of their health-insurance coverage as part of the ACA. Existing health disparities among Latinos in these areas may worsen over time, and the impacts of limiting expansion should be monitored. Third, the ACA will allow more previously uninsured patients to receive health care in private settings. These settings may not be equipped initially to handle the linguistic and health needs of the Latino population because of the few supportive

services available to patients in these settings. Future research should evaluate how Latinos fare compared with other groups in settings without on-site language services and social services, and this should be compared with the care received in CHCs and from other providers who traditionally care for Latinos. Fourth, the health of Latinos will be affected by the effectiveness of ongoing and future efforts to diversify the health care workforce. Although the proportion of physicians who are Latino has not significantly changed since the 1980s, the expansion and professionalization of Latino medical providers, other nonclinician providers, and community health workers and medical assistants in primary care settings may open up opportunities for professional development for a large workforce of Latinos during the coming decade. As we are confronted with these dilemmas, it will be important to incentivize local public health delivery systems to develop, test, and scale up solutions to improve the health outcomes of Latinos and to reduce health disparities.

DISCLOSURE STATEMENT

The authors are not aware of any affiliations, memberships, funding, or financial holdings that might be perceived as affecting the objectivity of this review.

ACKNOWLEDGMENTS

A.N.O.'s time was supported by a grant from the National Heart, Lung, and Blood Institute (P50 HL105188) at the National Institutes of Health. The authors would like to thank Dr. Dylan Roby of the UCLA Center for Health Policy Research and Dr. Felix Nunez of Molina Healthcare of California for helpful comments made on an early draft of this review, and Mr. Daniel Tien for his help in formatting the manuscript.

LITERATURE CITED

1. Aguilar-Gaxiola S. 2012. *Falling through the cracks? Implications of health care reform for Latino behavioral health*. Presented at 2nd National Conference: Transforming Mental Health for Latinos through Policy, Research, Practice and Leadership, April 22–24, Miami. <http://www.nrchmh.org/attachments/2012-conference/Dr%20Sergio%20Aguilar-Gaxiola%20-%20April%2023%20AM%20Keynote.pdf>
2. Alegria M, Cao Z, McGuire TG, Ojeda VD, Sribney B, et al. 2006. Health insurance coverage for vulnerable populations: contrasting Asian Americans and Latinos in the United States. *Inquiry* 43:231–54
3. Arredondo A, Orozco E, Wallace SP, Rodriguez M. 2012. Health insurance for undocumented immigrants: opportunities and barriers on the Mexican side of the US border. *Int. J. Health Plan. Manag.* 27:50–62
4. Baker D, Chappelle D. 2012. Health status and needs of Latino dairy farmworkers in Vermont. *J. Agromed.* 17:277–87
5. Barcellos S, Goldman D, Smith J. 2012. Undiagnosed disease, especially diabetes, casts doubt on some of reported health ‘advantage’ of recent Mexican immigrants. *Health Aff.* 31:2727–37
6. Batalova J. 2008. *Mexican immigrants in the United States*. Washington, DC: Migr. Policy Inst., Migr. Inf. Source. <http://www.migrationpolicy.org/article/mexican-immigrants-united-states-1>
7. Berdahl TA, Kirby JB, Stone RA. 2007. Access to health care for nonmetro and metro Latinos of Mexican origin in the United States. *Med. Care* 45:647–54
8. Berk ML, Schur CL. 2001. The effect of fear on access to care among undocumented Latino immigrants. *J. Immigr. Health* 3:151–6
9. Berk ML, Schur CL, Chavez LR, Frankel M. 2000. Health care use among undocumented Latino immigrants. *Health Aff.* 19:51–64

10. Blair IV, Havranek EP, Price DW, Hanratty R, Fairclough DL, et al. 2013. Assessment of biases against Latinos and African Americans among primary care providers and community members. *Am. J. Public Health* 103:92–98
11. Blair IV, Steiner JF, Fairclough DL, Hanratty R, Price DW, et al. 2013. Clinicians' implicit ethnic/racial bias and perceptions of care among black and Latino patients. *Ann. Fam. Med.* 11:43–52
12. Blavin F, Zuckerman S, Karpman M, Clemans-Cope L. 2014. Why Are Hispanics slow to enroll in ACA coverage? Insights from the Health Reform Monitoring Survey. *Health Aff. Blog* March 18. <http://healthaffairs.org/blog/2014/03/18/why-are-hispanics-slow-to-enroll-in-aca-coverage-insights-from-the-health-reform-monitoring-survey/>
13. Borders T, Brannon-Goedeke A, Arif A, Xu K. 2004. Parents' reports of children's medical care access: are there Mexican-American versus non-Hispanic white disparities? *Med. Care* 42:884–92
14. Brown A, Lopez MH. 2013. *Mapping the Latino Population, By State, County and City*. Washington, DC: Pew Res. Hisp. Trends Proj. <http://www.pewhispanic.org/2013/08/29/mapping-the-latino-population-by-state-county-and-city/>
15. Brown AF, Gerzoff RB, Karter AJ, Gregg E, Safford M, et al. 2003. Health behaviors and quality of care among Latinos with diabetes in managed care. *Am. J. Public Health* 93:1694–98
16. Byrd TL, Law JG. 2009. Cross-border utilization of health care services by United States residents living near the Mexican border. *Rev. Panam. Salud Publica* 26:95–100
17. Carter-Pokras O, Zambrana RE, Yankelovich G, Estrada M, Castillo-Salgado C, Ortega AN. 2008. Health status of Mexican-origin persons: do proxy measures of acculturation advance our understanding of health disparities? *J. Immigr. Minor. Health* 10:475–88
18. Chan KS, Gaskin DJ, Dinwiddie GY, McCleary R. 2012. Do diabetic patients living in racially segregated neighborhoods experience different access and quality of care? *Med. Care* 50:692–99
19. Chen J, Rizzo JA, Rodriguez HP. 2011. The health effects of cost-related treatment delays. *Am. J. Med. Qual.* 26:261–71
20. Chin MH, Auerbach SB, Cook S, Harrison JF, Koppert J, et al. 2000. Quality of diabetes care in community health centers. *Am. J. Public Health* 90:431–34
21. Coffman JM, Rosenoff E, Grumbach K. 2001. Racial/ethnic disparities in nursing. *Health Aff.* 20:263–72
22. Colon E, Giachello A, McIver L, Pacheco G, Vela L. 2013. Diabetes and depression in the Hispanic/Latino community. *Clin. Diabetes* 31:43–45
23. Congr. Budg. Off. 2012. *Estimates for the Insurance Coverage Provisions of the Affordable Care Act Updated for the Recent Supreme Court Decision*. Washington, DC: Congr. Budg. Off.
24. DeCamp L, Kuo D, Flores G, O'Connor K, Minkovitz C. 2013. Changes in language services use by US pediatricians. *Pediatrics* 132:e396–406
25. DiMassa G, Escarce JJ. 2007. Insurance and health care expenditures: what's the real question? *Ann. Intern. Med.* 146:814–15
26. DiMatteo MR, Sherbourne CD, Hays RD, Ordway L, Kravitz RL, et al. 1993. Physicians' characteristics influence patients' adherence to medical treatment: results from the Medical Outcomes Study. *Health Psychol.* 12:93–102
27. Dinwiddie GY, Gaskin DJ, Chan KS, Norrington J, McCleary R. 2013. Residential segregation, geographic proximity and type of services used: evidence for racial/ethnic disparities in mental health. *Soc. Sci. Med.* 80:67–75
28. Dockterman D. 2009. *Statistical Portrait of the Foreign-Born Population in the United States, 2009*. Washington, DC: Pew Res. Hisp. Trends Proj. <http://www.pewhispanic.org/2011/02/17/statistical-portrait-of-the-foreign-born-population-in-the-united-states-2009/>
29. Durden TE. 2007. Nativity, duration of residence, citizenship, and access to health care for Hispanic children. *Int. Migr. Rev.* 41:537–45
30. Durden TE. 2007. Usual source of health care among Hispanic children: the implications of immigration. *Med. Care* 45:753–60
31. Ell K, Katon W, Cabassa LJ, Xie B, Lee PJ, et al. 2009. Depression and diabetes among low-income Hispanics: design elements of a socioculturally adapted collaborative care model randomized controlled trial. *Int. J. Psychiatry Med.* 39:113–32

32. Ennis SR, Rios-Vargas M, Albert NG. 2011. *The Hispanic Population: 2010*. Washington, DC: US Census Bur.
33. Fiscella K, Holt K, Meldrum S, Franks P. 2006. Disparities in preventive procedures: comparisons of self-report and Medicare claims data. *BMC Health Serv. Res.* 6:122
34. Flores G, Abreu M, Barone C, Bachur R, Lin H. 2012. Errors of medical interpretation and their potential clinical consequences: a comparison of professional versus ad hoc versus no interpreters. *Ann. Emerg. Med.* 60:545–53
35. Flores G, Olson L, Tomany-Korman SC. 2005. Racial and ethnic disparities in early childhood health and health care. *Pediatrics* 115:e183–93
36. Forrest CB, Whelan EM. 2000. Primary care safety-net delivery sites in the United States: a comparison of community health centers, hospital outpatient departments, and physicians' offices. *JAMA* 284:2077–83
37. Frey JL, Jahnke HK, Goslar PW. 2008. Study of the propensity for hemorrhage in Hispanic Americans with stroke. *J. Stroke Cerebrovasc. Dis.* 17:58–63
38. Friedberg MW, Coltin KL, Safran DG, Dresser M, Schneider EC. 2010. Medical home capabilities of primary care practices that serve sociodemographically vulnerable neighborhoods. *Arch. Intern. Med.* 170:938–44
39. Fuentes-Afflick E, Hessol NA, Bauer T, O'Sullivan MJ, Gomez-Lobo V, et al. 2006. Use of prenatal care by Hispanic women after welfare reform. *Obstet. Gynecol.* 107:151–60
40. Garrison G, Mikesell C, Matthew D. 2007. Medical school graduation and attrition rates. *Anal. Brief* 7(2):1–2
41. Gaskin DJ, Dinwiddie GY, Chan KS, McCleary R. 2012. Residential segregation and disparities in health care services utilization. *Med. Care Res. Rev.* 69:158–75
42. Goldman DP, Smith JP, Sood N. 2005. Legal status and health insurance among immigrants. *Health Aff.* 24:1640–53
43. Goldman DP, Smith JP, Sood N. 2006. Immigrants and the cost of medical care. *Health Aff.* 25:1700–11
44. Gonzalez-Block MA, de la Sierra-de la Vega LA. 2011. Hospital utilization by Mexican migrants returning to Mexico due to health needs. *BMC Public Health* 11:241
45. Gonzalez-Block MA, Vargas Bustamante A, de la Sierra LA, Martinez Cardoso A. 2014. Redressing the limitations of the Affordable Care Act for Mexican immigrants through bi-national health insurance: a willingness to pay study in Los Angeles. *J. Immigr. Minor. Health* 16:179–88
46. Goodwin SM, Anderson GF. 2012. Effect of Cost-Sharing Reductions on Preventive Service Use Among Medicare Fee-for-Service Beneficiaries. *Medicare Medicaid Res. Rev.* 2:002.01.a03
47. Greenfield S, Kaplan SH, Ware JE Jr, Yano EM, Frank HJ. 1988. Patients' participation in medical care: effects on blood sugar control and quality of life in diabetes. *J. Gen. Intern. Med.* 3:448–57
48. Grieco EM, Acosta YD, de la Cruz GP, Gambino C, Gryn T, et al. 2012. *The foreign-born population in the United States: 2010*. Am. Community Surv. Rep. ACS-19, US Census Bureau, Washington, DC. <http://www.census.gov/prod/2012pubs/acs-19.pdf>
49. Grumbach K, Hart L, Mertz E, Coffman J, Palazzo L. 2003. Who is caring for the underserved? A comparison of primary care physicians and nonphysician clinicians in California and Washington. *Ann. Fam. Med.* 1:97–104
50. Guerrero AD, Chen J, Inkelas M, Rodriguez HP, Ortega AN. 2010. Racial and ethnic disparities in pediatric experiences of family-centered care. *Med. Care* 48:388–93
51. Guevara J, Adanga E, Avakame E, Carthon M. 2013. Minority faculty development programs and underrepresented minority faculty representation at US medical schools. *JAMA* 310:2297–304
52. Gurman TA, Becker D. 2008. Factors affecting Latina immigrants' perceptions of maternal health care: findings from a qualitative study. *Health Care Women Int.* 29:507–26
53. Hall M. 2013. Residential integration on the new frontier: immigrant segregation in established and new destinations. *Demography* 50:1873–96
54. Hamel L, Rao M, Levitt L, Claxton G, Cox C, et al. 2014. *Survey of Non-group Health Insurance Enrollees*. Washington, DC: Henry J. Kaiser Fam. Found. <http://kff.org/health-reform/report/survey-of-non-group-health-insurance-enrollees/>

55. Harari N, Davis M, Heisler M. 2008. Strangers in a strange land: health care experiences for recent Latino immigrants in Midwest communities. *J. Health Care Poor Underserved* 19:1350–67
56. Hargraves JL, Hadley J. 2003. The contribution of insurance coverage and community resources to reducing racial/ethnic disparities in access to care. *Health Serv. Res.* 38:809–29
57. Hargraves JL, Stoddard JJ, Trude S. 2001. Minority physicians' experiences obtaining referrals to specialists and hospital admissions. *Medscape Gen. Med.* 3:10
58. Harris MI, Eastman RC, Cowie CC, Flegal KM, Eberhardt MS. 1999. Racial and ethnic differences in glycemic control of adults with type 2 diabetes. *Diabetes Care* 22:403–8
59. Harris MI, Klein R, Cowie CC, Rowland M, Byrd-Holt DD. 1998. Is the risk of diabetic retinopathy greater in non-Hispanic blacks and Mexican Americans than in non-Hispanic whites with type 2 diabetes? A U.S. population study. *Diabetes Care* 21:1230–35
60. Hay JW, Katon WJ, Ell K, Lee PJ, Guterman JJ. 2012. Cost-effectiveness analysis of collaborative care management of major depression among low-income, predominantly Hispanics with diabetes. *Value Health* 15:249–54
61. Health Resour. Serv. Adm. 2014. *The Affordable Care Act and Health Centers*. Washington, DC: US Dept. Health Human Serv., Health Resour. Serv. Adm. <http://www.hrsa.gov/about/news/2012tables/healthcentersacfactsheet.pdf>
62. Heisler M, Faul JD, Hayward RA, Langa KM, Blaum C, Weir D. 2007. Mechanisms for racial and ethnic disparities in glycemic control in middle-aged and older Americans in the health and retirement study. *Arch. Intern. Med.* 167:1853–60
63. Henry J. Kaiser Fam. Found. 2013. *Summary of the Affordable Care Act*. Publ. 8061-02, Henry J. Kaiser Fam. Found, Washington, DC. <http://kff.org/health-reform/fact-sheet/summary-of-the-affordable-care-act/>
64. Hicks LS, O'Malley AJ, Lieu TA, Keegan T, Cook NL, et al. 2006. The quality of chronic disease care in U.S. community health centers. *Health Aff.* 25:1712–23
65. Hubbell FA, Waitzkin H, Mishra SI, Dombrink J, Chavez LR. 1991. Access to medical care for documented and undocumented Latinos in a southern California county. *West. J. Med.* 154:414–17
66. Kaiser Comm. Medicaid Uninsured. 2006. *Medicaid and SCHIP Eligibility for Immigrants*. Washington, DC: Henry J. Kaiser Fam. Found. <http://kaiserfamilyfoundation.files.wordpress.com/2013/01/7492.pdf>
67. Kang-Kim M, Betancourt JR, Ayanian JZ, Zaslavsky AM, Yucel RM, Weissman JS. 2008. Access to care and use of preventive services by Hispanics: state-based variations from 1991 to 2004. *Med. Care* 46:507–15
68. Karter AJ, Ferrara A, Liu JY, Moffet HH, Ackerson LM, Selby JV. 2002. Ethnic disparities in diabetic complications in an insured population. *JAMA* 287:2519–27
69. Kepka D, Coronado G, Rodriguez H, Thompson B. 2010. Acculturation and HPV infection among Latinas in the United States. *Prev. Med.* 51:182–84
70. Kershaw KN, Albrecht SS, Carnethon MR. 2013. Racial and ethnic residential segregation, the neighborhood socioeconomic environment, and obesity among Blacks and Mexican Americans. *Am. J. Epidemiol.* 177:299–309
71. Krogstad J, Lopez M. 2014. *Hispanic Nativity Shift: U.S. Births Drive Population Growth as Immigration Stalls*. Washington, DC: Pew Res. Hisp. Trends Proj. <http://www.pewhispanic.org/2014/04/29/hispanic-nativity-shift/>
72. Ku L, Matani S. 2001. Left out: immigrants' access to health care and insurance. *Health Aff.* 20:247–56
73. Langellier BA, Garza JR, Glik D, Prelip ML, Brookmeyer R, et al. 2012. Immigration disparities in cardiovascular disease risk factor awareness. *J. Immigr. Minor. Health* 14:918–25
74. Lara M, Gamboa C, Kahramanian ML, Morales LS, Bautista DEH. 2005. Acculturation and Latino health in the United States: a review of the literature and its sociopolitical context. *Annu. Rev. Public Health* 26:367–97
75. Laugesen MJ, Vargas-Bustamante A. 2010. A patient mobility framework that travels: European and United States–Mexican comparisons. *Health Policy* 97:225–31
76. Laws MA. 2002. Foundation approaches to U.S.–Mexico border and binational health funding. *Health Aff.* 21:271–77

77. Leclere FB, Jensen L, Biddlecom AE. 1994. Health care utilization, family context, and adaptation among immigrants to the United States. *J. Health Soc. Behav.* 35:370–84
78. Livingston G, Minushkin S, Cohn D. 2008. *Hispanics and Health Care in the United States: Access, Information and Knowledge*. Washington, DC: Pew Res. Hisp. Trends Proj. <http://www.pewhispanic.org/2008/08/13/hispanics-and-health-care-in-the-united-states-access-information-and-knowledge/>
79. Lopez-Cevallos D. 2014. Are Latino immigrants a burden to safety net services in nontraditional immigrant states? Lessons from Oregon. *Am. J. Public Health* 104:781–86
80. Lopez M, Gonzalez-Barrera A, Motel S. 2011. *As Deportations Rise to Record Levels, Most Latinos Oppose Obama's Policy*. Washington, DC: Pew Res. Hisp. Trends Proj. <http://www.pewhispanic.org/2011/12/28/as-deportations-rise-to-record-levels-most-latinos-oppose-obamas-policy/>
81. Lupton K, Vercammen-Grandjean C, Forkin J, Wilson E, Grumbach K. 2012. Specialty choice and practice location of physician alumni of University of California premedical postbaccalaureate programs. *Acad. Med.* 87:115–20
82. Maciosek MV, Coffield AB, Edwards NM, Flottemesch TJ, Goodman MJ, Solberg LI. 2006. Priorities among effective clinical preventive services: results of a systematic review and analysis. *Am. J. Prev. Med.* 31:52–61
83. Mainous AG, Diaz VA, Koopman RJ, Everett CJ. 2007. Quality of care for Hispanic adults with diabetes. *Fam. Med.* 39:351–56
84. McWilliams JM, Meara E, Zaslavsky AM, Ayanian JZ. 2007. Health of previously uninsured adults after acquiring Medicare coverage. *JAMA* 298:2886–94
85. McWilliams JM, Meara E, Zaslavsky AM, Ayanian JZ. 2009. Differences in control of cardiovascular disease and diabetes by race, ethnicity, and education: U.S. trends from 1999 to 2006 and effects of Medicare coverage. *Ann. Intern. Med.* 150:505–15
86. McWilliams JM, Zaslavsky AM, Meara E, Ayanian JZ. 2004. Health insurance coverage and mortality among the near-elderly. *Health Aff.* 23:223–33
87. Nandi A, Galea S, Lopez G, Nandi V, Strongarone S, Ompad D. 2008. Access to and use of health services among undocumented Mexican immigrants in a US urban area. *Am. J. Public Health* 98:2011–20
88. Nemeth LS, Ornstein SM, Jenkins RG, Wessell AM, Nietert PJ. 2012. Implementing and evaluating electronic standing orders in primary care practice: a PPRNet study. *J. Am. Board Fam. Med.* 25:594–604
89. Newburger E, Gryn T. 2009. *The Foreign-born Labor Force in the United States: 2007*. Washington, DC: US Census Bur.
90. Nivet M, Taylor V, Butts G, Strelnick A, Herbert-Carter J, et al. 2008. Diversity in academic medicine no. 1 case for minority faculty development today. *Mt. Sinai J. Med.* 75:491–98
91. Nwasuruba C, Osuagwu C, Bae S, Singh KP, Egede LE. 2009. Racial differences in diabetes self-management and quality of care in Texas. *J. Diabetes Complicat.* 23:112–18
92. O'Brien MJ, Davey A, Alos VA, Whitaker RC. 2013. Diabetes-related behaviors in Latinas and non-Latinas in California. *Diabetes Care* 36:355–61
93. Ortega AN, Fang H, Perez VH, Rizzo JA, Carter-Pokras O, et al. 2007. Health care access, use of services, and experiences among undocumented Mexicans and other Latinos. *Arch. Intern. Med.* 167:2354–60
94. Ortega AN, Horwitz SM, Fang H, Kuo AA, Wallace SP, Inkelas M. 2009. Documentation status and parental concerns about development in young US children of Mexican origin. *Acad. Pediatr.* 9:278–82
95. Pagan JA, Pauly MV. 2006. Community-level uninsurance and the unmet medical needs of insured and uninsured adults. *Health Serv. Res.* 41:788–803
96. Passel J, Cohn D. 2008. *U.S. Population Projections: 2005–2050*. Washington, DC: Pew Res. Hisp. Trends Proj. <http://www.pewhispanic.org/2008/02/11/us-population-projections-2005-2050/>
97. Passel J, Cohn D. 2009. *A Portrait of Unauthorized Immigrants in the United States*. Washington, DC: Pew Res. Hisp. Trends Proj. <http://www.pewhispanic.org/2009/04/14/a-portrait-of-unauthorized-immigrants-in-the-united-states/>
98. Passel J, Cohn D. 2009. *Mexican Immigrants: How Many Come? How Many Leave?* Washington, DC: Pew Res. Hisp. Trends Proj. <http://www.pewhispanic.org/2009/07/22/mexican-immigrants-how-many-come-how-many-leave/>
99. Passel J, Taylor P. 2010. *Unauthorized Immigrants and Their U.S.-born Children*. Washington, DC: Pew Hisp. Cent. <http://www.pewhispanic.org/files/reports/125.pdf>

100. Pauly MV, Pagan JA. 2007. Spillovers and vulnerability: the case of community uninsurance. *Health Aff.* 26:1304–14
101. Payne PW Jr. 2014. Should the Affordable Care Act’s preventive services coverage provision be used to widely disseminate whole genome sequencing to Americans? *J. Health Polit. Policy Law* 39:239–46
102. Pearson Educ., Info. Please. 2013. *Hispanic Americans By the Numbers*. Upper Saddle River, NJ: Pearson Educ., Info. Please. <http://www.infoplease.com/spot/hhmcensus1.html>
103. Perez VH, Fang H, Inkelas M, Kuo AA, Ortega AN. 2009. Access to and utilization of health care by subgroups of Latino children. *Med. Care* 47:695–99
104. Pew Res. Hisp. Trends Proj. 2011. *The Mexican-American Boom: Births Overtake Immigration*. Washington, DC: Pew Res. Hisp. Trends Proj. <http://www.pewhispanic.org/2011/07/14/the-mexican-american-boom-brbirths-overtake-immigration/>
105. Pourat N, Wallace S, Hadler M, Ponce N. 2014. Assessing health care services used by California’s undocumented immigrant population in 2010. *Health Aff.* 33:840–47
106. Rittenhouse DR, Casalino LP, Shortell SM, McClellan SR, Gillies RR, et al. 2011. Small and medium-size physician practices use few patient-centered medical home processes. *Health Aff.* 30:1575–84
107. Rodriguez HP, Chen J, Rodriguez MA. 2010. A national study of problematic care experiences among Latinos with diabetes. *J. Health Care Poor Underserved* 21:1152–68
108. Rodriguez HP, Scoggins JF, von Glahn T, Zaslavsky AM, Safran DG. 2009. Attributing sources of variation in patients’ experiences of ambulatory care. *Med. Care* 47:835–41
109. Rodriguez HP, von Glahn T, Grembowski DE, Rogers WH, Safran DG. 2008. Physician effects on racial and ethnic disparities in patients’ experiences of primary care. *J. Gen. Intern. Med.* 23:1666–72
110. Rodriguez MA, Vargas Bustamante A, Ang A. 2009. Perceived quality of care, receipt of preventive care, and usual source of health care among undocumented and other Latinos. *J. Gen. Intern. Med.* 24(Suppl. 3):508–13
111. Saad-Harfouche FG, Jandorf L, Gage E, Thelemaque LD, Colon J, et al. 2011. Esperanza y Vida: training lay health advisors and cancer survivors to promote breast and cervical cancer screening in Latinas. *J. Community Health* 36:219–27
112. Safran DG, Taira DA, Rogers WH, Kosinski M, Ware JE, Tarlov AR. 1998. Linking primary care performance to outcomes of care. *J. Fam. Pract.* 47:213–20
113. Saloner B, Sabik L, Sommers BD. 2014. Pinching the poor? Medicaid cost sharing under the ACA. *N. Engl. J. Med.* 370:1177–80
114. Saydah S, Cowie C, Eberhardt MS, De Rekeneire N, Narayan KM. 2007. Race and ethnic differences in glycemic control among adults with diagnosed diabetes in the United States. *Ethn. Dis.* 17:529–35
115. Schneider J, Kaplan SH, Greenfield S, Li W, Wilson IB. 2004. Better physician-patient relationships are associated with higher reported adherence to antiretroviral therapy in patients with HIV infection. *J. Gen. Intern. Med.* 19:1096–103
116. Schuster MA, Elliott MN, Kanouse DE, Wallander JL, Tortolero SR, et al. 2012. Racial and ethnic health disparities among fifth-graders in three cities. *N. Engl. J. Med.* 367:735–45
117. Shi L, Starfield B, Xu J, Politzer R, Regan J. 2003. Primary care quality: community health center and health maintenance organization. *South. Med. J.* 96:787–95
118. Shi L, Stevens GD, Wulu JT Jr, Politzer RM, Xu J. 2004. America’s Health Centers: reducing racial and ethnic disparities in perinatal care and birth outcomes. *Health Serv. Res.* 39:1881–901
119. Singer JD, Davidson SM, Graham S, Davidson HS. 1998. Physician retention in community and migrant health centers: who stays and for how long? *Med. Care* 36:1198–213
120. Smedley BD, Stith AY, Nelson AR, eds. 2003. *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*. Washington, DC: Natl. Acad. Press
121. Sommers BD, Kenney GM, Epstein AM. 2014. New evidence on the Affordable Care Act: coverage impacts of early Medicaid expansions. *Health Aff.* 33:78–87
122. Stewart M, Brown JB, Donner A, McWhinney IR, Oates J, et al. 2000. The impact of patient-centered care on outcomes. *J. Fam. Pract.* 49:796–804
123. Su D, Richardson C, Wen M, Pagan JA. 2011. Cross-Border Utilization of Health Care: Evidence from a Population-Based Study in South Texas. *Health Serv. Res.* 46:859–76

124. Terhune C. 2014. Anthem Blue Cross signs up the most Californians under health law. *Los Angeles Times*, April 21. <http://www.latimes.com/business/la-fi-anthem-exchange-20140422-story.html>
125. Tobias M. 2013. *Nebraska's Hispanic/Latino Population Could Triple By 2050*. Lincoln, NE: Nebraska Educational Telecommunications. <http://netnebraska.org/article/news/nebraskas-hispaniclatino-population-could-triple-2050>
126. US Dept. Health Hum. Serv. 2012. *The Affordable Care Act and Latinos*. Last reviewed October 1, 2014. Washington, DC: US Dept. Health Hum. Serv. <http://www.hhs.gov/healthcare/facts/factsheets/2012/04/aca-and-latinos04102012a.html>
127. Valdez CR, Padilla B, Valentine JL. 2013. Consequences of Arizona's immigration policy on social capital among Mexican mothers with unauthorized immigration status. *Hisp. J. Behav. Sci.* 35:303–22
128. Vargas Bustamante A, Chen J. 2011. Physicians cite hurdles ranging from lack of coverage to poor communication in providing high-quality care to Latinos. *Health Aff.* 30:1921–29
129. Vargas Bustamante A, Chen J. 2012. Health expenditure dynamics and years of U.S. residence: analyzing spending disparities among Latinos by citizenship/nativity status. *Health Serv. Res.* 47:794–818
130. Vargas Bustamante A, Chen J. 2014. The Great Recession and health spending among uninsured U.S. immigrants: implications for the Affordable Care Act implementation. *Health Serv. Res.* 49(6):1900–24
131. Vargas Bustamante A, Chen J, Fang H, Rizzo JA, Ortega AN. 2014. Identifying health insurance predictors and the main reported reasons for being uninsured among US immigrants by legal authorization status. *Int. J. Health Plan. Manag.* 29:e83–96
132. Vargas Bustamante A, Chen J, Rodriguez HP, Rizzo JA, Ortega AN. 2010. Use of preventive care services among Latino subgroups. *Am. J. Prev. Med.* 38:610–19
133. Vargas Bustamante A, Fang H, Garza J, Carter-Pokras O, Wallace SP, et al. 2012. Variations in healthcare access and utilization among Mexican immigrants: the role of documentation status. *J. Immigr. Minor. Health* 14:146–55
134. Vargas Bustamante A, Fang H, Rizzo JA, Ortega AN. 2009. Heterogeneity in health insurance coverage among US Latino adults. *J. Gen. Intern. Med.* 24(Suppl. 3):561–66
135. Vargas Bustamante A, Fang H, Rizzo JA, Ortega AN. 2009. Understanding observed and unobserved health care access and utilization disparities among US Latino adults. *Med. Care Res. Rev.* 66:561–77
136. Vargas Bustamante A, Laugesen M, Caban M, Rosenau P. 2012. United States–Mexico cross-border health insurance initiatives: Salud Migrante and Medicare in Mexico. *Rev. Panam. Salud Publica* 31:74–80
137. Vargas Bustamante A, Ojeda G, Castaneda X. 2008. Willingness to pay for cross-border health insurance between the United States and Mexico. *Health Aff.* 27:169–78
138. Vargas Bustamante A, Van der Wees PJ. 2012. Integrating immigrants into the U.S. health system. *Virtual Mentor* 14:318–23
139. Varkey AB, Manwell LB, Williams ES, Ibrahim SA, Brown RL, et al. 2009. Separate and unequal: clinics where minority and nonminority patients receive primary care. *Arch. Intern. Med.* 169:243–50
140. Vega WA, Rodriguez MA, Gruskin E. 2009. Health disparities in the Latino population. *Epidemiol. Rev.* 31:99–112
141. Waidmann TA, Rajan S. 2000. Race and ethnic disparities in health care access and utilization: an examination of state variation. *Med. Care Res. Rev.* 57(Suppl. 1):55–84
142. Wallace S, Gutiérrez V, Castañeda X. 2008. Access to preventive services for adults of Mexican origin. *J. Immigr. Minor. Health* 10:363–71
143. Wallace S, Mendez-Luck C, Castaneda X. 2009. Heading south: why Mexican immigrants in California seek health services in Mexico. *Med. Care* 47:662–69
144. Wang ML, Lemon SC, Whited MC, Rosal MC. 2014. Who benefits from diabetes self-management interventions? The influence of depression in the Latinos en Control Trial. *Ann. Behav. Med.* 48:256–64
145. Wang W. 2012. *The rise of intermarriage: rates, characteristics vary by race and gender*. Washington, DC: Pew Res. Soc. Demogr. Trends. <http://www.pewsocialtrends.org/2012/02/16/the-rise-of-intermarriage/>
146. Warner DC, Schneider PG. 2004. *Cross-Border Health Insurance: Options for Texas* (U.S. Mexican Policy Report Series). Austin, TX: Univ. Tex. Lyndon B. Johnson School Public Aff.
147. Weinick R, Jacobs E, Stone L, Ortega A, Burstin H. 2004. Hispanic healthcare disparities: challenging the myth of a monolithic Hispanic population. *Med. Care* 42:313–20

148. White K, Yeager V, Menachemi N, Scarinci I. 2014. Impact of Alabama's immigration law on access to health care among Latina immigrants and children: implications for national reform. *Am. J. Public Health* 104:397–405
149. White RM, Deardorff J, Gonzales NA. 2012. Contextual amplification or attenuation of pubertal timing effects on depressive symptoms among Mexican American girls. *J. Adolesc. Health* 50:565–71
150. White RM, Deardorff J, Liu Y, Gonzales NA. 2013. Contextual amplification or attenuation of the impact of pubertal timing on Mexican-origin boys' mental health symptoms. *J. Adolesc. Health* 53:692–98
151. Wong MD, Tagawa T, Hsieh HJ, Shapiro MF, Boscardin WJ, Ettner SL. 2005. Differences in cause-specific mortality between Latino and white adults. *Med. Care* 43:1058–62
152. Yoon J, Grumbach K, Bindman A. 2004. Access to Spanish-speaking physicians in California: supply, insurance, or both. *J. Am. Board Fam. Pract.* 17:165–72
153. Zhang JX, Huang ES, Drum ML, Kirchhoff AC, Schlichting JA, et al. 2009. Insurance status and quality of diabetes care in community health centers. *Am. J. Public Health* 99:742–47
154. Zimmermann W, Tumlin K. 1999. *Patchwork Policies: State Assistance for Immigrants under Welfare Reform*. Washington, DC: The Urban Institute
155. Zuckerman S, Waidmann TA, Lawton E. 2011. Undocumented immigrants, left out of health reform, likely to continue to grow as share of the uninsured. *Health Aff.* 30:1997–2004



Contents

Symposium: Strategies to Prevent Gun Violence

Commentary: Evidence to Guide Gun Violence Prevention in America
Daniel W. Webster 1

The Epidemiology of Firearm Violence in the Twenty-First Century
United States
Garen J. Wintemute 5

Effects of Policies Designed to Keep Firearms from High-Risk
Individuals
Daniel W. Webster and Garen J. Wintemute 21

Cure Violence: A Public Health Model to Reduce Gun Violence
Jeffrey A. Butts, Caterina Gouvis Roman, Lindsay Bostwick, and Jeremy R. Porter 39

Focused Deterrence and the Prevention of Violent Gun Injuries:
Practice, Theoretical Principles, and Scientific Evidence
Anthony A. Braga and David L. Weisburd 55

Epidemiology and Biostatistics

Has Epidemiology Become Infatuated With Methods? A Historical
Perspective on the Place of Methods During the Classical
(1945–1965) Phase of Epidemiology
Alfredo Morabia 69

Statistical Foundations for Model-Based Adjustments
Sander Greenland and Neil Pearce 89

The Elusiveness of Population-Wide High Blood Pressure Control
Paul K. Whelton 109

The Epidemiology of Firearm Violence in the Twenty-First Century
United States
Garen J. Wintemute 5

Focused Deterrence and the Prevention of Violent Gun Injuries:
Practice, Theoretical Principles, and Scientific Evidence
Anthony A. Braga and David L. Weisburd 55

| | |
|--|-----|
| Unintentional Home Injuries Across the Life Span: Problems and Solutions <i>Andrea C. Gielen, Eileen M. McDonald, and Wendy Shields</i> | 231 |
| Sleep as a Potential Fundamental Contributor to Disparities in Cardiovascular Health <i>Chandra L. Jackson, Susan Redline, and Karen M. Emmons</i> | 417 |
| Translating Evidence into Population Health Improvement: Strategies and Barriers <i>Steven H. Woolf, Jason Q. Purnell, Sarah M. Simon, Emily B. Zimmerman, Gabriela J. Camberos, Amber Haley, and Robert P. Fields</i> | 463 |

Environmental and Occupational Health

| | |
|---|-----|
| Fitness of the US Workforce <i>Nicolaas P. Pronk</i> | 131 |
| Food System Policy, Public Health, and Human Rights in the United States <i>Kerry L. Shannon, Brent F. Kim, Shawn E. McKenzie, and Robert S. Lawrence</i> | 151 |
| Regulating Chemicals: Law, Science, and the Unbearable Burdens of Regulation <i>Ellen K. Silbergeld, Daniele Mandrioli, and Carl F. Cranor</i> | 175 |
| The Haves, the Have-Nots, and the Health of Everyone: The Relationship Between Social Inequality and Environmental Quality <i>Lara Cushing, Rachel Morello-Frosch, Madeline Wander, and Manuel Pastor</i> | 193 |
| The Impact of Toxins on the Developing Brain <i>Bruce P. Lanpbear</i> | 211 |
| Unintentional Home Injuries Across the Life Span: Problems and Solutions <i>Andrea C. Gielen, Eileen M. McDonald, and Wendy Shields</i> | 231 |

Public Health Practice

| | |
|--|-----|
| Cross-Sector Partnerships and Public Health: Challenges and Opportunities for Addressing Obesity and Noncommunicable Diseases Through Engagement with the Private Sector <i>Lee M. Johnston and Diane T. Finegood</i> | 255 |
| Deciphering the Imperative: Translating Public Health Quality Improvement into Organizational Performance Management Gains <i>Leslie M. Beitsch, Valerie A. Yeager, and John Moran</i> | 273 |

| | |
|---|-----|
| Identifying the Effects of Environmental and Policy Change Interventions on Healthy Eating <i>Deborah J. Bowen, Wendy E. Barrington, and Shirley A.A. Beresford</i> | 289 |
| Lessons from Complex Interventions to Improve Health <i>Penelope Hawe</i> | 307 |
| Trade Policy and Public Health <i>Sharon Friel, Libby Hattersley, and Ruth Townsend</i> | 325 |
| Uses of Electronic Health Records for Public Health Surveillance to Advance Public Health <i>Guthrie S. Birkhead, Michael Klompas, and Nirav R. Shah</i> | 345 |
| What Is Health Resilience and How Can We Build It? <i>Katharine Wulff, Darrin Donato, and Nicole Lurie</i> | 361 |
| Effects of Policies Designed to Keep Firearms from High-Risk Individuals <i>Daniel W. Webster and Garen J. Wintemute</i> | 21 |
| Cure Violence: A Public Health Model to Reduce Gun Violence <i>Jeffrey A. Butts, Caterina Gouvis Roman, Lindsay Bostwick, and Jeremy R. Porter</i> | 39 |
| Focused Deterrence and the Prevention of Violent Gun Injuries: Practice, Theoretical Principles, and Scientific Evidence <i>Anthony A. Braga and David L. Weisburd</i> | 55 |
| Regulating Chemicals: Law, Science, and the Unbearable Burdens of Regulation <i>Ellen K. Silbergeld, Daniele Mandrioli, and Carl F. Cranor</i> | 175 |
| The Response of the US Centers for Disease Control and Prevention to the Obesity Epidemic <i>William H. Dietz</i> | 575 |
| Social Environment and Behavior | |
| Immigration as a Social Determinant of Health <i>Heide Castañeda, Seth M. Holmes, Daniel S. Madrigal, Maria-Elena DeTrinidad Young, Naomi Beyeler, and James Quesada</i> | 375 |
| Mobile Text Messaging for Health: A Systematic Review of Reviews <i>Amanda K. Hall, Heather Cole-Lewis, and Jay M. Bernhardt</i> | 393 |
| Sleep as a Potential Fundamental Contributor to Disparities in Cardiovascular Health <i>Chandra L. Jackson, Susan Redline, and Karen M. Emmons</i> | 417 |

| | |
|---|-----|
| Stress and Type 2 Diabetes: A Review of How Stress Contributes to the Development of Type 2 Diabetes <i>Shona J. Kelly and Mubarak Ismail</i> | 441 |
| Translating Evidence into Population Health Improvement: Strategies and Barriers <i>Steven H. Woolf, Jason Q. Purnell, Sarah M. Simon, Emily B. Zimmerman, Gabriela J. Camberos, Amber Haley, and Robert P. Fields</i> | 463 |
| Using New Technologies to Improve the Prevention and Management of Chronic Conditions in Populations <i>Brian Oldenburg, C. Barr Taylor, Adrienne O'Neil, Fiona Cocker, and Linda D. Cameron</i> | 483 |
| Commentary: Evidence to Guide Gun Violence Prevention in America <i>Daniel W. Webster</i> | 1 |
| The Haves, the Have-Nots, and the Health of Everyone: The Relationship Between Social Inequality and Environmental Quality <i>Lara Cushing, Rachel Morello-Frosch, Madeline Wander, and Manuel Pastor</i> | 193 |
| Cross-Sector Partnerships and Public Health: Challenges and Opportunities for Addressing Obesity and Noncommunicable Diseases Through Engagement with the Private Sector <i>Lee M. Johnston and Diane T. Finegood</i> | 255 |
| Lessons from Complex Interventions to Improve Health <i>Penelope Hawe</i> | 307 |
| What Is Health Resilience and How Can We Build It? <i>Katharine Wulff, Darrin Donato, and Nicole Lurie</i> | 361 |
| Health Services | |
| Assessing and Changing Organizational Social Contexts for Effective Mental Health Services <i>Charles Glisson and Nathaniel J. Williams</i> | 507 |
| Policy Dilemmas in Latino Health Care and Implementation of the Affordable Care Act <i>Alexander N. Ortega, Hector P. Rodriguez, and Arturo Vargas Bustamante</i> | 525 |
| Tax-Exempt Hospitals and Community Benefit: New Directions in Policy and Practice <i>Daniel B. Rubin, Simone R. Singh, and Gary J. Young</i> | 545 |
| The Prescription Opioid and Heroin Crisis: A Public Health Approach to an Epidemic of Addiction <i>Andrew Kolodny, David T. Courtwright, Catherine S. Hwang, Peter Kreiner, John L. Eadie, Thomas W. Clark, and G. Caleb Alexander</i> | 559 |

| | |
|--|-----|
| The Response of the US Centers for Disease Control and Prevention to the Obesity Epidemic <i>William H. Dietz</i> | 575 |
| Mobile Text Messaging for Health: A Systematic Review of Reviews <i>Amanda K. Hall, Heather Cole-Lewis, and Jay M. Bernhardt</i> | 393 |
| Using New Technologies to Improve the Prevention and Management of Chronic Conditions in Populations <i>Brian Oldenburg, C. Barr Taylor, Adrienne O'Neil, Fiona Cocker, and Linda D. Cameron</i> | 483 |

Indexes

| | |
|---|-----|
| Cumulative Index of Contributing Authors, Volumes 27–36 | 597 |
| Cumulative Index of Article Titles, Volumes 27–36 | 603 |

Errata

An online log of corrections to *Annual Review of Public Health* articles may be found at <http://www.annualreviews.org/errata/publhealth>



ANNUAL REVIEWS

It's about time. Your time. It's time well spent.

Now Available from Annual Reviews:

Annual Review of Virology

virology.annualreviews.org • Volume 1 • September 2014

Editor: **Lynn W. Enquist**, Princeton University

The *Annual Review of Virology* captures and communicates exciting advances in our understanding of viruses of animals, plants, bacteria, archaea, fungi, and protozoa. Reviews highlight new ideas and directions in basic virology, viral disease mechanisms, virus-host interactions, and cellular and immune responses to virus infection, and reinforce the position of viruses as uniquely powerful probes of cellular function.

Complimentary online access to the first volume will be available until September 2015.

TABLE OF CONTENTS:

- *Forty Years with Emerging Viruses*, C.J. Peters
- *Inventing Viruses*, William C. Summers
- *PHIRE and TWiV: Experiences in Bringing Virology to New Audiences*, Graham F. Hatfull, Vincent Racaniello
- *Viruses and the Microbiota*, Christopher M. Robinson, Julie K. Pfeiffer
- *Role of the Vector in Arbovirus Transmission*, Michael J. Conway, Tonya M. Colpitts, Erol Fikrig
- *Balance and Stealth: The Role of Noncoding RNAs in the Regulation of Virus Gene Expression*, Jennifer E. Cox, Christopher S. Sullivan
- *Thinking Outside the Triangle: Replication Fidelity of the Largest RNA Viruses*, Everett Clinton Smith, Nicole R. Sexton, Mark R. Denison
- *The Placenta as a Barrier to Viral Infections*, Elizabeth Delorme-Axford, Yoel Sadovsky, Carolyn B. Coyne
- *Cytoplasmic RNA Granules and Viral Infection*, Wei-Chih Tsai, Richard E. Lloyd
- *Mechanisms of Virus Membrane Fusion Proteins*, Margaret Kielian
- *Oncolytic Poxviruses*, Winnie M. Chan, Grant McFadden
- *Herpesvirus Genome Integration into Telomeric Repeats of Host Cell Chromosomes*, Nikolaus Osterrieder, Nina Wallaschek, Benedikt B. Kaufert
- *Viral Manipulation of Plant Host Membranes*, Jean-François Laliberté, Huanquan Zheng
- *IFITM-Family Proteins: The Cell's First Line of Antiviral Defense*, Charles C. Bailey, Guocai Zhong, I-Chueh Huang, Michael Farzan
- *Glycan Engagement by Viruses: Receptor Switches and Specificity*, Luisa J. Ströh, Thilo Stehle
- *Remarkable Mechanisms in Microbes to Resist Phage Infections*, Ron L. Dy, Corinna Richter, George P.C. Salmond, Peter C. Fineran
- *Polydnaviruses: Nature's Genetic Engineers*, Michael R. Strand, Gaelen R. Burke
- *Human Cytomegalovirus: Coordinating Cellular Stress, Signaling, and Metabolic Pathways*, Thomas Shenk, James C. Alwine
- *Vaccine Development as a Means to Control Dengue Virus Pathogenesis: Do We Know Enough?* Theodore C. Pierson, Michael S. Diamond
- *Archaeal Viruses: Diversity, Replication, and Structure*, Nikki Dellas, Jamie C. Snyder, Benjamin Bolduc, Mark J. Young
- *AAV-Mediated Gene Therapy for Research and Therapeutic Purposes*, R. Jude Samulski, Nicholas Muzyczka
- *Three-Dimensional Imaging of Viral Infections*, Cristina Risco, Isabel Fernández de Castro, Laura Sanz-Sánchez, Kedar Narayan, Giovanna Grandinetti, Sriram Subramaniam
- *New Methods in Tissue Engineering: Improved Models for Viral Infection*, Vyas Ramanan, Margaret A. Scull, Timothy P. Sheahan, Charles M. Rice, Sangeeta N. Bhatia
- *Live Cell Imaging of Retroviral Entry*, Amy E. Hulme, Thomas J. Hope
- *Parvoviruses: Small Does Not Mean Simple*, Susan F. Cotmore, Peter Tattersall
- *Naked Viruses That Aren't Always Naked: Quasi-Enveloped Agents of Acute Hepatitis*, Zongdi Feng, Asuka Hirai-Yuki, Kevin L. McKnight, Stanley M. Lemon
- *In Vitro Assembly of Retroviruses*, Di L. Bush, Volker M. Vogt
- *The Impact of Mass Spectrometry-Based Proteomics on Fundamental Discoveries in Virology*, Todd M. Greco, Benjamin A. Diner, Ileana M. Cristea
- *Viruses and the DNA Damage Response: Activation and Antagonism*, Micah A. Luftig

ANNUAL REVIEWS | Connect With Our Experts

Tel: 800.523.8635 (US/CAN) | Tel: 650.493.4400 | Fax: 650.424.0910 | Email: service@annualreviews.org



reviews.org
3/20/15. For personal use only.
Annu. Rev. Public Health 2015.36:525-544. Downloaded from www.annualreviews.org. Access provided by University of California - Los Angeles - UCLA Digital Coll Serv