



America: Equity and Equality in Health 2

The Affordable Care Act: implications for health-care equity

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See Editorial page 1369

See Comment pages 1376 and 1378

This is the second in a Series of five papers about equity and equality in health in the USA

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Inequalities in medical care are endemic in the USA. The Affordable Care Act (ACA), passed in 2010 and fully implemented in 2014, was intended to expand coverage and bring about a new era of health-care access. In this review, we evaluate the legislation's impact on health-care equity. We consider the law's coverage expansion, insurance market reforms, cost and affordability provisions, and delivery-system reforms. Although the ACA improved coverage and access—particularly for poorer Americans, women, and minorities—its overall impact was modest in comparison with the gaps present before the law's implementation. Today, 29 million people in the USA remain uninsured, and substantial inequalities in access along economic, gender, and racial lines persist. Although most Americans agree that further reform is needed, the proper direction for reform—especially following the 2016 presidential election—is highly contentious. We discuss proposals for change from opposite sides of the political spectrum, together with their potential impact on health equity.

Introduction

Inequalities in health are rife in the USA. Disparities in life expectancy between the wealthy and the poor are growing.¹ Pernicious race-based health inequalities, the consequence of centuries of repression and exclusion, endure. Meanwhile, middle-aged white Americans, particularly those with less education, have experienced an unprecedented rise in mortality.² Although a complex array of social factors underlies these inequalities, equitable access to health care could help ameliorate

them.^{3,4} However, the USA entered the 21st century as an outlier among high-income nations—the only one without universal health coverage. The milestone Affordable Care Act (ACA), signed into law by President Obama in 2010, marked the beginning of a new era of expanded health-care access. As a result of the 2016 presidential election, however, it is unclear whether, and to what extent, the ACA's reforms will persist—or be undone.

Unlike landmark health-care reforms in other English-speaking nations, which created new universal, public

Key messages

- The Affordable Care Act (ACA) has nearly halved the share of Americans without coverage. Disadvantaged groups including the poor, African-Americans, and Hispanics saw gains, although stark health-care inequalities remain.
- Despite the ACA, financial barriers to care persist and might be worsening. High cost sharing in the form of copayments, deductibles, and co-insurance obstructs access to care and frequently leads to financial distress, or even ruin.
- The ACA expanded Medicaid—a public programme for the poor—improving access for millions. However, 19 states opted out of the expansion, and limitations in the Medicaid programme relegate many enrollees to a lower tier of access.
- The law improved access to contraception by mandating coverage for insured women. Meanwhile, several states have imposed new restrictions that curtail access to family planning and abortion.
- The ACA included a number of value-based delivery system provisions. Their equity implications are not yet clear. However, some such pay-for-performance programmes might siphon resources from hospitals and doctors that care for disadvantaged populations.
- The 2016 election altered the political landscape. Republicans have proposed market-based health reforms that would weaken protections for those with so-called pre-existing conditions, decrease federal funding for Medicaid, further privatise Medicare, and replace the ACA's subsidies with more regressive tax credits. If implemented, these policies would exacerbate health-care inequality.
- By contrast, by providing comprehensive coverage to everyone in the USA without cost sharing, single-payer reform could reduce health-care inequalities. Although the political climate is currently adverse to such a reform, it is supported by most Americans, and might prove to be the most tenable proposal for change as political winds shift.

Search strategy and selection criteria

For information on the impact of the Affordable Care Act (ACA) on health-care coverage, access, use, and disparities, we relied on major health-care survey reports or publications based on them, including the National Health Insurance Survey, the Commonwealth Fund Biennial Health Insurance Survey, the Commonwealth Fund Affordable Care Act Tracking Survey, Gallup Healthways, the RAND Health Reform Opinion Survey, the American Community Survey, the Urban Institute's Health Reform Monitoring Survey, and the Employer Benefits Survey of the Kaiser Family Foundation. We also identified articles published in English about health disparities and the ACA in PubMed and the Web of Science by searching for the keywords "Affordable Care Act" in conjunction with one of the following: "disparity", "disparities", "inequality", "inequalities", or "inequity" for the dates Jan 1, 2010, to Oct 4, 2016. We did additional ad-hoc searches to locate references relating to gender or sex and racial inequalities and the ACA. We also identified relevant references from the reference lists of selected papers, from the libraries of the authors, and through the recommendations of expert colleagues. Owing to limitations on the numbers of references and the broad scope of the topic, references were selected after consideration of their importance and originality.

	Provision	Estimated number affected
Coverage expansion		
Dependant coverage provision	Family insurance plans must cover dependants up to age 26 years.	3 million people aged 19–25 years gained coverage. ⁹
Medicaid expansion	Medicaid eligibility expanded to include all people with incomes below 138% of the federal poverty level.* However, states can opt out as a result of a 2012 Supreme Court decision. 100% of the costs of the expansion paid for by the federal government initially, gradually reduced to 90% by 2020.	13 million people gained coverage. ¹⁰
Individual mandate	Individuals without coverage must buy a private plan or pay a tax. Certain exceptions apply, including for economic hardship.	8.2 million people might become uninsured without this provision. ¹¹
Employer mandate	Employers with 50 or more full-time employees must provide coverage that meets certain criteria (see “cost and affordability” below). Those that do not offer coverage to >95% of their full-time employees and dependant children are taxed at US\$2160 per year per employee after the first 30 full-time employees, assuming one or more full-time employees purchase a subsidised marketplace plan. Those that provide plans that do not meet criteria for affordability and minimum value are taxed at \$3240 per year for each employee that receives a premium tax credit, but no more than \$2160 per employee after the first 30 employees. ¹²	Between 200 000 and 1 million people might lose employer-sponsored insurance without this provision. ¹³
Health insurance market reforms		
Marketplaces	Sets up online marketplaces for the sale of insurance plans to individuals and small businesses. Plans sold on the marketplaces must cover ten essential health benefits. Plans purchased on the marketplaces are eligible for premium and cost-sharing subsidies (see “cost and affordability” below).	12 million people gained coverage through the health insurance exchanges. ¹⁰
Guaranteed issue of plans	Insurers cannot base premiums on health (eg, pre-existing conditions) or gender. Premiums can be set by age (up to three times difference in premiums between young and old enrollees), smoking status, benefits tier (see “cost and affordability” below), location, and whether plan is for an individual or a family.	Uncertain
Benefit limits	Prohibits annual and lifetime limits on benefits.	105 million people had plans with lifetime limits pre-ACA. ¹⁴
Preventive health services	Specified preventive health-care services provided without cost sharing.	76 million people became eligible for free preventive services. ¹⁵
Provisions impacting gender equity	Outlaws gender rating, in which women are charged higher premiums than are men. Maternity care considered an essential health benefit. Some reproductive health-care services (including contraception) considered preventive, and hence must be provided without cost sharing.	8.7 million women might benefit from expanded maternity care coverage and 45 million women with expanded preventive services access as of 2012. ¹⁶
Cost and affordability		
Employer-sponsored plans	To meet the employer mandate requirement, plans must meet affordability criteria (premium ≤9.66% of income), benefit criteria, and minimum value criteria (plan covers at least 60% of total medical expenses on average). ¹² Affordability criteria pertain only to individual, not family, coverage. Thus, cost of family coverage might exceed 9.66% threshold.	155 million people had employer-sponsored coverage in 2016. ¹⁰
Marketplace plans	Premium subsidies available on a sliding scale to those earning between 100% and 400% of the federal poverty level. Additional cost-sharing subsidies that reduce copayments and deductibles available to those earning up to 250% of the federal poverty level. Sets following actuarial values for plans: 90% for platinum plans, 80% for gold plans, 70% for silver plans, and 60% for bronze plans. Sets out-of-pocket maximums: for 2017, these were \$14 300 for family plans and \$7150 for individual plans, with lower limits for those earning less than 250% of the federal poverty level. Some employers with less than 25 full-time employees eligible for subsidies for tax credits to buy insurance on small business marketplaces. ¹²	10 million people receive premium subsidies. ¹⁰ 7.2 million people receive cost-sharing subsidies that increase actuarial value; these plans also have lower out-of-pocket maximums. ¹⁷ However, a lower court recently ruled in favour of a Congressional Republican challenge to the legality of these subsidies, a ruling that would end these subsidies unless it is overturned by a higher court.
Delivery system reforms		
Pay-for-performance reforms	Financial rewards and penalties for hospitals based on quality metrics—eg, Hospital Readmissions Reduction Program, Hospital Value-Based Purchasing Program, and Hospital-Acquired Condition Reduction programme.	Uncertain
Accountable care organisations (ACOs)	Encourages providers to form ACOs (responsible for a panel of Medicare enrollees) that share in savings with Medicare if they reduce expenditures—eg, Medicare Shared Savings Program, Pioneer ACOs.	Uncertain
Provisions affecting safety-net institutions	Increased funding for community health centres. Reduced funding for Disproportionate Share Hospital programme.	Uncertain
ACA=Affordable Care Act.* All undocumented immigrants and many legal immigrants are excluded.		
Table 1: Summary of selected ACA provisions		

See Online for infographic
www.thelancet.com/infographics/us-health

programmes, the ACA sought to expand access by building on the existing financing system. To this end, the ACA expanded the Medicaid programme for the poor and private insurance for others, while mandating changes in insurance regulation and provider payment methods.

We explore the reforms of the ACA using the theoretical framework of health-care equity: the perspective that care should be available to all on an equal basis.³ Health-care equity can be construed along three axes: equitable access, equitable use (for those with similar needs), and equitable quality.⁵ Because many people do not have insurance—and because even those with insurance face high costs when they seek care—health-care access has long been grossly inequitable in the USA. In 2010, for instance, 48.6 million people were uninsured.⁶ The uninsured were mostly of low or middle income, and disproportionately black or Hispanic;^{6,7} the ACA was expected to particularly benefit these groups.⁸

Here, we review the ACA's coverage expansions, insurance market reforms, cost and affordability provisions, and delivery system reforms (see table 1 for an overview). We explore the multifold ways in which the ACA moved the US health system towards increased equity across income, gender, sex, and race and ethnic groups. At the same time, we document the ways in which it has fallen short. We conclude with an assessment of the reform's prospects in light of the 2016 presidential election, and of proposals for change moving forward.

Coverage expansion under the ACA

Universal coverage is a foundation of equitable health care. Without it, the uninsured face the unremitting threat of financial ruin from illness or accident. Yet the hazard is not only monetary; uninsurance is associated with increased mortality,^{18,19} poor overall health, and an increase in depressive symptoms and adverse cardiovascular outcomes.²⁰ Moreover, unequal health-care access often exacerbates health inequalities that arise from poverty, racial discrimination, and poor education.

The ACA expanded insurance coverage in two major ways. First, it broadened eligibility for Medicaid, an insurance programme for the poor funded by federal and state taxes, which is administered by state governments. Prior to the ACA, many states limited Medicaid eligibility, covering only very poor people in specific categories (eg, children and some of their parents, disabled people, and pregnant women). By contrast, under the ACA, all citizens with incomes up to 138% of the federal poverty level became eligible for Medicaid coverage commencing in 2014.

Second, the ACA mandated that uninsured citizens purchase private insurance (or pay a fine), and offered some subsidies to those with incomes between 100% and 400% of the poverty level to offset the costs of insurance premiums. The law also established online insurance exchanges or marketplaces through which individuals could purchase regulated, subsidised, and

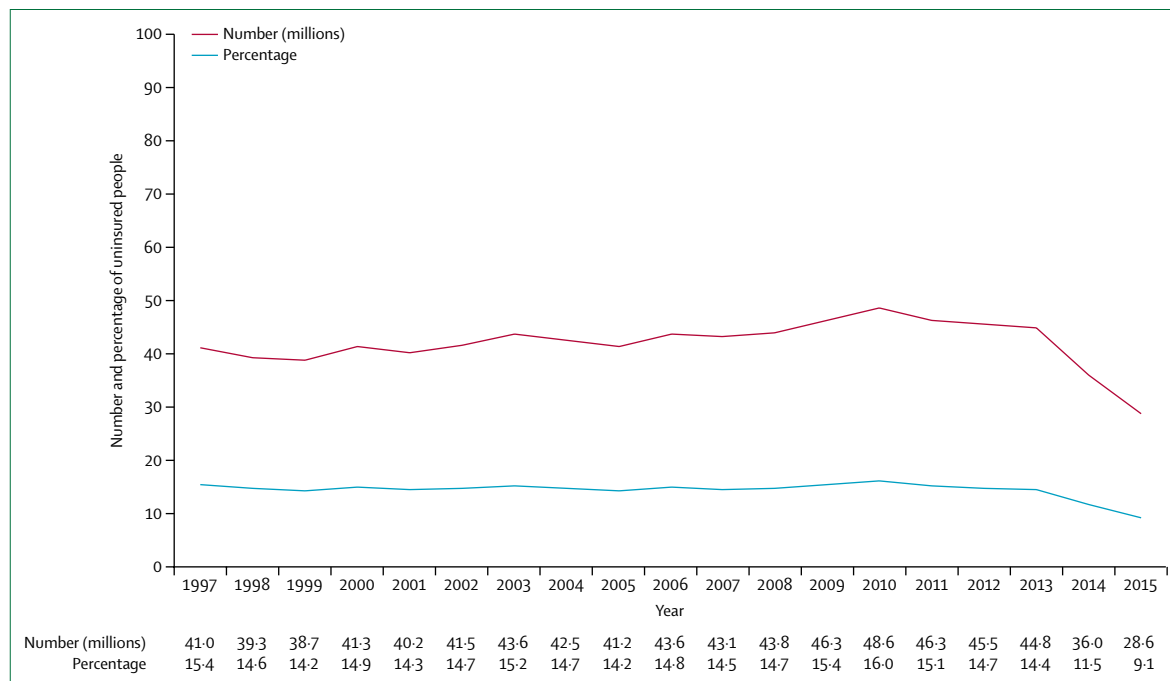


Figure 1: Number and percentage of people uninsured in the USA, 1997–2015
 Uninsured defined as uninsured at time of interview. Two different methods were used in 2004 to calculate the number of insured; the estimates are similar, and this chart uses the first method. These data rely on surveys of civilian, non-institutionalised households. See source²¹ for further details on methodology.

standardised plans. Additionally, the ACA imposed an employer mandate that required large employers to offer health coverage to their employees or pay a fine.^{12,13} Finally, the law required that family insurance policies cover children younger than 26 years of age.

Most coverage expansion provisions became effective in 2014, and evidence suggests that they improved health-care equity in several domains (table 1). For instance, the number of uninsured individuals fell from about 48.6 million (16% of the US population) in 2010 to about 28.6 million (9.1%) in 2015 (figure 1).^{21–25} Most of this improvement has been the result of the Medicaid expansion. Of the 22 million who gained insurance as a result of the ACA, 13 million were insured through Medicaid.¹⁰ At the same time, several measures of access, use, and health outcomes have also improved. After implementation of the ACA, more people reported that they could afford medications and had a physician, fewer reported problems affording care, and self-reported health status improved.²³ Along similar lines, the percentage of non-elderly (ie, <65 years of age) adults who avoided needed care because of cost fell from 43% in 2012 to 36% in 2014.²⁵ Meanwhile, the percentage of non-elderly adults who had difficulties with medical bills or medical debt declined from 41% to 35% over these 2 years.²⁵

As had been hoped, insurance coverage and metrics of access and use particularly improved for the poor (<100% federal poverty level) and the near-poor (≥100% and <200% of the federal poverty level),⁶ blacks and Hispanics,^{6,23,26–28} women of childbearing age, and young families.^{29–31} The requirement that family policies cover children aged 18–25 years—a population that has long had especially high rates of uninsurance—was implemented in 2010 and modestly reduced uninsurance rates^{32–34} and increased access³² and use³⁵ among young adults. However, despite this provision, the uninsurance rate in 2014 among adults aged 19–25 years was still 17.1%³⁶—substantially higher than that of the overall population.

Despite this progress, the gains in coverage and access have been modest compared with the size of the gaps prior to the law's implementation. Further gains are not on the horizon: according to the Congressional Budget Office, even if the ACA were not altered or repealed, 28 million people would remain uninsured in 2024 and beyond.¹⁰

Moreover, several metrics indicate that health-care access remains inequitable. With respect to racial disparities, in 2015 the uninsurance rate among adults aged 18–64 years remained far higher for Hispanics (27.7%) and non-Hispanic blacks (14.4%) than for non-Hispanic whites (8.7%),⁶ showing that long-standing racial and ethnic inequalities have been attenuated but by no means eliminated.^{27,28} Gains in mental health and substance abuse care were even weaker. Blacks, for instance, saw no increase in mental health treatment following implementation of the ACA, whereas no racial group saw an increase in substance abuse treatment.³⁷ Finally,

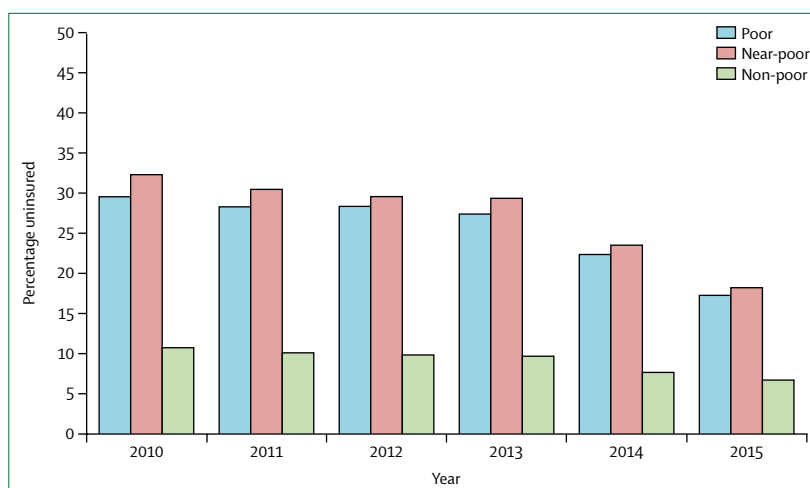


Figure 2: Uninsurance rates in the USA by poverty status for individuals younger than 65 years
Uninsured defined as uninsured at time of interview. Poor defined as family income less than 100% of the federal poverty level (FPL), near-poor as greater than or equal to 100% and less than 200% FPL, and non-poor as at least 200% FPL. Data for those with unknown poverty status not shown here. See source⁶ for details on methodology.

undocumented immigrants are excluded from the ACA's insurance expansion.

Additionally, inequalities by economic class also persist. Among non-elderly adults, 7.6% of the non-poor were uninsured in 2015 compared with 25.2% of the poor and 24.1% of the near-poor (figure 2).⁶ Despite aforementioned improvements, many Americans remain unable to afford care. In 2014, 23% of non-elderly adults reported having skipped a medical visit, and 19% were unable to fill a prescription or undergo a recommended treatment or test because of cost.²⁵ Low-income people, unsurprisingly, fare even worse.²⁵ In 2015, 44.8% of non-elderly low-income adults had unmet medical needs owing to costs, and 24.2% faced difficulties with medical bills.³⁸

The so-called narrow networks of doctors and hospitals covered by most marketplace plans also impede equitable health-care access. Narrow networks allow insurers to control costs: they use the threat of exclusion from networks to extract price concessions from doctors and hospitals.³⁹ However, narrow networks can also be used by insurers to exclude providers (eg, quaternary referral centres) that are likely to attract expensively ill and hence unprofitable enrollees. In 2015, for instance, among the dozens of insurance plans offered on New York's marketplace, only one—from a consumer cooperative that subsequently suffered financial collapse—covered care at the city's leading cancer centre, Memorial Sloan Kettering, whereas no plans included the prominent New York Presbyterian system.⁴⁰ Although some people see narrow networks as a mechanism for cost control and—theoretically—quality improvement,⁴¹ these networks are sometimes too sparse to provide access to needed specialty care.^{42,43}

The ACA's Medicaid expansion, which targeted the poor and near-poor (many of whom are racial or ethnic

minorities), had great potential to improve health equity. However the Supreme Court's 2012 decision allowing states to opt out of the Medicaid expansion diminished its effect. At the time of writing, 19 states⁴⁴—many of them southern states with large minority populations and poor records on health-care access and outcomes, particularly for the poor⁴⁵—have opted out. Studies comparing non-expansion to expansion states have found less improvement in health-care coverage, use, and access among the former.^{22,46,47} Estimates suggest that state opt-outs will lead to thousands of unnecessary deaths annually,⁴⁸ further compounding existing geographical and racial health inequalities. Notably, the generosity of Medicaid benefits has traditionally varied from state to state.

Additionally, even in states that have implemented the Medicaid expansion, the low fees it offers doctors often consign Medicaid-insured patients to second-class status. Many physicians will not accept Medicaid,⁴⁹ and even when they do, might not offer Medicaid patients equal treatment. For instance, waiting times for new appointments are longer for Medicaid patients than for those with private plans.⁵⁰ Some studies have also found evidence suggesting pervasive segregation of care by insurance status and race: for instance, some large academic centres have maintained separate (and thus invariably unequal) clinic systems for Medicaid and privately insured patients.⁵¹ More generally, physicians are significantly less likely to accept Medicaid in areas with high percentages of non-white people or high levels of racial segregation than are physicians in other areas.⁵²

To address such disparities, the ACA temporarily (for 2 years) boosted Medicaid reimbursements for primary care physicians.⁵³ A secret shopper study conducted before and during this change found an increase (from 58.7% to 66.4%) in the proportion of practices willing to schedule appointments to Medicaid enrollees; this increase was an improvement, but still well below the 86% of privately insured callers who were offered an appointment.⁵³ Regardless, with the expiration of the fee boost, this modest improvement will probably be reversed.

In summary, although Medicaid offers crucial health coverage to the poor, it often provides an inferior and separate tier of access to providers. Even if Medicaid were expanded in all 50 states, the goal of health-care equity would not be met.

Health insurance market reforms

Discriminatory pricing—by age, gender, or health status—has long characterised the US private insurance market. In the past, many insurers charged older adults (ie, price increasing with age) and women higher premiums, excluded coverage of maternity care,⁵⁴ refused to enrol individuals with medical problems (so-called pre-existing conditions), and set annual or lifetime caps on insurance payments. In addition to its coverage

expansion, the ACA included provisions intended to reduce these discriminatory practices (table 1).

First, the law outlawed underwriting (ie, increasing premiums or refusing coverage) on the basis of gender or health status. Second, among non-group plans (ie, plans purchased by individuals, not provided by employers), premiums for older enrollees (≥ 64 years of age) cannot exceed those for young adults (≥ 21 years of age) by more than a factor of three. Third, the ACA required insurance policies to pay for preventive services, including contraception, without cost sharing (ie, out-of-pocket payments) and to cover maternity care.¹⁶ Fourth, the legislation prohibited annual and lifetime caps on insurance payments, improving financial protection against catastrophic illness.

Despite these provisions, increasingly subtle forms of insurance discrimination against the sick persist. Insurers continue to tailor their benefit packages (and, as described above, their provider networks) to discourage high-cost patients from choosing or remaining in their plan. For instance, some insurers require extraordinarily high patient copayments for essential drugs (eg, antiretrovirals and antipsychotics) needed by expensively ill patients. HIV patients enrolled in such plans pay, on average, US\$4892 annually out-of-pocket per drug.⁵⁵ Such pricing tactics effectively skirt regulations prohibiting discrimination against patients with pre-existing conditions.⁵⁵ Some major insurers have also told insurance brokers that they will cease paying commissions to brokers for enrolling customers in more comprehensive, low cost-sharing plans because such plans attract patients in poor health anticipating large medical expenses.⁵⁶

The ACA has improved reproductive health-care access, yet substantial gaps persist. From 2012 to 2015, the percent of reproductive-age women who were uninsured fell from 18.9% to 11.5%.³⁰ The mandate that insurance fully cover contraceptives has reduced out-of-pocket spending for such drugs and devices, yet many insurers still exclude coverage for some items (eg, male condoms and the morning-after pill).^{57,58} And whether or not contraception-related care is actually provided without cost sharing—as required by the ACA—can depend on the vagaries of how physicians code particular office visits.⁵⁷

The ACA's promise of full coverage for contraceptives was also eroded by a 2014 Supreme Court decision excusing employers who claim religious objections from paying for such coverage for their employees. Data suggest that this contraception exclusion loophole has left some women unable to obtain intrauterine devices,⁵⁸ underscoring the risks intrinsic to a system that relies on employers to provide and oversee their employees' health coverage.⁵⁹

These problems have been exacerbated by some state governments' moves to curtail access to contraception and abortion, particularly for poor women. A number of states have imposed onerous requirements on abortion clinics, forcing many to close, and have sharply reduced

funding for family planning programmes.⁶⁰ In one such state—Texas—the cuts resulted in a sharp reduction in the use of long-acting contraceptives and an increase in births among those reliant on injectable contraceptives.⁶¹ In addition, preliminary evidence suggests the states with the most severe abortion restrictions are seeing an increase in women investigating and possibly pursuing self-induced abortions.⁶² These trends might worsen as a result of the 2016 election, given Republican proposals aimed at reducing abortion access.⁶³

Health-care affordability

Despite the ACA's coverage expansions and insurance market reforms, costs remain a potent impediment to health-care equity, even for people with insurance. High out-of-pocket costs compound both health-care inequality and income inequality. With respect to the former, a large body of research demonstrates that cost sharing deters the use of clinical services, particularly for low-income groups.^{64–66} With respect to the latter, cost sharing exacerbates economic inequality because it takes a greater proportion of income from the poor than from the wealthy⁶⁷—an issue addressed elsewhere⁶⁸ in this Series.

Some provisions of the ACA do, notably, lower the burden of cost sharing for certain services (table 1). As described above, the ACA requires insurers to fully cover certain preventive services⁶⁹ and this appears to have increased their uptake.⁷⁰ However, when screening tests uncover problems—for instance, a mammographic opacity or hyperglycaemia—subsequent work-up and treatment can result in onerous cost sharing. Table 2 displays the average deductibles (the amount patients need to pay before insurance kicks in) for employer-sponsored plans and for the plans offered on the ACA's insurance marketplaces.

Regarding employer-sponsored plans, over the past decade the average deductible rose by 255%,⁷² and actual household outlays for cost sharing rose 77%.⁷³ The ACA's failure to reverse the trend toward rising cost sharing is unsurprising for several reasons. First, under the ACA, the actuarial value—ie, the percentage of all health-care costs paid by the insurer for plan members, on average—for employer-sponsored plans can be as low as 60% and still meet the requirements of the employer mandate.¹³ Thus, employees with a 60% actuarial value plan still pay, on average, 40% of their health-care costs out-of-pocket.

Second, the ACA imposed a new excise tax (the so-called Cadillac tax) on employer-sponsored insurance plans with premiums above a certain threshold. These plans are deemed luxurious by virtue of their relatively high premiums and comprehensive benefits, earning them the Cadillac label. However, over time, an increasing percentage of typical plans will be subject to the tax: by 2028, an estimated 42% of employers will have at least one insurance plan affected by the tax unless they trim costs.⁷⁴ Although Congress postponed the tax until 2020, employers will probably respond to it by

	Single coverage	Family coverage
Marketplace plans		
Bronze	\$5731	\$11 601
Silver	\$3117	\$6480
Gold	\$1165	\$2535
Platinum	\$233	\$468
Employer-sponsored plans		
HMO	\$1025	\$2758
PPO	\$958	\$2012
POS	\$1230	\$2467
HDHP/SO	\$2099	\$4332
All plan types	\$1318	Not applicable

Marketplace plans: deductibles are for 2016 and do not reflect cost-sharing subsidies, which are available to households earning less than 250% of the federal poverty level. Data from HealthPocket.⁷⁵ Employer-sponsored plans: deductibles are for 2015, and only reflect deductibles for those plans with a general annual deductible. If plans with no deductible are averaged in, the average overall deductible is \$1077 for single coverage plans (vs \$1318 for all plan types among plans with a general annual deductible). The employer-sponsored family deductible is for plans with aggregate, not per person, deductibles. Data from the 2015 Employer Health Benefits Survey.⁷² Costs expressed in US\$. HMO=health maintenance organisation. PPO=preferred provider organisation. POS=point of service plan. HDHP/SO=high-deductible health plan with a savings option.

Table 2: Average annual deductibles for private insurance by metallic tier (marketplace plan) or plan type (employer-sponsored plans)

raising copayments and deductibles in order to keep premiums below the threshold at which they incur the tax^{70,74} (Republicans previously proposed replacing the Cadillac tax with something similar—a cap on the tax-deductibility of employer-sponsored health insurance plans⁶³—though their March, 2017, bill [described below] would have just delayed implementation of the tax).

For people with non-group plans, most of which are now obtained through the ACA's marketplaces, cost sharing is even more onerous. The ACA regulates this cost sharing in a number of ways. First, the law sets the actuarial value of marketplace plans at four metallic levels: 90% for platinum plans, 80% for gold, 70% for silver, and 60% for bronze (table 1). Second, it mandates caps on out-of-pocket spending (after premiums) for plans sold on the marketplace (in 2017, the out-of-pocket maximums were \$14 300 for a family and \$7150 for an individual).¹⁷ Third, in addition to the subsidies that reduce premiums for enrollees earning less than 400% of the federal poverty level, the law provided a second set of subsidies to offset cost sharing for those earning less than 250% of the federal poverty level.¹⁷ These subsidies, whose legality is currently under challenge from Congressional Republicans, effectively increase the actuarial value of the silver plan to between 73% and 94% (depending on enrollee income).¹⁷

Despite these regulations and subsidies, those with modest incomes sometimes still find themselves financially squeezed.⁷⁵ According to one survey,⁷⁶ almost half of Americans would have to borrow money or sell a possession to pay a surprise expense of \$400—an amount well below the cost sharing resulting from a single test or

hospitalisation under many plans. Similarly, only 37% of non-elderly, non-poor households have the liquid assets necessary to meet the ACA's out-of-pocket maximums for a given year.⁷⁷ Among poor families with at least one uninsured family member, that percentage is even lower.⁷⁷ Finally, these out-of-pocket maximums apply only to care received from in-network providers. Cost sharing for care obtained out of network—even when medically appropriate—has no limit.

Cost sharing in marketplace plans is generally higher than in employer-sponsored plans. For example, one study⁷⁸ estimated that for people with a chronic condition, switching from an employer-sponsored plan to a silver-level marketplace plan would double out-of-pocket spending on drugs. Without subsidies, average deductibles for silver plans in 2016 averaged over \$3000 for individuals and around \$6500 for family plans (table 2).^{17,71} Even with cost-sharing subsidies, patients face high costs at the point of use; a 40-year-old man earning \$25 000 a year, for instance, would still face a median annual deductible of \$2500 and an out-of-pocket maximum of \$5000.¹⁷

Finally, the effect of the ACA on health-care affordability for the poor and near-poor covered by Medicaid is complex. On the one hand, traditional Medicaid imposes virtually no cost sharing on its impoverished enrollees. Hence, many of those covered by the ACA's Medicaid expansion have gained access to care without out-of-pocket costs. However, several states refused to expand Medicaid unless the Obama administration granted them permission to impose new premiums or cost-sharing requirements.⁷⁹ For instance, Indiana requires that enrollees deposit a monthly payment into a health savings account. Though the amount is small, it is substantial for those with meagre incomes.⁸⁰ The ramifications are serious for those who do not or cannot make these payments. People earning between 100% and 133% of the federal poverty level who fail to make their payments lose all benefits for 6 months.⁸⁰ For those earning less than poverty, the penalty is less severe: they only lose dental and vision coverage, but are also subsequently obliged to pay new copayments for doctors' visits, hospitalisations, and medications.⁸⁰ Notably, this programme was implemented by Governor (now Vice-President) Mike Pence, on the advice of Seema Verma, the new head of the Centers for Medicare & Medicaid Services.⁸¹ It might be thus be a harbinger of national changes to Medicaid.

ACA initiatives to maximise value

In addition to expanding coverage and regulating insurance, the ACA aimed to restructure the health-care delivery system to maximise value; these provisions also might have implications for health-care equity. Delivery system reforms (table 1) initially affected only the federal Medicare programme, which has covered virtually all persons aged 65 years and older since 1965. However,

private insurers and state-run Medicaid programmes are following Medicare's lead.

Proponents of so-called value-based reform typically emphasise paying for value, not volume, using financial risk-sharing arrangements that offer providers bonuses for cutting costs and exact fines if they fail to do so, together with pay-for-performance (P4P) that rewards or penalises providers based on their scores on quality metrics. The common thread linking these ideas is that they are intended to reduce costs by penalising the provision of excess care, while relying on P4P to ensure that cuts in the amount of care do not compromise quality.

New value programmes can be divided into two overlapping categories: changes in the manner providers are paid, and a restructuring of health-care delivery.⁸² The former consists of the ACA's new P4P Medicare schemes for hospitals,⁸³ as well as a subsequent value reform—the Medicare Access and CHIP Reauthorization Act of 2015, which will base 18% of payments to office-based physicians on their P4P scores and cost savings. The latter category includes incentives in the ACA to form accountable care organisations (ACOs; described below), together with changes in spending on safety-net providers that care for disadvantaged populations. These programmes have the capacity to affect health-care equity in a variety of ways.

The ACA's P4P initiative involved creating three new P4P Medicare hospital programmes—the Hospital Readmissions Reduction Programme (HRRP), the Hospital Value-Based Purchasing (HVBP) programme, and the Hospital-Acquired Condition Reduction Programme—that in conjunction can result in penalties of 6% of total Medicare reimbursements by 2017.⁸³ Although upgrades of quality for all Americans, particularly the underserved, is a priority, it is far from clear that these programmes will accomplish this. Indeed, such P4P programmes could exacerbate health-care inequality by penalising already cash-strapped safety-net providers; they serve disadvantaged patients whose poor health outcomes could arise from adverse social conditions rather than substandard care. P4P might also backfire if providers avoid disadvantaged and non-compliant patients who drag down their scores.⁸⁴

The overall effect of the ACA's P4P initiatives on health equity remains uncertain. A number of early studies, however, raise concerns that two of the ACA's programmes (HRRP and HVBP) selectively penalise safety-net hospitals.^{85–88}

Moreover, it is unclear whether P4P metrics accurately measure quality. In California, for instance, safety-net hospitals were fined under HRRP because their patients with heart failure, pneumonia, and myocardial infarction had elevated readmission rates.⁸⁸ However, paradoxically, these safety-net hospitals also had lower 30-day mortality for all three conditions.⁸⁸

Some argue that P4P programmes should statistically adjust quality scores for patients' socioeconomic status,⁸⁹ although Medicare's administrators have thus far opposed such adjustment. However, although socioeconomic status adjustment might make P4P fairer, capturing the complex impacts of socioeconomic status on P4P measures is a formidable task. And even if adjustment for socioeconomic status confirmed that safety-net hospitals delivered poor quality care, an appropriate response might be to increase, not decrease, the resources available to these institutions.

The ACA and delivery system change

The push for structural changes in the delivery system—the second element of the ACA's value-based reforms—is embodied in new Medicare programmes that encourage the formation of ACOs. These organisations, which encompass both hospitals and doctors, contract with Medicare to assume financial risk for all of the health care received by a panel of Medicare enrollees.

The ACO strategy has notable parallels to the health maintenance organisation strategy that gained both prominence and notoriety in the 1980s and 1990s.⁹⁰ Both health maintenance organisations and ACOs reward providers for reducing their patients' use of care.⁹⁰ ACOs also incorporate P4P, which supporters assert will not only protect patients from incentives to skimp on care, but could also improve quality across the board, thereby diminishing health-care inequality.⁹¹

Others, by contrast, have argued that ACOs could have “the unintended consequence of reinforcing health care disparities”.⁹² For instance, if profitable hospitals and practices that serve wealthier patients acquire and merge with other similarly profitable providers, the segregation of disadvantaged patients might become only more entrenched.⁹² For now, however, it is too early to judge the equity effects of the ACO strategy.

Finally, the ACA's delivery system reforms included two additional measures directed at safety-net providers, with more immediate equity implications (albeit in different directions). On the one hand, the law earmarked \$11 billion in additional funding for the approximate 1300 federally subsidised community health centres,⁹³ a provision inserted by Vermont Senator Bernie Sanders.⁹⁴ These clinics, located in medically underserved areas, serve about 24 million patients annually.⁹³ On the other hand, the ACA reduced funding for the Disproportionate Share Hospital (DSH) programme, which provides supplemental funding for hospitals in which a large share of patients have Medicaid (which pays low fees and is also a marker for hospitals that care for the uninsured).⁹⁵ The ACA's drafters assumed that the need for these subsidies would decline as coverage was expanded. Yet safety-net hospitals continue to care for many uninsured and underinsured patients, particularly in states that refused to expand Medicaid or have many immigrants whom the ACA's coverage expansion excluded.

Looking ahead: health-care equity in the Trump era

The 2016 election dramatically changed the political landscape. Republicans have long vowed to repeal the ACA and replace it with market-based solutions, but with the election of Donald Trump—a billionaire businessman whose campaign rhetoric was perceived by many as trafficking in crude bigotry—the prospects for repeal suddenly improved. The form that the replacement would take was unclear until March 6, 2017, when the Republican House, led by Speaker Paul Ryan, released a bill called the American Health Care Act (AHCA).^{96–98} Yet Ryan's bill was to experience a rapid demise. It was assailed by hard-right Republicans in the House of Representatives for not going far enough, and it lost support from Republican moderates after Ryan attempted to mollify conservatives by modifying the bill. On March 24, Ryan and Trump cancelled the scheduled vote on the bill.

For the ACA's supporters, this news was met with much applause, although it is not entirely clear that the AHCA will remain in the dustbin of history. Regardless, the AHCA—or something resembling it—will probably serve as the model for right-wing health-care reform in the years to come, and is worth briefly reviewing.

The AHCA,^{96–98} to the surprise of some, would actually have maintained much of the overall structure of the ACA, including insurance regulations such as the one protecting those with pre-existing conditions. Like the ACA, the Republican bill would also have provided tax credits to offset the cost of private health insurance premiums for those not eligible for employer-paid coverage. But because these more regressive credits would not have been tied to the price of insurance (unlike those of the ACA), they would have been inadequate to cover the cost of coverage for many Americans, especially those who were older or who had lower incomes.⁹⁶

The AHCA would have also transformed the Medicaid programme for the poor. Beginning in 2020, federal funding for the Medicaid expansion would have been substantially reduced. At the same time, federal funds would have been allocated to states using either a per-capita formula or a “block grant”,⁹⁹ replacing the current matching system that bases the federal contribution on the actual cost of care delivered. These changes would have slashed federal funding of Medicaid by \$839 billion over a decade,¹⁰⁰ forcing states to reduce the comprehensiveness of their Medicaid coverage, cut eligibility, or both.

Finally, in a last-minute maneuver intended to placate hard-right conservatives, a provision was inserted undermining the ACA's requirement that plans cover “essential health benefits”, which would have promoted the sale of bare-bones plans.

Overall, these provisions would have transformed coverage, providing a defined contribution to insurance premiums rather than a defined set of covered benefits, and they would have slashed Medicaid, effectively so as to fund hundreds of billions of dollars in tax breaks^{96,100} to

the rich and health-care corporations. They also would have dramatically increased the number of the uninsured by an additional 24 million people.^{96,100}

By reducing protections for the sick and those with lower incomes, the AHCA would clearly have exacerbated health-care inequalities; those who care about health-care equity will certainly oppose such measures. At the same time, however, the political wisdom of championing the health-care status quo seems dubious. Although the AHCA was profoundly unpopular, it is also clear that voters want health care to change—a sentiment that seems reasonable in view of the enormous problems that persist despite the ACA's advances. Hence, equity-minded advocates might best counter the Republican agenda with a forward-looking health-care agenda of their own. A single-payer, Medicare-for-all reform—championed by Senator Bernie Sanders during his upstart presidential campaign, as well as by many physicians¹⁰¹ and the nation's largest nurses union—would, in our view, best address health-care inequalities.

Such reform would replace the ACA's patchwork of coverage provisions with a tax-funded universal programme. It would comprehensively cover all US residents without cost sharing (as is currently done in Canada and the UK), eliminating financial barriers to care. Importantly, it would also end inequalities in access based on type of insurance, and probably reduce both economic⁴ and racial¹⁰² health-care inequalities. Although passage of such thoroughgoing reform is unlikely in the near term, it might be the most feasible option once political winds shift and politicians catch up with the views of the public: single payer, after all, is already more popular than the ACA, favoured by 58% of the US public.¹⁰³

Conclusion

Decades ago, Julian Tudor Hart noted that “the availability of good medical care tends to vary inversely with the need of the population served”.¹⁰⁴ His observation, derived largely from experience in the UK, aptly describes US health care.

In 2010, prior to the ACA, one in six Americans was uninsured.⁶ Insurers could—and often did—discriminate against older and sicker individuals as well as women. Racial inequities in coverage and access were pervasive. Illness often led to financial ruin. And limited health-care access among the uninsured resulted in tens of thousands of unnecessary deaths annually¹⁸—and incalculable suffering for many more.

Through a patchwork of provisions, the ACA has ameliorated the situation, particularly benefiting blacks, Hispanics, and the poor. Yet serious deficiencies have persisted. Many people remain uninsured and underinsured. Wealth continues to be a crucial factor in determining health and access to medical care. Narrow-network insurance plans bar many from care at leading hospitals and from the doctors of their choice. Patient

cost sharing, a regressive form of funding that is on the rise, often forces non-wealthy families to choose between health care and other necessities. And despite the ACA's Medicaid expansion aiding millions of Americans, the programme continues to consign poor patients to a separate, and sometimes lower, tier of care.

Change is needed. However, the market-based reforms proposed by Republicans would callously cut coverage and exacerbate already pernicious inequities. By contrast, a thorough overhaul of US health care—universal, comprehensive, tax-funded coverage—remains the best reform option to close the equity gap.

Contributors

Both authors contributed equally to the preparation of the manuscript.

Declaration of interests

Both authors report research grant support from the National Institutes of Health, and are active members of Physicians for a National Health Program, an organisation that advocates for single-payer health care in the USA.

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