

JOURNAL OF
ADOLESCENT
HEALTH

www.jahonline.org

Commentary

Health, Safety, and Well-Being of Adolescents and Young Adults in the United States: What Is at Stake Beyond 2021?



Abigail English, J.D. a,b,*, and Claire D. Brindis, Dr.PH. c,d,e

- ^a Center for Adolescent Health & the Law, Chapel Hill, North Carolina
- ^b Gillings School of Global Public Health, UNC Chapel Hill, Chapel Hill, North Carolina
- ^c Division of Adolescent & Young Adult Medicine, UCSF, San Francisco, California
- ^d Adolescent and Young Adult Health National Resource Center, UCSF, San Francisco, California
- e Philip R. Lee Institute for Health Policy Studies, UCSF, San Francisco, California

Policy opportunities exist in the U.S. to pursue initiatives that can help protect young people [1-4]. This commentary explores the terrain of what is at stake for the health, safety, and well-being of adolescents and young adults (AYAs) in 2021 and beyond. First, we place AYA health within a broad context, exploring the overarching current challenges of COVID-19, systemic racism, and climate change along with the role of social determinants of health (SDHs) in overcoming these challenges and achieving health equity. Next, we focus on three critical areas of ongoing concern for the health of AYAs and discuss past developments and emerging issues in health policies related to health insurance, family planning and abortion, confidentiality, and technology. We identify key policy options to improve the health, safety, and wellbeing of AYAs. Finally, this commentary challenges policymakers, healthcare professionals, advocates, and young people to collaborate in bringing the needs of AYAs to the forefront in policy development and implementation.

Broad Context and Overarching Challenges for Adolescent and Young Adult Health

The COVID-19 pandemic not only has ongoing direct effects on health, but also has profoundly altered educational experiences, harmed mental health, increased housing instability, caused job loss, and created social isolation. Heightened recognition of systemic racism has starkly emphasized long-standing disparities that often fall most heavily on young people of color in many domains also affected by the pandemic, including access to health care and technology. The effects of climate change are felt already and also pose looming threats for the future health and safety of young people, with the greatest threats for AYAs of color. These challenges together have been characterized as a

Conflicts of interest: The authors have no conflicts of interest to disclose.

* Address correspondence to: Abigail English, J.D., 249 Fox Ridge, Pittsboro, NC 27312.

E-mail address: abigail.english.cahl@gmail.com (A. English).

"triple existential threat" [5]. Understanding the full impact of these three challenges is essential for formulating effective immediate and longer term responses.

COVID-19

The eventual impact of COVID-19 on AYAs was not immediately clear in the earliest days of the pandemic in 2020. Soon, however, increasing numbers of cases were reported among young adults, including many cases of asymptomatic or mild infection but also more serious symptoms, organ damage, and concerns about "long covid" [6–10]. Transmission was increasing both within settings such as colleges and universities and in surrounding communities [6]. Risks were also heightened for vulnerable populations of AYAs, such as those experiencing homelessness or in settings such as juvenile justice or immigration detention facilities [11–14].

Harms of the pandemic for AYAs have extended far beyond direct health effects. Many young adults lost jobs—in restaurants and bars, retail, arts, entertainment, hospitality, and tourism—while young essential workers experienced high risks of exposure—in hospitals, grocery stores, farms, and meatpacking plants [15–18]. The adverse educational impact of COVID-19 fell heavily on AYAs who were abruptly relegated to remote learning for a year or longer, dramatically slowing their educational progress or excluding them entirely due to logistical challenges or technological limitations [19,20].

In the U.S., the availability of effective vaccines and rising vaccination rates in early 2021 were associated with declines in COVID-19 cases, hospitalizations, and deaths, offering potential for improved educational and employment opportunities for AYAs [21]. After an initial focus on vaccinating healthcare workers and the elderly, by the spring of 2021 vaccines were more widely available to young adults and soon were approved for younger adolescents [22–24]. Access limitations, vaccine hesitancy, logistical impediments, and resistance among some

parents to vaccinating their children all complicate the rollout of vaccines to AYAS [25–27]. As of mid-2021, vaccination among young people under age 30 lagged behind the rates in older adults [28,29]. At the same time, increases in hospitalizations among adolescents were observed, highlighting the importance of vaccine outreach and uptake in the adolescent and young adult age groups [30]. As the Delta variant spreads throughout the U.S. in the summer of 2021, the threats of COVID for young people and the importance of vaccination in this age group increased further [31]. Ultimately, the effects of COVID-19 on young people will be felt long after new cases and hospitalizations have dropped, with some who had been infected experiencing "long COVID"; the pandemic may turn out to have been an adverse childhood event (ACE) for this entire generation.

Overall, the burdens of the pandemic for AYAs fell most heavily on young people of color, both manifesting and exacerbating pre-existing racial disparities in health, education, and employment. The burdens included not only the rates of COVID-19 cases and the challenges in accessing testing, treatment, and vaccination, but also the simultaneous indirect effects of the pandemic on the mental health, substance use, and sexual and reproductive health (SRH) of AYAs.

Systemic racism

Disparities in health and healthcare access and quality have been extensively documented [32–35]. Racial disparities have been particularly acute, with severe adverse outcomes for Black, Indigenous, and People of Color (BIPOC) and Asian American and Pacific Islander (AAPI) communities [36,37]. Each group of young people of color experiences discrimination in some distinct ways but collectively BIPOC and AAPI AYAs are marginalized and suffer the effects of conscious and unconscious bias.

The Centers for Disease Control and Prevention has declared systemic racism to be a public health emergency [38,39]. Racism is a key driver of health inequity with profound negative effects on physical and mental health, including higher rates of illness and death for racial and ethnic minority groups compared to white counterparts [33]. Most recently, COVID-19's disproportionate impact on racial and ethnic minority populations has heightened awareness of longstanding inequities in health and health care [33,40]. These inequities are heavily influenced by social determinants and must be understood through a socioecological lens [39,41]. Racism itself has been identified as a core SDH [34]. The overwhelming impact of racism is compounded by other forms of discrimination based on ethnicity, nationality, gender, age, and sexual identity, underscoring the importance of the multiple intersecting identities of young people.

Ultimately, reversing the deleterious effects of racism for the health of young people will require addressing its structural manifestations not only in the healthcare system but in all systems affecting AYAs in which longstanding discrimination has been rampant: education, housing, juvenile and criminal justice, immigration, and employment. Recognizing the multiple dimensions of racism—which have been characterized as institutionalized, personally mediated, and internalized—is a necessary but not sufficient step in mitigating the severe adverse impact of racism on the health, safety, and well-being of AYAs and working toward greater health equity for this age group [42,43].

Climate change

In 2021 alone, the effects of climate change have been experienced in communities throughout the U.S. and the world with increasing numbers of severe storms, fires, floods, and excessive heatwaves. Each of these disruptive events is harmful to the health and physical safety of the young people who are directly affected, but also has indirect and long-term effects on their physical and mental health and well-being through housing destruction, job loss, and educational disruption [44]. Additionally, young people are experiencing increasing anxiety about their own long-term safety, quality of life, and survival as well as loss of biodiversity and the survival of the planet [45].

As with COVID-19, many of the burdens of climate change are falling most heavily on people of color and will continue to do so [46–48]. The escalating harmful effects of climate change are layered on top of the already pernicious health harms associated with long known and recently revealed forms of pollution of the air, water, and soil. The environmental justice movement has starkly highlighted the correlation between environmental and climate-related harms, low-income communities, and communities of color. Along with racism, the adverse impacts of environmental conditions are key SDHs.

Role of Social Determinants in Overcoming Challenges and Achieving Health Equity

Two decades ago, "The Adverse Childhood Experiences (ACE) Study" found relationships between the childhood traumas associated with exposure to abuse and household dysfunction and major causes of death in adulthood [49]. A decade later, the World Health Organization issued a report calling for achieving health equity within a generation through action on the SDHs [50]. Recent understanding of ACEs has been expanded to include both the risk and protective, or positive, factors that can increase or decrease the likelihood of ACEs [51,52]. The interrelated concepts of ACEs (or PACEs) and SDH emphasize the critical importance of positioning any understanding of AYA health, safety, and well-being in a broad context that extends beyond the specific parameters of health care. Consideration is essential of the socioecological factors, both proximal and distal factors and forces, that impact the health of young people—not only during their AYA years, but with deep roots earlier in childhood and long-term manifestations far into adulthood [53,54]. The COVID-19 pandemic and increased focus on systemic racism underscored the importance of developing specific health policy approaches that encompass these considerations, supporting existing policies that promote the health of AYAs, and remedying past policy deficiencies that undermine their health. Healthcare professionals, researchers, policy organizations, activists, and young people themselves are working in many arenas—not only health care but also the economy, the environment and climate change, immigration, criminal justice, and civic engagement—to further the health, safety, and well-being of AYAs.

Critical Areas of Ongoing Concern for Adolescent and Young Adult Health

From a health perspective, AYAs experience multiple health concerns: injuries, violence, mental health, substance use, SRH, communicable diseases, and chronic conditions [55]. Effectively addressing these issues on a population basis requires placing

them within a socioecological framework that also acknowledges the context of systemic racism and climate change, as well as recognizing the importance of high-quality healthcare systems and health care. Concerns in three areas—mental health, substance use, and SRH—expose past and ongoing health system deficiencies, affecting progress in policy, public health, and the individual health of AYAs (Tables 1 and 2).

Mental health

The mental health concerns of AYAs were great and increasing even prior to the COVID-19 pandemic, spanning a wide range of severity and requiring appropriate diagnosis and treatment [56,57]. Suicide is the second leading cause of death in AYAs and suicide attempts are increasingly common [58,59]. Risk factors for suicide among AYAs include major depression, psychotic disorders, and substance use disorders; previous suicide attempts; a history of physical or sexual abuse; family history of suicide attempts; and lesbian, gay, bisexual, transgender, or gender (LGBTG) nonconforming identity [60]. During the COVID-19 pandemic, the social and educational isolation of AYAs contributed to significantly increased incidence of mental health suffering along with dramatic limitations in access to preventive and acute mental health care and supportive services [61,62]. Mental health crises requiring emergency treatment manifested throughout the AYA age spectrum, including even the youngest adolescents [63]. During the COVID-19 pandemic, the lack of sufficient mental health providers, especially for severe psychiatric disorders, an ongoing issue for AYAs, was exacerbated by increased need combined with logistical access challenges [62,63]. Many young people who experience serious mental health crises linger in hospital emergency departments for lack of alternative treatment options [56,64].

Substance use

A significant percentage of AYAs use alcohol and illicit drugs, with variations among trends in use of different substances and for different age, racial, and ethnic groups [57,65]. Overall, however, substance use and disorders represent important

Table 1Health system deficiencies exacerbated during COVID-19 pandemic for three critical health concerns of AYAs

Health issue	Health system deficiencies exacerbated during COVID-19 pandemic
Mental health	Insufficient number of mental health providers Limited availability of preventive and acute mental health services
	Long stays in emergency departments for AYAs experiencing crisis
Substance use	Limited availability of age-appropriate prevention and treatment for substance use
	Inadequate response to opioid deaths among AYAs during opioid and COVID pandemics
	Inability to scaleup availability of substance use services for AYAs during a crisis
Sexual and reproductive	Inadequate implementation of consent and confidentiality protections
health	Distance and transportation obstacles in both rural and urban areas
	Discrimination based on race, ethnicity, gender, and sexual orientation

AYA = adolescents and young adults.

threats to health and safety of AYAs. At the extreme, high levels of substance use are associated with accidents, homicide, and suicide, which are the three leading causes of death among adolescents [66]. AYAs also experienced a tripling of opioid-related deaths during the opioid epidemic in recent decades, attributable in part to polysubstance use [67]. During the COVID pandemic, the past year witnessed a 30% increase in drug overdose deaths overall [68]. Short of death, however, substance use disorders in AYAs are associated with other behavioral problems and mental health concerns. Nevertheless, availability of ageappropriate services to prevent early initiation of substance use and to treat addiction and disorders is severely limited [69]. Limitations in access to substance use related services were exacerbated during the COVID-19 pandemic at the same time that factors contributing to the risk of substance use and abuse increased [70].

Sexual and reproductive health

SRH is essential to overall health and well-being [71]. To support their SRH, AYAs need access to evidence-based, holistic, and nonstigmatizing information, education, and services. Comprehensive SRH services must address pregnancy and sexually transmitted infections (STIs), including HIV, and must promote healthy sexual relationships; prevention of STIs and unintended pregnancies is especially important [72,73].

The vast majority of young people have had sexual intercourse by early adulthood—20% by age 15%, 65% by age 18%, and 92% by age 25—and pregnancies are often unintended, with the highest rates among low-income women, young adults ages 18—24, and women of color [73]. AYAs also experience high rates of STIs and HIV—half of new STIs and more than 20% of new HIV infections—with disproportionate rates of HIV infection among young black and Hispanic gay, bisexual, or other men who have sex with men [73].

Two critical health services are contraception and abortion. Confidentiality concerns are significant for many AYAs, but legal protections are either inadequate or not fully implemented [74]. Although both adolescents and young adults need access to contraception and abortion services, consent and confidentiality limit access for adolescents under age 18 who are legally minors, especially for abortion services [75,76]. Access is also limited by geography and transportation problems in both rural and urban areas [77]. SRH services must be available to both heterosexual and LGBTQ young people, who often experience discrimination when seeking SRH services and other health care [78,79].

Key Health Policy Developments

Against this broad backdrop, specific developments in health policy have particular significance for AYAs. Of great importance are the Affordable Care Act (ACA), Medicaid, the Title X Family Planning Program, abortion restrictions, the HIPAA Privacy Rule, the 21st Century Cures Act, and telehealth and technology. The design and implementation of policies in each of these areas have had major positive impacts on insurance coverage and healthcare access for AYAs but important gaps remain (Table 2).

Affordable Care Act

The ACA has survived relatively unscathed through a tumultuous decade. All age groups benefited from many of its

Table 2Positive and negative aspects of health policies for AYAs

Policy	Beneficial elements for AYAs	Problems/gaps for AYAs
Affordable Care Act	Premium subsidies	No coverage for dental, vision, and hearing services for young adults
	Cost sharing protections	Employers' religious exemptions limit contraceptive access for AYAs
	No lifetime/annual caps	Not all contraceptive methods covered in all health plans
	No pre-existing condition exclusions	Multiple lawsuits create uncertainty
	10 essential health benefits required	Immigrant youth largely excluded
	Dependent coverage to age 26	
	Medicaid expansion	
	Coverage of mental health and substance abuse services	
	No cost sharing for preventive services	
	Prohibition on discrimination	
Medicaid	Expansion of eligibility for single childless adults without disabilities up to 138% FPL	Medicaid expansion made optional by U.S. Supreme Court
	with federal support	Coverage gap in nonexpansion states for young with incomes under 100% FPL
	Minimum eligibility requirement raised to age 18	Medicaid coverage of young adults remained static in nonexpansion states
	Streamlined application, enrollment, and renewal procedures	Limited health literacy of AYAs impedes enrollment
	Medicaid coverage of young adults increased in expansion states	
Family planning	Strong confidentiality protection in Title X	Significant damage to Title X infrastructure due to 2019 regulations
and abortion	Comprehensive services covered in Title X	Increasing abortion restrictions in state laws
	Medicaid family planning eligibility expansions increase access	More conservative U.S. Supreme Court poses risk to federal constitutional protection for
	Harmful 2019 Title X regulations rescinded in 2021	abortion
	Some state constitutions include right of privacy that protects access to abortion	
HIPAA Privacy	Protects health information of adolescent minors as well as young adults	At risk for weakened protections if 2021 proposed regulations become final as written
Rule	Incorporates Title X and state law confidentiality protections for determining	
	parents'access to minors' health information	
21st Century		Information blocking ban creates challenges for adolescent halthcare providers
Cures Act 13		Lack of IT granular segmentation limits ability to separate AYAs' shareable from
		sensitive information

 $\label{eq:AYA} AYA = adolescents \ and \ young \ adults; \ IT = information \ technology.$

elements; other features were especially important for AYAs [80–84]. Young adults experienced high rates of uninsurance and low access to care prior to the ACA and were thus positioned to experience significant benefits [85,86]. The prohibition against discrimination on the basis of race, color, national origin, sex, age, or disability was significant for marginalized groups of young people [87].

The ACA improved health insurance access for specific groups of vulnerable young people: AYAs in and aging out of foster care; AYAs involved in juvenile and criminal justice systems; and homeless youth [88]. Significant overlap exists among these groups: overrepresentation of young people of color, with back AYAs especially heavily represented; higher rates of serious health problems than the general population, with mental health, substance abuse, and sexual health issues of particular concern; disconnection from family and social supports; high uninsured rates; and heavy reliance on Medicaid [88]. Another vulnerable group, immigrant youth, however, was largely excluded from opportunities to benefit from the ACA [89].

From the beginning, the ACA was subject to political attacks. attempts in Congress to repeal it, executive branch efforts to either strengthen or undermine it, and lawsuits challenging its overall constitutionality and the validity of specific provisions [90–92]. Although some lawsuits are ongoing, especially related to religious objections to contraceptive coverage, the ACA has largely withstood attacks [93]. Congress has not repealed the law, succeeding only in reducing to zero the penalty for not purchasing health insurance, and during the COVID-19 pandemic has expanded opportunities for enrollment and increased premium supports [94,95]. Administrative efforts to undermine the ACA between 2017 and 2020 are being reversed and improvements initiated [96,97]. The U.S. Supreme Court has three times rejected efforts to dismantle the ACA, avoiding dramatic damage to AYAs, millions of whom would have lost coverage and access to benefits of critical importance to their health and well-being [98-102].

Medicaid

The ACA contained multiple provisions designed to expand, improve, or fill gaps in Medicaid, many of which benefited adolescents and, especially, young adults [83,86,88,103]. For example, the ACA required states to continue Medicaid coverage to age 26 for young people aging out of foster care—a group that is disproportionately black and is likely to experience homelessness, be unemployed, and lack health insurance [88].

The ACA's original requirement for states to expand Medicaid eligibility was converted to an option by a U.S. Supreme Court decision in 2012 [103]. The Medicaid expansion option enabled single childless young adults without disabilities to qualify for Medicaid for the first time in many states [88,104,105]. It also had a beneficial effect on racial disparities [40]. As of August 2021, 39 states and the District of Columbia had expanded Medicaid eligibility; 12 states had not, in spite of additional incentives included in the 2021 American Rescue Plan [95,106].

In states that did not expand Medicaid, a significant coverage gap remains: young adults with incomes below 100% of FPL who do not qualify for Medicaid in their state also are unable to enroll in ACA plans [107]. Young adults would benefit more than other age groups if the remaining states were to implement the expansion [107,108]. In non-expansion states young adults experience worse health outcomes but are precluded from the

increased access to services and health benefits experienced by those in expansion states [108].

Family planning and abortion

For decades federal and state policies have had huge effects on access to family planning and abortion services for AYAs. Key developments have occurred in the federal Title X Family Planning Program and in state laws restricting abortion access.

The federal Title X Family Planning Program has long been a cornerstone of family planning services for AYAs. Since 1970, Title X has offered confidential family planning services to adolescents [109,110]. Millions of AYAs have received Title X services [111,112]. Never immune to attacks, Title X has been under fire in recent years on several fronts, including efforts to exclude Planned Parenthood from participating in the program as well as major regulatory restrictions issued in 2019 [113,114]. The 2019 rules tore at the fabric of the program and caused major upheaval in service delivery, with more than 900 sites leaving Title X [115,116].

For adolescents specifically, the most problematic aspects of the 2019 regulations were the expanded and onerous requirements related to family involvement and mandated reporting of child abuse, child molestation, sexual abuse, rape, incest, or human trafficking [117]. In October 2021, these damaging regulations were reversed with a new final rule and, for now at least, the U.S. Supreme Court has stayed out of the fray [118-120]. Even so, the harm suffered by Title X infrastructure will take time to remedy, with ongoing challenges for AYAs. Although many young people gained insurance coverage for contraceptive services due to the ACA, publicly supported family planning centers remain essential because of their strong protection of confidentiality, the reality that many who are eligible for Title X services lack public or private insurance, and the limitations of contraceptive coverage in plans offered by religiously affiliated employers [121].

The abortion arena is even more fraught, with accelerating enactment of abortion restrictions by states. In 2021 alone, more than 100 abortion restrictions have been passed by state legislatures [122]. These restrictions are in addition to the parental involvement laws in 38 states that require minors to notify parents, obtain their consent, or seek authorization in a judicial bypass procedure [123]. A recent Texas law bans abortions after 6 weeks of gestation and empowers individuals rather than state officials to enforce the ban by filing lawsuits seeking payouts of thousands of dollars. An increasingly conservative U.S. Supreme Court allowed the Texas law to go into effect, while litigation about its constitutionality continues, and in late 2021 will hear a case involving Mississippi's 15-week ban, which could result in overturning Roe v. Wade [124,125].

HIPAA Privacy Rule

Research findings as well as policies and ethics codes of all major healthcare professional organizations recognize the importance of confidentiality protections for AYAS [126,127]. The HIPAA Privacy Rule protects their healthcare information [128]. The HIPAA privacy protections for young adults are the same as for all adults; specific requirements apply to the information of adolescents who are minors [128]. Notably, when minors have

Table 3Key approaches and policy options to protect AYA health, safety, and well-being

ncy approaches and	policy options to protect 1111 licatin, salety, and wen being
Policy goal	Key approaches and policy options
Universal health	Varied configurations of "Medicare for All"
insurance	Incremental expansion of Medicare to additional age groups
	Continued expansion of the ACA with a public option included
	Expansion of Medicaid in remaining nonexpansion states
	Closing the coverage gap between Medicaid and ACA in nonexpansion states
	Aligning cost sharing protections in employer-based plans with those in ACA plans to reduce
	underinsurance
Access to	Maintain or increase federal and state funding
healthcare services	support to ensure coverage of comprehensive services for AYAs in public and private health
	insurance
	Fill gaps and complement health insurance by increasing funding for direct service delivery
	programs that reach AYAs, especially marginalized youth
	Expand efforts to fully implement mental health parity
	Enact federal or state legislation that protects abortion
	access for all ages Remove barriers or create alternative payment/funding
	structures to overcome extraneous impediments
	such as religious exemptions
	Make permanent policies facilitating telehealth that were adopted during the pandemic and expand
	options further
COVID-19	Conduct specific outreach to AYAs to encourage and facilitate vaccination
	Increase community relationship building and collaborative measures to increase vaccine
	confidence and reduce hesitancy
	Allow release and paid time off in education and
	employment for vaccination, testing, and treatment for COVID-19 without punitive
	consequences
	Structure federal and state policies for public health services and insurance to ensure that adolescents and
	young adults can receive COVID-19 services without charge
	Conduct research on "long COVID" that includes focus
	on the symptoms and manifestations most commonly experienced by adolescents and young
Canfidantiality	adults
Confidentiality protections	Maintain existing protections for confidentiality in state minor consent and medical privacy laws
	Maintain protections in the HIPAA Privacy Rule for adolescent minors
	Adopt clear interpretations of Privacy, Preventing Harm,
	and Infeasibility exceptions to information blocking in the 21st Century Cures Act regulations that protect
	AYAs Adopt policies to ensure implementation of IT solutions
	that facilitate separation or segmentation of shareable from sensitive information
Equity	Support healthcare access for marginalized youth by
	assessing health policies through a lens that includes PACEs and SDH
	Prioritize some needs of marginalized youth to ensure comparability in access with other AYAs
	Provide extra protections and support for marginalized
	youth in healthcare settings and service delivery to overcome past inequities and
	discrimination
	Pursue equitable policies directed at ameliorating the
	effects of climate change experienced more severely by marginalized populations
ACA — Affordable Car	re Act: AVA — adolescents and young adults: IT — information

ACA = Affordable Care Act; AYA = adolescents and young adults; IT = information technology; SDH = social determinant of health.

consented to their own care, parents' access to the minor's information depends on the requirements of other federal laws, such as Title X, or state laws, which means that confidentiality protections contained in state laws also have federal protection under the HIPAA Privacy Rule [128]. In 2021, significant modifications to the HIPAA Privacy Rule were proposed that were intended to facilitate coordinated care and sharing of health information to promote patient safety [129]. In proposed form the modifications were too broad in allowing sharing the protected information of AYAs with parents and other third parties; the ultimate content of any changes is not known while issuance of a final rule is pending.

Twenty-First Century Cures Act

Recently, confidentiality protection for AYAs has become more challenging as a result of the 21st Century Cures Act. Regulations issued by the Office of National Coordinator (ONC Rule) implementing the Cures Act took effect in 2021 [130]. The ONC Rule's information blocking ban has major implications for the confidentiality of electronic health information [131]. The Rule has unintended consequences for AYAs, whose privacy may be compromised, and for healthcare professionals caring for this age group, who face challenges in maintaining confidentiality protections for their patients' sensitive health information [132–135]. Three of the Rule's information blocking ban exceptions-Privacy, Preventing Harm, and Infeasibility—are particularly relevant for AYAs [131,136]. Of special importance is the extent to which the Preventing Harm exception will be interpreted as covering emotional as well as physical harm, with guidance anticipated from ONC. For AYAs and their providers, compliance with the Rule while providing meaningful protection of privacy will depend on the development of methodologies for granular segmentation that allow for general sharing of electronic health information while enabling protection of sensitive information [137-139].

Telehealth and technology

A striking development in healthcare practice and policy during the COVID-19 pandemic was the swift transition in providing health care from in-person to virtual formats. Institutions that were reluctant to implement telehealth shifted to doing so in a matter of weeks [140-142]. Impediments in federal and state law and in policies of health insurers were suspended, benefiting all age groups; whether those policy shifts will remain post-pandemic is unclear [143,144]. Telehealth services for AYAs offer great advantages [145]. During the pandemic, clinical care could continue while limiting exposure to the virus. Pandemic considerations aside, telehealth visits offer increased access for specific groups of patients, such as those in rural areas or who face transportation limitations as well as those who need access to specialists not available where they live [146]. Telehealth challenges include confidentiality concerns for patients who may not have a private space in which to engage in virtual visits, which is especially important for visits for sensitive concerns related to mental health, substance use, and sexual health [145,147]. Some young people also have inadequate internet access due to limited bandwidth and cost considerations.

Policies to Improve Health, Safety, and Well-Being of Adolescents and Young Adults

Numerous reports contain recommendations and policy options for improving the health, safety, and well-being of AYAs [148–151]. Some offer comprehensive suggestions encompassing multiple issues and others focus on a particular health problem, population group, service delivery program, or policy challenge. The recommendations of these reports offer important guidance for future policy development. The discussion here focuses on policy approaches and options in a series of arenas of current urgency and importance (Table 3). In each of these areas, maintaining a focus on overcoming the impact of racism and achieving health equity is essential.

Reaching universal health insurance coverage

Affordable comprehensive health insurance coverage should be available for all AYAs based on these principles:

- Elimination of income, disability, parenting status, and other individual characteristics as eligibility criteria to exclude adolescents or young adults from coverage
- No exclusion from coverage as a result of homelessness, family separation, foster care, juvenile detention or incarceration, or immigration status
- Increased efforts to ensure coverage for young people of color, LGBTQ, and other marginalized AYAs

These principles should guide future assessment of policy options that have been and will be considered as means to achieve universal health insurance coverage. Strategy ideas, some of which have been incorporated into proposed legislation, include some designed to achieve universal coverage and others aimed at short-term fixes. All should be carefully evaluated to determine their implications for AYAs (Table 3).

Expanding access to healthcare services

Access to comprehensive preventive, acute, and chronic healthcare services for all AYAs should include:

- Elimination of discrimination based on race, ethnicity, gender, sexual orientation, and other factors leading to marginalization
- Expansion of age-appropriate mental health and substance use prevention and treatment services
- Improvement in access to all FDA-approved contraceptive methods for both adolescent minors and young adults
- Mitigation or elimination of abortion restrictions that negatively affect young people
- Extension of vision and dental services for young adults as well as adolescent minors
- No imposition of consent requirements or confidentiality limitations unrelated to health or safety

These principles should guide evaluation of options represented by current legislation as well as future policy approaches proposed. As each policy is assessed, consideration should be given to actual and potential burdens on AYAs whose access to quality health care is limited because of race, ethnicity, LGBTQ identity, or other factors leading to marginalization such as foster

care placement, detention or incarceration, or immigration status (Table 3).

Responding to COVID-19

AYAs should have full access to the resources they need to prevent and be treated for COVID-19 and to recover from the ongoing impact of the pandemic on their physical and mental health and well-being through the following:

- Vaccination, testing, and treatment for COVID-19 without upfront, hidden, or surprise charges
- Development of alternatives to consent requirements that impede adolescent minors' access to vaccination
- Sensitivity to the specific needs of AYAs when implementing strategies to overcome low vaccination rates in specific geographic areas and marginalized populations
- Commitment to support long-term health and other social, educational, and employment needs of AYAs stemming from the pandemic
- Collaboration of health care with other systems, such as education and employment, which have contributed to the impact of COVID-19 and have long-term consequences for the health and well-being of AYAs

As the pandemic evolved from one perceived as mostly affecting elderly adults and people with comorbidities to one that is known to imposing significant burdens on many young people, especially those of color, these principles should guide policy development to avoid the worst outcomes (Table 3).

Protecting confidentiality

Confidentiality protections that encourage AYAs to seek necessary care and share relevant information with their healthcare providers should be enhanced by the following:

- Maintenance and expansion of current federal and state legal protections for health privacy and confidentiality
- Modification of EHR and health IT systems to facilitate and strengthen confidentiality protections
- Encouragement without mandates to involve family members or other trusted adults for support
- Expansion of mechanisms to protect privacy in the billing and insurance claims process
- Limitation of any further erosion of confidentiality protection for adolescent minors seeking abortion

These principles can be used to assess policy approaches and options across the board in many arenas. They can be especially helpful in evaluating developments in volatile areas such as mental health, substance use, and SRH, where proposals arise frequently that would limit confidentiality and new approaches to increase protection for young people are needed (Table 3).

Achieving health equity

The health, safety, and well-being of all AYAs can be enhanced if progress is made toward achieving health equity by the following:

- Recognizing and addressing the compounding effect of AYAs' multiple intersecting identities, of race, ethnicity, nationality, gender, age, sexuality, and culture
- Improving health insurance coverage for BIPOC, AAPI, LGBTQ, and other marginalized AYAs
- Eliminating discrimination against marginalized AYAs in access to care and health services delivery
- Ensuring that consideration of PACES and SDH guide development of health policies for young people.

Although reaching health equity is not possible immediately, every relevant policy that is currently in place or developed in the future should be scrutinized to ensure that, to the maximum extent possible, it will contribute to reducing health disparities and achieving equity in health care and beyond (Table 3).

Conclusion

The needs of AYAs should be prioritized to the same degree as those of other groups, such as senior citizens and very young children. Most important is that as new policies are conceived, adopted, and implemented, they be carefully scrutinized and assessed to determine their impact on AYAs. Nuanced policy solutions must consider young people's multiple intersecting identities. Of utmost importance is for this analysis to encompass not only aspirational goals but also the extent to which policies would undermine or preserve existing protections and recent gains for young people.

Opportunities exist in the policy arena to improve the health, safety, and well-being of AYAs. Leveraging these opportunities will require collaborative advocacy on the part of policymakers, healthcare professionals, advocates, and young people. The focus of this advocacy and policymaking must be broad, addressing arenas beyond health care and considering SDHs. For example, if threats posed by climate change, which are unequally distributed and have more severe impacts on marginalized populations, are not addressed, the current and future health, safety, and wellbeing of AYAs will be in dire jeopardy. Similarly, if the impacts of systemic racism—on education, housing, employment, and criminal justice as well as health care—in contributing to inequities throughout society are not addressed, the likelihood of reducing disparities in health and health care will be significantly diminished. Success in using policy to benefit the health, safety, and well-being of AYAs will depend on examining emerging policies and initiatives through a sharp lens of how they will impact young people, prioritizing the interests of AYAs at least to the same extent as other age groups with influential constituencies, and using the voices of young people themselves as a powerful force in advocating for their own benefit.

Acknowledgments

Ms. English's time was supported in part by an unrestricted grant to the Bixby Center for Global Reproductive Health, University of California, San Francisco and Dr. Brindis' time was supported in part by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) (under #U45MC27709, Adolescent and Young Adult Health Capacity Building Program), with supplemental support from HRSA grants # MCHB 5T71MC00003, Leadership education in Adolescent Health. This information or content and conclusions are those of the authors and should not be construed

as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government. The sponsors had no role in the preparation or submission of this article.

References

- [1] The White House. Executive order on advancing racial equity and support for underserved communities through the federal government. 2021. Available at: https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/.
- [2] The White House. Executive order on strengthening medicaid and the affordable care act. 2021. Available at: https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/28/executive-order-on-strengthening-medicaid-and-the-affordable-care-act/.
- [3] The White House. Memorandum on protecting women's health at home and abroad. 2021. Available at: https://www.whitehouse.gov/briefingroom/presidential-actions/2021/01/28/memorandum-on-protectingwomens-health-at-home-and-abroad/.
- [4] The White House. Executive order on tackling the climate crisis at home and abroad. 2021. Available at: https://www.whitehouse.gov/briefingroom/presidential-actions/2021/01/27/executive-order-on-tackling-theclimate-crisis-at-home-and-abroad/.
- [5] Frueh S. Confronting a 'triple existential threat' NAM President Victor Dzau discusses how health and medicine can respond to current crises. National Academies News 2021. Available at: https://www.national academies.org/news/2021/10/confronting-a-triple-existential-threat-nampresident-victor-dzau-discusses-how-health-and-medicine-can-respondto-current-crises.
- [6] Salvatore PP, Sula E, Coyle JP, et al. Recent increase in COVID-19 cases reported among adults aged 18–22 years — United States, May 31– September 5, 2020. MMWR Morb Mortal Wkly Rep 2020;69:1419–24.
- [7] Adams SH, Park MJ, Schaub JP, et al. Medical vulnerability of young adults to severe COVID-19: Illness data from the national health interview survey. J Adolesc Health 2020;67:362–7.
- [8] Centers for Disease Control and Prevention. Long-term effects of COVID-19. 2020. Available at: https://www.cdc.gov/coronavirus/2019-ncov/longterm-effects.html.
- [9] FAIR Health. A detailed study of patients with long-haul COVID: An analysis of private health care claims. https://s3.amazonaws.com/media2.fairhealth.org/whitepaper/asset/A%20Detailed%20Study%20of%20Patients%20with%20Long-Haul%20COVID-An%20Analysis%20of%20Private%20Healthcare%20Claims-A%20FAIR%20Health%20White%20Paper.pdf. 2021.
- [10] Phillips S, Williams MA. Confronting our next national health disaster—long COVID. N Eng J Med 2021;387:577—9.
- [11] O'Brien JRG, Auerswald C, English A, et al. Youth experiencing homelessness during the COVID-19 pandemic: Unique needs and practical strategies from international perspectives. J Adolesc Health 2021;68:236–40.
- [12] Rovner J. COVID-19 in juvenile facilities. The Sentencing Project; 2021. Available at: https://www.sentencingproject.org/publications/covid-19-in-juvenile-facilities/.
- [13] Kribakaran S, Gee D. COVID-19 is threatening the lives of migrant children held in US custody. World Economic Forum; 2020. Available at: https:// www.weforum.org/agenda/2020/05/covid-19-is-threatening-the-livesof-migrant-children-in-us-custody/.
- [14] Kerwin D. Immigrant detention and COVID-19: How a pandemic exploited and spread through the US immigrant detention system. Center for Migration Studies; 2020. Available at: https://cmsny.org/wp-content/uploads/2020/08/CMS-Detention-COVID-Report-08-12-2020.pdf.
- [15] Gould E, Kassa M. Young workers hit hard by the COVID-19 economy: Workers ages 16–24 face high unemployment and an uncertain future. Economic Policy Institute; 2020. Available at: https://www.epi.org/publication/young-workers-covid-recession/.
- [16] Aaronson S, Alba F. Unemployment among young workers during COVID-19. Brookings 2020. Available at: https://www.brookings.edu/research/ unemployment-among-young-workers-during-covid-19/.
- [17] Rodgers WM, Freeman R. The COVID-19 recession is hitting young workers—especially young workers of color—the hardest. The Century Foundation; 2020. Available at: https://tcf.org/content/report/the-covid-19-recession-is-hitting-young-workers-especially-young-workers-of-color-the-hardest/?agreed=1.
- [18] Artiga S, Rae M. The COVID-19 outbreak and food production workers: Who is at risk? Kaiser Family Foundation; 2020. Available at: https://www.kff.org/coronavirus-covid-19/issue-brief/the-covid-19-outbreak-and-food-production-workers-who-is-at-risk/.
- [19] Office for Civil Rights, US Department of Education. Education in a pandemic: The disparate impacts of COVID-19 on America's students. 2021. Available at: https://www2.ed.gov/about/offices/list/ocr/docs/ 20210608-impacts-of-covid19.pdf.

- [20] Human Rights Watch. "Years don't wait for them": Increased inequalities in children's right to education due to the COVID-19 pandemic. 2021. Available at: https://www.hrw.org/sites/default/files/media_2021/05/global_covideducation0521_web.pdf.
- [21] Galvani A, Moghadas SM, Schneider E. Deaths and hospitalizations averted by rapid U.S. vaccination rollout. Commonwealth Fund; 2021. Available at: https://www.commonwealthfund.org/publications/issue-briefs/2021/jul/deaths-and-hospitalizations-averted-rapid-us-vaccination-rollout.
- [22] Dooling K, McClung N, Chamberland M, et al. The Advisory Committee on Immunization Practices' interim recommendation for allocating initial supplies of COVID-19 vaccine — United States, 2020. MMWR Morb Mortal Wkly Rep 2020;69:1857—9.
- [23] FDA News Release. Coronavirus (COVID-19) update: FDA authorizes Pfizer-BioNtech COVID-19 vaccine for emergency use in adolescents in another important action in fight against pandemic. US Food Drug Administration; 2021. https://www.fda.gov/news-events/press-announ cements/coronavirus-covid-19-update-fda-authorizes-pfizer-biontechcovid-19-vaccine-emergency-use.
- [24] Centers for Disease Control and Prevention. How CDC is making COVID-19 vaccine recommendations. 2021. Available at: https://www.cdc.gov/ coronavirus/2019-ncov/vaccines/recommendations-process.html.
- [25] Hamel L, Lopes L, Kearney A, et al. KFF COVID-19 vaccine monitor: Parents and the pandemic. Kaiser Family Foundation; 2021. Available at: https:// www.kff.org/coronavirus-covid-19/poll-finding/kff-covid-19-vaccinemonitor-parents-and-the-pandemic/.
- [26] Quinn SC, Andrasik MP. Addressing vaccine hesitancy in BIPOC communities toward trustworthiness, partnership, and reciprocity. NEJM 2021;385:97–100.
- [27] Morgan L, Schwartz JL, Sisti DA. COVID-19 vaccination of minors without parental consent: Respecting emerging autonomy and advancing public health. JAMA Pediatr 2021;175:995—6.
- [28] Diesel J, Sterrett N, Dasgupta S, et al. COVID-19 vaccination coverage among adults — United States, December 14, 2020—May 22, 2021. MMWR Morb Mortal Wkly Rep 2021;70:922—7.
- [29] Hemlin E, Eckel M, Schultz M. Young adult perspectives on the COVID-19 vaccine: Listening tour findings. Young Invincibles 2021.
- [30] Havers FP, Whitaker M, Self JL, et al. Hospitalization of adolescents aged 12–17 years with laboratory-confirmed COVID-19 — COVID-NET, 14 states, March 1, 2020–April 24, 2021. MMWR Morb Mortal Wkly Rep 2021:70:851–7.
- [31] Citroner G. Young people make up biggest group of newly hospitalized covid-19 patients. Healthline 2021. Available at: https://www.healthline.com/health-news/young-people-make-up-biggest-group-of-newly-hospitalized-covid-19-patients.
- [32] Institute of Medicine. Unequal treatment: Confronting racial and ethnic disparities in health care. Washington, DC: The National Academies Press; 2003.
- [33] Lavizzo-Mourey R, Besser RE, Williams DR. Understanding and mitigating health inequities—past, current, and future directions. N Engl J Med 2021; 384:1681–4.
- [34] Trent M, Dooley DG, Dougé J. The impact of racism on child and adolescent health. Pediatrics 2019;14:1–14.
- [35] NEJM Group. Race and medicine. Available at: https://www.nejmgroup. org.
- [36] Artiga S. Health disparities are a symptom of broader social and economic inequities. Kaiser Family Foundation; 2020. Available at: https://www.kff. org/policy-watch/health-disparities-symptom-broader-social-economicinequities/
- [37] Pillai D, Aggie J, Yellow Horse AJ, Jeung R. The rising tide of violence and discrimination against Asian American and Pacific Islander women and girls. Stop AAPI hate; and national Asian Pacific American Women's Forum; 2021. Available at: https://stopaapihate.org/wp-content/uploads/ 2021/05/Stop-AAPI-Hate_NAPAWF_Whitepaper.pdf.
- [38] Media statement from CDC director Rochelle P. Walensky, MD, MPH, on racism and health. 2021. Available at: https://www.cdc.gov/media/ releases/2021/s0408-racism-health.html.
- [39] Centers for Disease Control and Prevention. Racism and health. Available at: https://www.cdc.gov/healthequity/racism-disparities/index.html.
- [40] Guth M, Artiga S, Pham O. Effects of the ACA Medicaid expansion on racial disparities in health and health care. Kaiser Family Foundation; 2020. Available at: https://www.kff.org/medicaid/issue-brief/effects-ofthe-aca-medicaid-expansion-on-racial-disparities-in-health-and-healthcare/.
- [41] Bogard K, Murry V, Alexander C, eds. Perspectives on Health Equity and Social Determinants of Health. Washington, DC: National Academy of Medicine; 2017. https://nam.edu/wp-content/uploads/2017/12/ Perspectives-on-Health-Equity-and-Social-Determinants-of-Health.pdf.
- [42] Jones CP. Levels of racism: A theoretic framework and a gardener's tale. Am J Public Health 2000;90:1212–5.

- [43] Jones CP. Racism is a public health crisis: now that we see, what do we do?. 2020 Bray Health Leadership Lecture, Oregon State University. Available at: https://health.oregonstate.edu/eid/camara-phyllis-jones.
- [44] Centers for Disease Control and Prevention. Climate effects on health. Available at: https://www.cdc.gov/climateandhealth/effects/default.htm.
- [45] Thompson T. Young people's climate anxiety revealed in worldwide survey. Nature 2021;597:605.
- [46] EPA. Climate change and social vulnerability in the United States: A focus on six impacts. U.S. Environmental Protection Agency; 2021. Available at: www.epa.gov/cira/social-vulnerability-report.
- [47] Cusik D. Past racist "redlining" practices increased climate burden on minority neighborhoods. Scientific American 2020. Available at: https://www.scientificamerican.com/article/past-racist-redlining-practices-increased-climate-burden-on-minority-neighborhoods/.
- [48] Patnaik A, Son J, Feng A, Ade C. Racial disparities and climate change. Princeton Student climate initiative (PSCI); 2020. Available at: https://psci.princeton.edu/tips/2020/8/15/racial-disparities-and-climate-change.
- [49] Felitti VJ, Anda RF, Nordenberg D, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. Am J Prev Med 1998:14:245–58.
- [50] Commission on the Social Determinants of Health. Closing the gap in a generation: Health equity through action on the social determinants of health. Final report of the Commission on Social Determinants of Health. Geneva: World Health Organization; 2008. Available at: https://www. who.int/publications/i/item/WHO-IER-CSDH-08.1.
- [51] Centers for Disease Control and Prevention. Adverse childhood experiences: Risk and protective factors. Available at: https://www.cdc.gov/violenceprevention/aces/riskprotectivefactors.html.
- [52] PACES connection. Available at: https://www.acesconnectioninfo.com/.
- [53] Johnson D, Policelli J, Li M, et al. Associations of early-life threat and deprivation with executive functioning in childhood and adolescence: A systematic review and meta-analysis. JAMA Pediatr 2021;171:e212511.
- [54] Brindis CD, Gutmann-Gonzalez A, Decker MJ. Teenage pregnancy: Trends, predictors, prevention efforts, and future directions. In Encyclopedia of Adolescent Health. Elsevier.
- [55] Park MJ, Scott JT, Adams SH, et al. Adolescent and young adult health in the United States in the past decade: Little improvement and young adults remain worse off than adolescents. J Adolesc Health 2014;55:3–16.
- [56] Stagman S, Cooper JL. Children's mental health: What every policymaker should know. National Center for Children in Poverty; 2010. Available at: https://www.nccp.org/publication/childrens-mental-health-what-everypolicymaker-should-know/.
- [57] Substance Abuse and Mental Health Services Administration. Key substance use and mental health indicators in the United States: Results from the 2018 national survey on drug use and health (HHS Publication No. PEP19-5068, NSDUH series H-54). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration; 2019. Available at: https://www.samhsa.gov/data/sites/default/files/cbhsq-reports/NSDUHNationalFindingsReport2018,NSDUH NationalFindingsReport2018.pdf.
- [58] National Institutes of Mental Health. Suicide. Available at: https://www.nimh.nih.gov/health/statistics/suicide#part_2585.
- [59] Curtin SC. State suicide rates among adolescents and young adults aged 10–24: United States, 2000–2018. Natl Vital Stat Rep 2020;69:1–9.
- [60] Kennebeck S, Bonin L. Suicidal behavior in children and adolescents: Epidemiology and risk factors. Uptodate 2021. Available at: https://www.uptodate.com/contents/suicidal-behavior-in-children-and-adolescents-epidemiology-and-risk-factors#H6.
- [61] C.S. Mott Children's Hospital. How the pandemic impacted teen mental health. Mott Poll Report 2021;38. Available at: https://mottpoll.org/sites/ default/files/documents/031521_MentalHealth.pdf.
- [62] Panchal N, Kamal R, Cox C, Garfield R. Mental health and substance use considerations among children during the COVID-19 pandemic. Kaiser Family Foundation; 2021. Available at: https://www.kff.org/coronaviruscovid-19/issue-brief/mental-health-and-substance-use-considerationsamong-children-during-the-covid-19-pandemic/.
- [63] Cloutier RL, Marshaall R. A dangerous pandemic pair: COVID 19 and adolescent mental health emergencies. Am J Emerg Med 2021;46:776–7.
- [64] First L. Emergency department length of stay for children and adolescents with mental health concerns. 2021. Available at: https://www. aappublications.org/news/2021/04/08/emergency-department-length-ofstay-mental-health-peditrics.
- [65] Johnston LD, Miech RA, O'Malley PM, et al. Monitoring the Future national survey results on drug use 1975-2020: Overview, key findings on adolescent drug use. Ann Arbor: Institute for Social Research, University of Michigan; 2021. Available at: http://www.monitoringthefuture.org// pubs/monographs/mtf-overview2020.pdf.
- [66] Burke P, O'Sullivan J, Vaughan B. Adolescent substance use. Pediatr Emerg Care 2005;21:770–6.

- [67] Lim JK, Earlywine JJ, Bagley SM. Polysubstance involvement in opioid overdose deaths in adolescents and young adults, 1999-2018. JAMA Pediatr 2021;175:194–6.
- [68] National Center for Health Statistics, Centers for Disease Control and Prevention. Provisional drug overdose death counts. 2021. Available at: https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm#datatables.
- [69] Sterling S, Weisner C, Hinman A, Parthasarathy S. Access to treatment for adolescents with substance use and co-occurring disorders: Challenges and opportunities. J Am Acad Child Adolesc Psychiatry 2010;49:637–46.
- [70] Panchal N, Garfield R, Cox C. Substance use issues are worsening alongside access to care. Kaiser Family Foundation; 2021. Available at: https:// www.kff.org/policy-watch/substance-use-issues-are-worsening-alongsideaccess-to-care/.
- [71] National Academies of Sciences, Engineering, and Medicine. Sexually transmitted infections: Adopting a sexual health paradigm. Washington, DC: The National Academies Press: 2021.
- [72] Marcell AV, Burstein GR, AAP Committee on Adolescence. Sexual and reproductive health care in the pediatric setting: Clinical report. Pediatrics 2017:140:e20172858.
- [73] Guttmacher Institute. Adolescent sexual and reproductive health in the United States. 2019. Available at: https://www.guttmacher.org/fact-sheet /american-teens-sexual-and-reproductive-health.
- [74] Copen CE, Dittus PJ, Leichliter JS. Confidentiality concerns and sexual and reproductive health care among adolescents and young adults aged 15— 25. NCHS data brief, no 266. Hyattsville, MD: National Center for Health Statistics; 2016. Available at:, https://www.cdc.gov/nchs/products/ databriefs/db266.htm#confidentiality_concerns_4.
- [75] Guttmacher Institute. An overview of consent to reproductive health services by young people. 2021. Available at: https://www.guttmacher. org/state-policy/explore/overview-minors-consent-law.
- [76] English A. Adolescent experiences and the policy landscape for sexual and reproductive health services: Past, present, and future. J Adolesc Health 2019;64:1–2.
- [77] Bearak JM, Burke KL, Jones RK, et al. Disparities and change over time in distance women would need to travel to have an abortion in the USA: A spatial analysis. Lancet Public Health 2017;2:E493—500.
- [78] Mirza SA, Rooney C. Discrimination prevents LGBTQ people from accessing health care. Center for American Progress; 2018. Available at: https://www.americanprogress.org/issues/lgbtq-rights/news/2018/01/18/ 445130/discrimination-prevents-lgbtq-people-accessing-health-care/.
- [79] Dawson R, Leong T. Not up for debate: LGBTQ people need and deserve tailored sexual and reproductive health care. Guttmacher Institute; 2020. Available at: https://www.guttmacher.org/article/2020/11/not-debate-lgbtq-people-need-and-deserve-tailored-sexual-and-reproductive-health.
- [80] Rosenbaum S. The patient protection and Affordable care Act: Implications for public health policy and practice. Public Health Rep 2011;126: 130–5.
- [81] Center on Budget and Policy Priorities. Chartbook: Accomplishments of Affordable Care Act. 2019. Available at: https://www.cbpp.org/research/ health/chart-book-accomplishments-of-affordable-care-act.
- [82] Collins SR, Bhupal HK, Doty MM. Health insurance coverage eight years after the ACA: Fewer uninsured Americans and shorter coverage gaps, but more underinsured. Commonwealth Fund; 2019. Available at: https:// www.commonwealthfund.org/publications/issue-briefs/2019/feb/healthinsurance-coverage-eight-years-after-aca.
- [83] English A. The patient protection and affordable care act of 2010: How does it help adolescents and young adults. Chapel Hill, NC: Center for Adolescent Health & the Law; and San Francisco, CA: National Adolescent Health Information and Innovation Center; 2010. Available at: https:// nahic.ucsf.edu/wp-content/uploads/2011/02/HCR_Issue_Brief_Aug2010_ Final Aug31.pdf.
- [84] Adams SH, Park MJ, Twietmeyer L, et al. Association between adolescent preventive care and the role of the Affordable Care Act. JAMA Pediatr 2019 2018;172:43—8.
- [85] English A, Park MJ. Access to health care for young adults: The affordable care act is making a difference. Chapel Hill, NC: Center for Adolescent Health & the Law; and San Francisco, CA: National Adolescent and Young Adult Health Information Center; 2012. Available at: https://nahic.ucsf. edu/wp-content/uploads/2012/03/CAHL-UCSF-ACA-Young-Adult-Issue-Brief-_Final_Mar22_2012.pdf.
- [86] Gehr J. Why the Affordable Care Act is critical for young adults. Center for Law and Social Policy; 2017. Available at: https://www.clasp.org/sites/ default/files/public/resources-and-publications/publication-1/Why-the-ACA-Is-Critical-for-Young-Adults.pdf.
- [87] Office for Civil Rights, U.S. Department of Health & Human Services. Nondiscrimination in health care programs and activities. 81 Fed. Reg. 31376. 2016. Available at: https://www.govinfo.gov/content/pkg/FR-2016-05-18/pdf/2016-11458.pdf.
- [88] English A, Scott J, Park MJ. Implementing the Affordable Care Act: How much will it help vulnerable adolescents and young adults? Chapel Hill,

- NC: Center for Adolescent Health & the Law; and San Francisco, CA: National Adolescent and Young Adult Health Information Center; 2014. Available at: https://nahic.ucsf.edu/wp-content/uploads/2014/01/Vulne rablePopulations_IB_Final.pdf.
- [89] Kenney GM, Huntress M. ASPE issue brief: The Affordable care Act: Coverage implications and issues for immigrant families. Urban Institute; 2012. Available at: https://aspe.hhs.gov/sites/default/files/migrated_legacy_files//43811/ib.pdf.
- [90] Jost TS. What do the courts have in store for the ACA? An update on health reform lawsuits. Commonwealth Fund; 2019. Available at: https:// www.commonwealthfund.org/blog/2019/what-do-courts-have-store-acaupdate-health-reform-lawsuits.
- [91] Jost TS, Keith K. ACA litigation: Politics pursued through other means. J Health Polit Policy Law 2020;45:485—99.
- [92] Perkins J. The Affordable Care Act in court—litigation continues unabated. N C Med J 2020;81:386–8.
- [93] Keith K. Supreme Court upholds broad exemptions to contraceptive mandate—for now. Health Affairs Blog 2020. Available at: https://www. healthaffairs.org/do/10.1377/hblog20200708.110645/full/.
- [94] Rovner J. Timeline: Despite GOP's failure to repeal Obamacare, the ACA has changed. Kaiser Health News; 2018. Available at: https://khn.org/ news/timeline-roadblocks-to-affordable-care-act-enrollment/.
- [95] Pollitz K. How the American Rescue Plan will improve affordability of private health coverage. Kaiser Family Foundation; 2021. Available at: https://www.kff.org/health-reform/issue-brief/how-the-american-rescueplan-will-improve-affordability-of-private-health-coverage/.
- [96] Yost TS. Biden administration proposed rule would reverse Trump rules on ACA marketplaces, health insurance markets. Commonwealth Fund; 2021. Available at: https://www.commonwealthfund.org/blog/2021/ biden-administration-proposed-rule-would-reverse-trump-rules-acamarketplaces-health.
- [97] Keith K. HHS will enforce Section 1557 to protect LGBTQ people from discrimination. Health Affairs Blog 2021. Available at: https://www. healthaffairs.org/do/10.1377/hblog20210511.619811/full/.
- [98] Jost TS. The Supreme Court throws out the ACA lawsuit, not the ACA. Commonwealth Fund; 2021. Available at: https://www.commonwealthfund.org/blog/2021/supreme-court-throws-out-aca-lawsuit-not-aca-
- [99] Bagley N. California v. Texas ending the campaign to undo the ACA in the courts. N Engl J Med 2021;385:673–5.
- [100] Ranji U, Sobel L, Salganicoff A, Cubanski J. Loss of the ACA could greatly erode health coverage and benefits for women. 2020. Available at: https://www.kff.org/womens-health-policy/issue-brief/loss-of-the-acacould-greatly-erode-health-coverage-and-benefits-for-women/.
- [101] Shah A, Gunja MZ, Schneider EC, et al. Millions of young adults with COVID infections could be denied health coverage if the Affordable Care Act is overturned. Commonwealth Fund; 2020. Available at: https://www. commonwealthfund.org/blog/2020/millions-young-adults-covid-infect ions-could-be-denied-health-coverage-if-affordable-care.
- [102] Blumberg LJ, Simpson M, Buettgens M, et al. The potential effect of a Supreme Court decision to overturn the Affordable care Act: Updated estimates. Urban Institute; 2020. Available at: https://www.urban.org/ sites/default/files/publication/103072/the-potential-effects-of-a-supremecourt-decision-to-overturn-the-affordable-care-act-updated-estimates_ 2.pdf.
- [103] English A, Park MJ. The Supreme Court ACA decision: What Happens now for adolescents and young adults. Chapel Hill, NC: Center for Adolescent Health & the Law; and San Francisco, CA: National Adolescent and Young Adult Health Information Center; 2012.
- [104] Guth M, Garfield R, Rudowitz R. The effects of Medicaid expansion under the ACA: Studies from January 2014 to January 2020. Kaiser Family Foundation; 2020. Available at: https://www.kff.org/medicaid/report/theeffects-of-medicaid-expansion-under-the-aca-updated-findings-from-aliterature-review/.
- [105] Cha P, Brindis CD. Early Affordable care Act Medicaid: Coverage effects for low- and moderate-income young adults. J Adolesc Health 2020;67: 425—31.
- [106] Kaiser Family Foundation. Status of state Medicaid expansion decisions: Interactive Map. 2021. Available at: https://www.kff.org/medicaid/issue-brief/status-of-state-medicaid-expansion-decisions-interactive-map/.
- [107] Gangopadhyaya A, Johnston EM. Impacts of the ACA's Medicaid expansion on health insurance coverage and health care access among young adults. Washington, DC: Urban Institute; 2021. Available at: https://www.urban. org/sites/default/files/publication/103673/impacts-of-the-acas-medicaidexpansion-on-health-insurance-coverage-and-health-care-access-among-young-adults_0.pdf.
- [108] Buettgens M. Medicaid expansion would have a larger impact than ever during the COVID-19 pandemic. Urban Institute; 2021. Available at: https://www.urban.org/research/publication/medicaid-expansion-wouldhave-larger-impact-ever-during-covid-19-pandemic.

- [109] Hassted K. Ensuring adolescents' ability to obtain confidential family planning services in Title X. Guttmacher Policy Rev 2018;21:48–54.
- [110] English A and National Family Planning & Reproductive Health Association. Adolescent confidentiality protections in Title X. 2014. Available at: https://www.nationalfamilyplanning.org/document.doc?id=1559.
- [111] Office of Population Affairs, Department of Health & Human Services. Title X family planning annual report: 2018 national summary, Exhibit 4. 2019. Available at: https://www.hhs.gov/opa/sites/default/files/title-x-fpar-2018-national-summary.pdf.
- [112] Frost JJ, Zolna MR, Frohwirth L. Contraceptive needs and services, 2010. Guttmacher Institute; 2013. Available at: http://www.guttmacher.org/pubs/win/contraceptive-needs-2010.pdf.
- [113] Sonfield A. Seeing the whole pattern: Coordinated federal attacks on birth control coverage and access, Guttmacher Institute; 2020. Available at: https://www.guttmacher.org/article/2020/06/seeing-whole-patterncoordinated-federal-attacks-birth-control-coverage-and-access.
- [114] Office of Assistant Secretary for Health; Department of Health and Human Services. Compliance with Statutory program requirements. 84 Fed. Reg. 7714. 2019. Available at: https://www.govinfo.gov/content/pkg/FR-2019-03-04/pdf/2019-03461.pdf.
- [115] National Family Planning and Reproductive Health Association. Analysis of 2019 final rule on Title X family planning program. 2019. Available at: https://www.nationalfamilyplanning.org/file/2019-Title-X-Final-Rule— Detailed-Analysis—3.4.2019-FINAL.pdf.
- [116] Dawson R. Trump administration's domestic gag rule has slashed the Title X network's capacity by half. 2020. Available at: https://www.guttm acher.org/article/2020/02/trump-administrations-domestic-gag-rule-hasslashed-title-x-networks-capacity-half.
- [117] American Academy of Pediatrics, Society for Adolescent Health and Medicine. Letter to Alex Azar, Secretary, U.S. Department of Health and Human Services, Re: HHS-OS-2018-0008; compliance with Statutory program Integrity requirements. 2018.
- [118] U.S. Department of Health and Human Services. Ensuring access to equitable, Affordable, Client-Centered, quality family planning services, 86 Fed. Reg. 56144, 2021. Available at: https://www.govinfo.gov/content/ pkg/FR-2021-10-07/pdf/2021-21542.pdf.
- [119] Frederiksen B, Salganicoff A, Sobel L, Gomez I. Key elements of the Biden administration's proposed Title X regulation. Kaiser Family Foundation; 2021. Available at: https://www.kff.org/womens-health-policy/issue-brief/ key-elements-of-the-biden-administrations-proposed-title-x-regulation/.
- [120] Joint statement on supreme court's dismissal of Title X cases. 2021. Available at: https://www.ama-assn.org/press-center/ama-statements/joint-statement-supreme-court-s-dismissal-title-x-cases.
- [121] Frost JJ, Zolna MR, Frohwirth LF, et al. Publicly supported family planning services in the United States: Likely need, availability and impact, 2016. Corrected November 13, 2019. Available at: https://www.guttmacher.org/ sites/default/files/report_pdf/publicly-supported-fp-services-us-2016. ndf
- [122] Nash E. For the first time ever, U.S. states enacted more than 100 abortion restrictions in a single year. Guttmacher Institute; 2021. Available at: https://www.guttmacher.org/article/2021/10/first-time-ever-us-states-enacted-more-100-abortion-restrictions-single-year.
- [123] Guttmacher Institute. Parental involvement in minors' abortions. 2021. Available at: https://www.guttmacher.org/state-policy/explore/parental-involvement-minors-abortions#.
- [124] Center for Reproductive Rights. U.S. Supreme Court denies emergency appeal to block Texas abortion ban. 2021. Available at: https:// reproductiverights.org/u-s-supreme-court-denies-emergency-appeal-toblock-texas-abortion-ban/.
- [125] Center for Reproductive Rights. Mississippi abortion ban case before the U.S. Supreme Court poses a direct challenge to Roe v. Wade. 2021. Available at: https://reproductiverights.org/case-scotus-mississippi-abortion-ban-roe-wade-challenge/.
- [126] English A. Appendix G: 25 years of AYAH confidentiality studies—a bibliography. In: English A, ed. Adolescent & Young Adults Health Care in Minnesota: A Guide to Understanding Consent & Confidentiality Laws. San Francisco, CA: Adolescent & young adult health national resource center; and Chapel Hill, NC: Center for Adolescent Health & the Law; 2019. Available at: http://nahic.ucsf.edu/resource_center/confidentiality-guides/.
- [127] Morreale MC, Stinnett AJ, Dowling EC. Policy compendium on confidential health services for adolescents, 2nd edition. Center for Adolescent Health and the Law; 2005. Available at: https://www.cahl.org/policycompendium-2nd-2005/.

- [128] English A, Ford CA. The HIPAA privacy rule and adolescents: Legal questions and clinical challenges. Perspect Sex Reprod Health 2004;36:80–6.
- [129] Office for Civil Rights. Proposed modifications to the HIPAA privacy rule to support, and Remove Barriers to, coordinated care and individual engagement. 86 Fed. Reg. 6446. 2021. Available at: https://www.govinfo. gov/content/pkg/FR-2021-01-21/pdf/2020-27157.pdf.
- [130] 21st Century Cures Act: Interoperability, information blocking, and the ONC health IT Certification program. 85 Fed. Reg. 25642, 2020. Available at: https://www.govinfo.gov/content/pkg/FR-2020-05-01/pdf/2020-07419.pdf.
- [131] American Medical Association. What is information blocking?. Available at: https://www.ama-assn.org/system/files/2020-11/information-blocking-part-1.pdf.
- [132] Carlson J, Goldstein R, Hoover K, Tyson N. NASPAG/SAHM Statement: The 21st Century Cures Act and adolescent confidentiality. J Pediatr Adolesc Gynecol 2021;34:3—5.
- [133] Pageler NM, Webber EC, Lund DP. Implications of the 21st Century Cures Act in pediatrics. Pediatrics 2021;147:e2020034199.
- [134] Bourgeois FC, DesRoches CM, Bell SK. Ethical challenges Raised by OpenNotes for pediatric and adolescent patients. Pediatrics 2018;141: e2017274s.
- [135] Schapiro NA, Mihaly LK. The 21st Century Cures Act and challenges to adolescent confidentiality. J Pediatr Health Care 2021;35:439–42.
- [136] Office of the National Coordinator for Health Information Technology. Cures Act final rule: Information blocking exceptions. 2020. Available at: https://www.healthit.gov/sites/default/files/cures/2020-03/Information BlockingExceptions.pdf.
- [137] Ford CA, Bourgeois FC, Buckelew SM, et al. 21st Century Cures Act final rule and adolescent healthcare: Leadership education in adolescent health (LEAH) program experiences. J Adolesc Health 2021;69:873—7.
- [138] American Academy of Pediatrics. What pediatricians need to know about the 21st Century Cures Act Interoperability final rule. Available at: http://www.aap.org/en/practice-management/health-information-technology/what-pediatricians-need-to-know-about-the-21st-century-cures-act-interoperability-final-rule/.
- [139] American Academy of Pediatrics. Pediatric information blocking use cases. Available at: http://www.aap.org/en/practice-management/health-information-technology/pediatric-information-blocking-use-cases/.
- [140] Wood SM, White K, Peebles R, et al. Outcomes of a rapid adolescent telehealth scale-up during the COVID-19 pandemic. J Adolesc Health 2020; 67:172—8.
- [141] Barney A, Buckelew S, Mesheriakova V, Raymond-Flesch M. The COVID-19 pandemic and rapid implementation of adolescent and young adult telemedicine: Challenges and opportunities for innovation. J Adolesc Health 2020;67:164–71.
- [142] North S. Telemedicine in the time of COVID and beyond. J Adolesc Health 2020;67:145–6.
- [143] Center for Connected Health Policy. Telehealth in the time of COVID-19: How the pandemic has impacted health policy. Available at: https://www.cchpca.org/covid-19-actions/.
- [144] Center for Connected Health Policy. State telehealth laws and reimbursement policies: COVID-19 telehealth coverage policies. 2021. Available at: https://www.cchpca.org/2021/08/Spring2021_COVIDPolicies.pdf.
- [145] Evans YN, Golub S, Sequeira GM, et al. Using telemedicine to reach adolescents during the COVID-19 pandemic. J Adolesc Health 2020;67:469–71.
- [146] Abshire DA, Graves JM, Amiri S, Mackelprang JL. Scaling-up telehealth during the COVID-19 pandemic: Missed opportunities to leverage spatial data to ascertain the rural reach of services. J Adolesc Health 2010;67:1971.
- [147] Carlson JL, Goldstein R. Using the electronic health record to conduct adolescent telehealth visits in the time of COVID-19. J Adolesc Health 2020;67:157–8.
- [148] Institute of Medicine (IOM) and National Research Council. Investing in the health and well-being of young adults. Washington, DC: The National Academies Press; 2015.
- [149] National Academies of Sciences, Engineering, and Medicine. The Promise of adolescence: Realizing opportunity for all youth. Washington, DC: The National Academies Press; 2019.
- [150] Patton GC, Sawyer S, Santelli J, et al. Our future: A Lancet commission on adolescent health and well-being. Lancet Commissions 2016;387:2423-78.
- [151] Brindis CD, Moore K. Improving adolescent health policy: Incorporating a framework for assessing state-level policies. Annu Rev Public Health 2014;35:343-61.