Preamble: The relevance of social and structural factors (see Appendix 1) to health, quality of life, and life expectancy has been amply documented and extends to mental health. Pertinent variables include the following (Compton & Shim, 2015):

- Discrimination, racism, and social exclusion
- Adverse early life experiences
- Poor education
- Unemployment, underemployment, and job insecurity
- Income inequality
- Poverty
- Neighborhood deprivation
- Food insecurity
- Poor housing quality and housing instability
- Poor access to mental health care

All of these variables impede access to care, which is critical to individual health, and the attainment of social equity. These are essential to the pursuit of happiness, described in this country’s founding document as an “inalienable right.” It is from this that our profession derives its duty to address the social determinants of health.

A. Overview: Why Social Determinants of Health (SDOH) Matter in Mental Health

Social determinants of health describe “the causes of the causes” of poor health: the conditions in which individuals are “born, grow, live, work, and age” that contribute to the development of both physical and psychiatric pathology over the course of one’s life (Sederer, 2016). The World Health Organization defines mental health as “a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community” (World Health Organization, 2014). Studies of the social determinants of health describe how structural and social variables contribute to the capacity of individuals to attain mental health (Hansen et al., 2018).
The role of psychosocial stressors across the life cycle as both risk factors and modifiers of the course of mental illness has been well described. Among them:

- Adverse childhood experiences are strongly linked with adolescent depression (Felitti et al., 1998) and a variety of negative physical and mental health outcomes much later in life (Catalano et al., 2011). Such experiences may include physical, sexual, and emotional abuse; violence, substance use, and mental illness in the household; parental separation; incarceration of a member of the household; and emotional and/or physical neglect. A number of these experiences are also associated with an increased risk of asocial behavior, poor educational performance, unemployment, and mental illness (Allen et al., 2014).

- In middle life, long-term unemployment is associated with depression and anxiety (Catalano et al., 2011).

- In later life, lower educational attainment, greater social isolation, and poor physical health are associated with depression (Hansen et al., 2018).

The long-term effects of adverse psychosocial events have become better understood in recent decades. Socioeconomic status is linked to physical and mental health and to the costs associated with mental health-related disability (Whiteford et al., 2013), lost economic productivity (Kessler et al., 2008), and psychiatric care (Insel, 2008). This linkage highlights the role of the social determinants of mental health as a vector for reducing the burden of psychiatric disease.

Importantly, the effects of some social determinants of mental health have been shown to be modifiable through both targeted interventions and natural experiments. These findings include the following:

- **Investment in newborns results in better growth and survival.** Improved outcomes with respect to infant growth and development and reduction in neonatal mortality were seen following interventions to improve maternal mood and strengthen the mother-child attachment (Felitti et al., 1998).

- **Neighborhoods affect mental health.** An intervention by the Department of Housing and Urban Development in which recipients of housing vouchers were moved from public housing to low-poverty neighborhoods resulted in improvement in self-reported psychological distress, depressive symptoms, and subjective sense of calm (U.S. Department of Housing and Urban Development, 2003).

- **Improvements in economic status improve mental health.** A dose-dependent reduction in the prevalence of mental and substance use disorders in adults in American Indian nations was found following the distribution of gambling profits to tribal communities with gaming operations (Costello et al., 2003; 2019).

The implementation of evidence-based interventions to reduce the impact of harmful psychosocial factors at a population level has the potential to alter the course of mental illness as a form of primary prevention. Further, psychosocial stressors are a known risk factor for treatment resistance and relapse in many psychiatric disorders (Herzig et al., 2012; Brown et al., 1990; Nel et al., 2018; Hogarty & Ulrich, 1998); therefore, interventions addressing the social and structural determinants of mental health also have a role in both secondary and tertiary prevention. For this reason, it is not sufficient to help a patient cope with homelessness, for example, but psychiatrists must also mobilize the care team to assist the patient in finding housing.

**B. The Role of Psychiatry in Addressing Health Equity**
Leading an Interprofessional Care Team

Psychiatrists often function as leaders of interprofessional mental health care teams because of the extent of their education and training, professional licensing statutes, and the by-laws of professional staff organizations at health care delivery sites. In this role, psychiatrists have an important opportunity to advocate for improving the delivery of care. Such advocacy can be extended to helping the care delivery organization address identified SDOH. In Arizona, for example, the psychiatrist-in-chief at a community hospital was able to work with the hospital’s chief operating officer on a joint venture with a community mental health agency to invest in a temporary residential housing facility for pregnant women with substance use disorder. Under the arrangement, the women receive on-site addiction treatment and prenatal care, then deliver at the hospital and move back into the residential setting for continued addiction treatment. Neonatal and postpartum care is provided at the hospital’s birthing center (Mace, 2018). While utilization statistics met or exceeded expectations, the project is too new for generation of outcome data.

Mobilizing the Power of Team-Based Care

The composition of mental health care teams varies. Commonly they include a case manager, a psychiatrist, a nurse, and, increasingly, a peer support specialist. The case manager and the peer support specialist are excellent sources for information about SDOH regarding a particular case. The psychiatrist, in turn, is in the best position to integrate the data into diagnostic formulations and the treatment plan, creating a roadmap for what has been called “systems-based practice” (LeMelle et al., 2013).

Joining Forces With Primary Care: The Integrated and Collaborative Care Delivery Models

The care of individuals with mental illness is incomplete if it is isolated from their general medical care. This insight has spurred the implementation of new care delivery models that, most frequently, add a “behavioral health provider” to a primary care medical home or embed primary care clinicians in a psychiatric clinic. In the collaborative care model, care coordinators are placed as psychiatry extenders in a key position, while integrated care models rely on shared care between psychiatrists and primary care physicians. There is an enormous body of literature on the advantages of such models (Raney & Lasky, 2017; Katon et al., 2006). Outcome studies have concluded that cost savings can reach almost $3,500 per patient over four years of care in a primary care clinic. The cost savings are primarily due to decreased utilization of costly health care services like emergency department and inpatient care. This matters for the current context, because the SDOH that impact mental health are widely relevant to other medical conditions as well. The growth in prevalence of chronic health conditions and the increasing share of the nation’s health care spending devoted to their treatment make primary care physicians powerful allies in psychiatrists’ advocacy of public investment to improve conditions.

Participating in Multi-Sector Models of Care

A powerful approach to addressing public health problems involves collaboration among multiple systems and levels of care across a wide geographic area. A successful example of this approach is Community Partners in Care (CPC), which involved 95 programs in five sectors to address depression care in Los Angeles. CPC involved enlisting, training, partnering, and implementing mental health care in health care and non-health care organizations. This is an evidence-based way to treat patients with mental illness and address social determinants of health and create community efficacy around health

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equity. Other examples include Communities That Care (Hawkins et al., 1992), mental health-criminal justice partnerships (pre-booking diversion, mental health courts), and school-based mental health services and partnerships.

**Investing in Pertinent Education and Training**

Organized psychiatry, including subspecialty groups, need to invest in education and training about SDOH. According to a the *Position Statement on Mental Health Equity and the Social and Structural Determinants of Mental Health* (2018), the American Psychiatric Association “supports medical and public education on the structural and social determinants of mental health, mental health equity, and related evidence-based interventions;[and] urges medical school and graduate medical education accrediting and professional bodies to emphasize educational competencies in structural and social determinants of mental health and mental health equity.”

**C. The Challenge of Implementation: Fiscal and Operational Aspects of Addressing SDOH**

The Centers for Medicare and Medicaid Services (CMS) is the largest funder of health care services in the country. Over the past 10 years, CMS has generously funded various new models of care delivery and has supported rigorous outcome research. These efforts have resulted in the experimentation with Accountable Care Organizations (ACO) and the creation of new billing codes that allow for the reimbursement of collaborative care. For these reasons, it is likely that CMS will have a major role in addressing SDOH.

There are several important issues with the current system of government funding in the health care system. First, targeted awards, such as grants, are tied to the health care system, which limits the flexibility of investing such funds in social determinants of health that may involve other systems like education or criminal justice (Castillo et al., 2018). This inhibits psychosocial integration. Second, government funds are limited, so the officers in charge of distribution are often reluctant to invest in novel health care approaches. Finally, government may not have the infrastructure to invest in programs addressing SDOH and the tools for implementation and metrics to measure success may be lacking.

Here are some of the relevant federal and state initiatives, the evidence (where it exists) of their effectiveness, and the problems and challenges associated with these approaches:

**1. Alternative Payment Models (APMs) under Medicare and Medicaid Waivers**

APMs under Medicare and Medicaid waivers represent government-funded mechanisms by which SDOH may be addressed.

Alternative Payment Models are one track of the Quality Payment Program (QPP) created under the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA). (The other track is the Merit-based Incentive Payment System, orMIPS.) One goal of the MACRA track is to encourage the development of Physician-Focused Payment Models (PFPM) focused on improving health care cost and quality. APMs typically allow for the development of novel payment mechanisms that offer financial incentives for keeping patients healthy and reducing patient need for costly interventions including hospital and emergency department stays. A priority of physician advocacy organizations regarding APMs is to ensure that physicians are not taking on financial risk for factors that they do not have the resources or ability to control. A benefit of APMs is that they offer an opportunity for flexibility in Medicare reimbursement for support services to address SDOH, which are not typically covered or otherwise funded.

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Unfortunately, there is a risk of adverse selection: APMs can disincentivize physicians from caring for vulnerable populations and can limit access to care. Current risk-adjustment methods are not accurate enough to distinguish between high-quality care provided to patients who are at higher risk for illness versus inadequate or insufficient care. Moving forward, it will be important for health care providers to encourage APMs that reimburse for the assessment of—and intervention for—modifiable SDOH. More data are also needed regarding the effect of SDOH on health outcomes and very importantly, how to risk-adjust for SDOH in APMs as to not reduce patients’ access to care.

Accountable Care Organizations (ACO), which was authorized by the Affordable Care Act. According to CMS, an ACO is "an organization of health care practitioners that agrees to be accountable for the quality, cost, and overall care of Medicare beneficiaries who are enrolled in the traditional fee-for-service program who are assigned to it." The emphasis is on outcomes as a proxy for quality and on coordination between physicians, allied health professionals, and hospitals and clinics. Demonstration projects have shown benefits although not of the magnitude hoped for (McWilliams et al., 2016).

2. Medicaid Programs and Waivers

CMS allows states to apply for waivers of certain Medicaid requirements to better meet states’ needs. They may address such provisions as the benefits that are provided, how patients qualify for benefits, the freedom of choice for patients to select providers, and how providers are paid. These waivers are named after the Social Security Act (SSA) section that grants the waiver—Section 1115, 1915 (b), or 1915 (c) waivers.

The flexibility and creativity promoted under the waivers may allow for Medicaid reimbursement to address SDOH in ways that were previously not covered. As with APMs, a goal of the waivers is to encourage new approaches to health care delivery. Each waiver has specific requirements aimed at efficiency and cost-effectiveness and in many cases are budget-neutral through the promotion of cost savings and cost sharing.

The 1115 waivers are the broadest type of waiver and cover experimental and pilot programs. They are typically for large statewide programs, often for specialized patient populations. The 1915 (b) waivers are used to require patients to get services from a specific health care plan or case manager and restrict the ability of patients to choose their provider, other than in emergency situations. These are used in situations such as the development and enrollment of patients in Federally Qualified Health Centers (FQHC). The 1915 (c) waivers allow states to offer home and community-based services to patients who may otherwise require institutionalization. Separate from waivers, 1932 amendments allow states to enroll individuals receiving Medicaid in managed care delivery systems.

Outside of the SSA, 1332 waivers were created as part of the Affordable Care Act (ACA) to allow states to waive some of the private insurance and coverage provisions of the ACA. They were designed to offer states a mechanism for cost sharing to address the increasing cost of insurance under the ACA. They are less typically thought of as mechanisms to address SDOH, but since SDOH likely contribute to high-risk insurance pools, there is an opportunity here. These programs require that state-based programs offer equivalent or greater scope, affordability, and comprehensiveness of coverage. They have no impact on the federal deficit or federal administrative functions.

While Medicaid waiver programs may offer opportunities to fund unique delivery models and address SDOH, these programs may have the unintended consequence of limiting access to care. There is also the concern that these programs may, in some cases, be specifically designed to limit access to care, make care conditional on standards outside of the objective of Medicaid, and/or shift the financial risk

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4 [https://www.medicare.gov/manage-your-health/coordinating-your-care/accountable-care-organizations]
Waiver programs should accomplish the following:

- Ensure that affordability protections are maintained and that proposed changes do not significantly increase premiums, deductibles, copayments, and other out-of-pocket costs or establish new requirements for eligibility.
- Maintain or strengthen benefits so that the full range of currently covered services is maintained, including essential benefits, maternity care, substance use disorder treatment, and immunizations and services for children under the Early Periodic Screening, Diagnosis, and Treatment Program.
- Be free of barriers to eligibility and coverage such as job requirements and mandatory drug testing.
- Maintain or strengthen access to providers of all women’s health services.
- Preserve existing funding mechanisms and promote a variety of models including patient-centered medical homes, patient-centered medical homes for women, and integration of psychiatric and primary care.
- Be transparent and involve multiple stakeholders to evaluate the impact on enrollees, families, and providers.

3. **Targeted Tax Incentives**

Tax exemptions, colloquially known as “tax breaks,” are one method to incentivize behaviors that promote health. Through tax breaks, governments can subsidize the costs of interventions that improve health. Therefore, tax breaks can potentially create an appealing market for taxpayers (that is, individuals, corporations, or other tax-owing entities) by decreasing the risks or costs of engaging in a specific behavior. Because taxes are written into law and occur on a recurrent basis, they have the potential to be sustainable.

A tax is defined as a legally required payment from taxpayers collected by the government. Taxes are not returned to the taxpayer, but rather used for communal projects such as infrastructure or social security. In other words, taxes are one mechanism used to fund government expenditures.

Tax liability is the total amount a taxpayer owes. Tax exemptions are subsidies that decrease tax liability. A tax exclusion is nontaxed income. For example, income put in employer-based retirement plans is excluded from being taxed. A tax deduction is an expense that lowers tax liability. For example, homeowners do not pay taxes on mortgage interest on the first $750,000-1,000,000 of mortgage debt. This encourages home ownership. While tax exclusions are not 100% reimbursed, a tax credit is a dollar-for-dollar offset in tax liability. Therefore, a tax credit usually provides a larger incentive for taxpayers. The Child Tax Credit supports families with children ($1,400 per child) or other dependents ($500). This tax credit encourages families to have children.

There is limited evidence of the effectiveness of incentives through tax policy with regard to mental health and developmental outcomes. Colorado provides a tax credit for early childhood educators to encourage individuals to provide services during a formative period in child development. The Earned Income Tax Credit (EITC) is a federal tax credit that provides a lump-sum payment to low- to moderate-income working families. Studies show that the EITC is associated with decreased depressive symptoms and improves general mental health in married women (Boyd-Swan et al., 2016, Evans & Garthwaite, 2014).
The advantages of targeted tax incentives include that they may create new markets to support evidence-based interventions and quickly reap returns on investment. Disadvantages are a lack of flexibility (when federal or state money is tied to a specific determinant), a lag in time between implementation and outcome, and possible unintended negative consequences associated with incentives.

4. Social Impact Bonds

A social impact bond is a public-private partnership in which private investors provide the capital to examine the effects of an intervention on a health care need. In this arrangement, the government contracts with an intermediary (usually a nonprofit organization) to address a health care need. The government and nonprofit work to define the interventions and metrics of success. The nonprofit then issues a social impact bond that private individuals and organizations invest money to fund. The contract is performance based: If the no-profit achieves its predetermined measures of success (for example, fewer ED visits for homeless people with serious mental illness), then the government will pay for the costs of the program and a return (usually with interest) to the private investors. Social impact bonds shift risk away from federal, state, and local governments to the private sector because investors are repaid only if the project meets metrics indicating success and an independent evaluation shows that the intervention led to improved outcomes.

Government agencies, participating nonprofits or community agencies, and private sector investors have distinct roles in social impact bonds:

- Government agencies determine the health care issue on which to focus and pay (or does not pay) based on intervention outcomes.
- An intermediary is an organization that contracts with the government and brings together stakeholders. The intermediary raises capital to provide and evaluate an intervention of interest. The intermediary may or may not be the entity delivering the intervention.
- Social impact investors, philanthropists, or philanthropic organizations provide capital to finance the intervention of interest.

As of 2018, more than 120 social impact bonds had been implemented worldwide (Boggild-Jones and Gustafsson-Wright, 2019). There are ongoing demonstrations on the use of the nurse-family partnership and decreasing recidivism and incarceration in at-risk adolescents through juvenile justice diversion programs (Trupin et al., 2004).

The advantages of social impact bonds include their potential for bringing new money into the health care system and a higher degree of accountability (since government agencies pay only if the program works and investors scrutinize interventions to ensure they are worthy of investment. Disadvantages are that the risks associated with the intervention may be unattractive to private investors and the lag in time between implementation and outcome; additionally, sustaining investment in successful interventions can be challenging.

D. Interventions That Psychiatry, Especially Organized Psychiatry, Can Make to Lessen the Impact of SDOH

Much of this resource paper addresses conceptual issues connecting social factors to health. It further discusses interventions aimed at modifying those factors so as to improve population health outcomes. The general discussion included specific examples where appropriate. We close with a few suggestions for practical steps that APA members can take to systemically address SDOH. Each of these suggestions includes multiple opportunities whose precise nature is shaped by local, regional, or statewide circumstances. These include working with local health departments, not-for-profits aimed at finding
housing for individuals with mental and/or substance use disorders, and working with individuals transitioning out of the criminal justice system and into the community.

Appendix 1: Glossary

Social determinants: Factors in our social environment that impact human beings, such as poverty, food insecurity, homelessness, or exposure to environmental hazards.

Structural determinants: Factors in our society’s system meant to modify the impact of social determinants, such as unemployment insurance, Supplemental Nutrition Assistance Program, and Section 8 housing.

Acronyms:

ACA: Affordable Care Act (“Obamacare“)
ACO: Accountable Care Organization
APM: Alternative Payment Models (APMs) under Medicare and Medicaid Waivers
CMMI: Center for Medicare and Medicaid Innovation, also known as the “Innovation Center”
CMS: Center for Medicare and Medicaid Services
CPC: Community Partners in Care
EITC: Earned Income Tax Credit
FQHC: Federally Qualified Health Centers
MACRA: Medicare Access and CHIP Reauthorization Act of 2015
MIPS: Merit-based Incentive Payment System
QPP: Quality Payment Program
PFPM: Physician-Focused Payment Models
SSA: Social Security Act
Appendix 2

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