Realizing Health and Well-being Outcomes for People with Osteoarthritis Beyond Health Service Delivery

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KEYWORDS

• Osteoarthritis • Chronic disease • Social determinants • Healthy built environment • Healthy aging

KEY POINTS

- Social determinants of health cover a wide spectrum of contextual factors beyond direct health service delivery, including lifestyle, personal circumstances, psychosocial issues, and the built environment. These "extra-healthcare" factors influence health and well-being outcomes.
- Social determinants of health should be considered and incorporated into care planning and delivery to better support people with OA throughout their life-course.
- Understanding how social determinants of health impact health care is essential for all health care professionals delivering care to people with osteoarthritis.

INTRODUCTION AND BACKGROUND

Osteoarthritis (OA) is the leading cause of disability in people over 45 years and a recognized threat to healthy aging.[1] OA is associated with negative outcomes for well-being, health care utilization, and rising personal and societal costs.[2] OA can

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have negative impacts on mobility, dexterity, physical function, social participation, mood, sleep, and quality of life.[3,4] Many people experience OA in multiple joints,[5] and live with multimorbidities, commonly hypertension, cardiovascular disease, diabetes, low back pain, and psychological distress.[6] People with OA report lower physical activity levels[7] and often struggle with their body weight.[8] They may report difficulty in undertaking their usual daily activities, including leaving the house for recreation or accessing care,[9] making social isolation and loneliness common.[10] According to international clinical practice guidelines, first-line treatments for OA include increasing physical activity, structured exercise and weight management, coupled with education, support for self-management, and appropriate use of medications[11] (**Table 1**). Yet, many people with OA do not receive first-line care,[12] and racial and socioeconomic disparities around OA care exist.[13]

Reducing the prevalence of OA and improving the well-being of people with the condition requires effective action beyond the traditional health service delivery paradigm.[14] Integration of health services with the different contexts and settings in which people work, live, play, and socialize,[15] also known as the social determinants of health (SDH), has long been accepted as essential to ensuring good health outcomes.[15] SDH are especially important for people with chronic, noncommunicable conditions such as OA, diabetes, heart disease, where multiple interacting factors influence the development, management, and progression across the life course.[16] Addressing the negative influences of SDH are essential to ensuring equity and equality in health service delivery[17] (**Box 1**). However, SDH concepts are poorly integrated into current OA health care,[16] where the focus remains on enabling access to disease therapies, often delivered with a biomedical paradigm in siloed health service delivery models. This article explores how SDH influence outcomes in people with OA, how factors may intersect at different levels of care (eg, individual, clinical practice, service delivery, and health systems levels), and potential opportunities to incorporate SDH into OA care (eg, **Fig. 1**). We will specifically consider the use of SDH to:

- identify people at high risk of developing OA to ensure they receive appropriate care,
- identify people at risk of having poor health and well-being outcomes related to OA to ensure they receive additional support, and

Table 1
Overview of key OA considerations for assessment, diagnosis, and management

Assessment and Diagnosis Considerations	Treatment and Management Strategies
Holistic assessment of: • Pain, functional limitations • Sleep and fatigue • Impact of multimorbidities • Social factors and supports (eg, family, culture, community) • Health beliefs (eg, negative beliefs, poor understanding of lifestyle interventions) • Psychological factors (eg, depression/anxiety, fear of movement) • Support systems (eg, social, health) • Living location • Financial status	• Education and effective self-management of osteoarthritis[a] • Weight management and weight loss[a] • Exercise and physical activity[a] • Regular review of medications[a] • Mood and sleep management • Use of topical medications, heat/cold • Assistive devices and walking aids • Prudent use of pain-relieving medications

[a] Recommended first-line treatments.

Box 1
Health equity versus health equality[17]

Health inequities and health equalities are shown to have significant impacts on health, and are linked to social determinants such as gender, race/ethnicity, education, income, occupation, and geography (rural, urban). These concepts have been defined as follows:

Health inequality: Any measurable differences in health aspects across individuals or according to socially relevant groupings, without any moral judgment on whether the observed differences are fair or just.

Health inequity: A specific type of health inequality that implies the differences in health is unjust or unfair.

- develop strategies to optimize the quality of life for people with OA, including participation in work and community.

DISCUSSION

What are SDH?

There is growing evidence that health outcomes (eg, mortality/life expectancy, quality of life, health status, functional limitations) are explained more by the context of people's lives, and less by the quality and availability of medical care.[18] Across all health conditions, the World Health Organization (WHO) estimates that SDH account 30% to 55% of health outcomes,[19] primarily from nonhealth sectors, such as work, transportation, education, and the built environment. In demographically adjusted models using data from the United States in 2015, health variance in health outcomes was explained by socioeconomic factors (45%), health behaviors (34%), clinical care (16%), and the physical environment (3%).[20] SDH can be considered as contexts,[21] or in terms of the settings and places that people use in daily life,[22] such as home, educational, environmental, geographic, organizational, or virtual settings (**Table 2**).

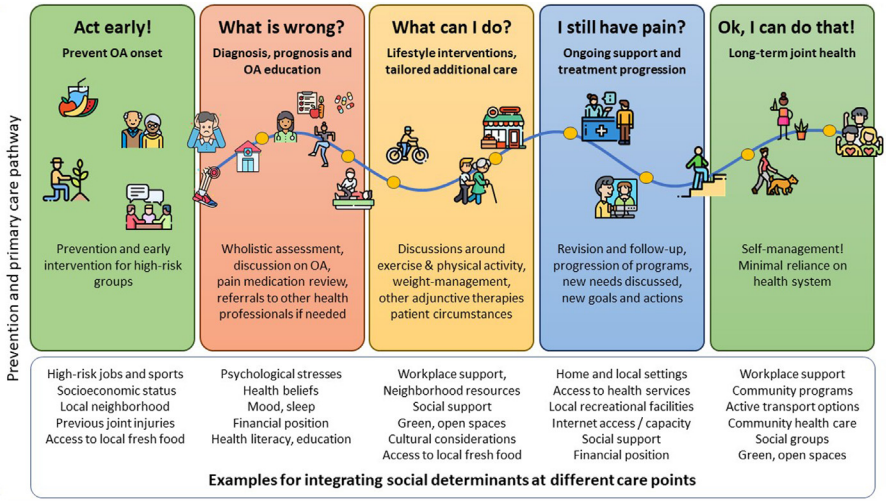

Fig. 1. Examples of SDH considerations in a primary care OA pathway. A broad range of interventions and treatments are recommended in a typical primary care OA pathway. There are many overlapping stages of care where SDH should be considered and integrated into care to ensure optional health outcomes are achieved.

Table 2
Examples of social determinants of health, context, and settings

Social Determinant[14]	Contextual Considerations Relevant to the Social Determinant[14]	Examples of Settings and Places[15]
Structural (individual) and socioeconomic position	Income, education, occupation, social class, gender, race/ethnicity, health literacy	Workplaces, home, health care, educational
Material circumstances	Living and working environment, food availability	Workplaces, neighborhoods,
Behavioral and biological contexts	Lifestyle factors (eg, diet, exercise)	Green spaces, sports facilities, neighborhoods, online
Socioenvironmental and psychosocial factors	Psychosocial stressors, lack of social support, stressful living conditions, coping styles	Home, workplaces, online/virtual settings
Social cohesion	Social relationships, social support	Faith and religious settings, community facilities, sports organizations
Socioeconomic and political contexts	Public, social, and economic policies; governance; cultural and societal values; epidemiologic conditions	Healthy cities, health services, community-based organizations

Relevance of SDH in OA Care

The biomedical considerations for OA care are well documented in international clinical guidelines and the individual psychosocial considerations (eg, social networks, mood) are becoming more widely recognized as necessary components of assessment and care (eg, see the American College of Rheumatology OA Clinical Guidelines[23]). Yet, within this biopsychosocial model, broader contexts relevant to SDHs are rarely addressed in guidelines and models of care. This may be partly due to a lack of high-quality OA clinical trials reporting SDH,[16,24] a poor societal understanding of the interdependency between SDH and health outcomes,[25] that health care and social care systems are often independent and nonintegrated across jurisdictions, and that measuring short-term outcomes associated with interventions in SDH is difficult.[26,27]

The relevance of SDH to OA care and health outcomes is reflected in evidence and global health reform for healthy aging. For example:

- A recent systemic review[25] examined the perceived needs of people with arthritis outside of health care, and identified 6 areas where SDH impacted life, particularly with regards to function. These included (i) needing assistance with activities of daily living, and lack of independence; (ii) social connectedness and social participation; (iii) financial security and costs of health-seeking; (iv) occupational needs and flexibility, including the desire/need to continue work for financial/social reasons; (v) exercise and leisure, including pain limitations; and (vi) transportation, including the inability to drive and/or take public transport because of restricted mobility.[25]

- The WHO defines healthy aging as the "*process of developing and maintaining the functional ability that enables wellbeing in older age*".[28] Functional ability in older age is dependent on 2 factors: a person's intrinsic capacity (ie, composite physical and mental capacities) and their environment (ie, built environment, social support, services across their home, community and broader society). Health care is typically focused on arresting declines in intrinsic capacity (eg, musculoskeletal function) with less attention directed at environmental factors. The WHO model emphasizes the critical importance of acting on environmental factors to maintain functional ability by compensating for age-related losses in intrinsic capacity.[28] In this context promoting environments that optimize intrinsic capacity and remove barriers to participation become increasingly important, thereby highlighting the relevance of acting on SDH to support healthy aging.

SDH Considerations for OA Clinical Care

The following section will discuss potential SDH contexts and settings that should be considered in the OA clinical pathway (see **Fig. 1**), why they are important from the perspective of someone with OA, and how they could be used in clinical practice.

Individual demographic and socioeconomic factors

Age, sex, body mass index (BMI), and joint injury are important individual-level risk factors for both the development and progression of OA.[29] The prevalence of OA is higher in older populations, particularly women, and is consequently increasing as populations age. In 2019, the age-standardized OA prevalence was 6348 per 100,000 population.[30] Years lived with disability from OA were 18.9 million,[30] with an age-standardized increase of 9.6% since 1990.[31] OA affects all age groups with many individuals in prime working age[32]; incidence peaks at 55 to 64 years.[30,31] Consequently, OA can have a significant effect on work-life and socioeconomic prosperity, including reduced work productivity, increased risk of being jobless or taking early retirement,[33,34] and utilizing life-long rehabilitation services.[35]

A high BMI is a risk factor for OA development[36] and correlates with higher pain levels.[37] Obesity is a major contributor to increasing incidence of, and disability associated with OA. Maintaining a healthy weight can significantly reduce OA-related pain in the lower limb, and weight loss is recommended for people with a BMI $\geq$25 kg/m^2. There are significant overlaps between maintaining a healthy BMI and a range of SDH considerations, both in terms of diagnosis and management of the condition.

The social gradient in health, where people in lower socioeconomic positions experience worse health,[38] is also relevant to OA.[16,39] People with lower education, health literacy, unemployed, no life-partner, low income, and poor mental health are at higher risk for developing OA and multimorbidity[4,40] (**Box 2**). Socioeconomic position has been linked to inequity of health delivery and care disparities.[13] Poor access to rehabilitation, fewer referrals, lower health care utilization, and perceived bias in care (including lower rates of first-line care) have been reported for many communities with a lower socioeconomic status, including low-income and middle-income countries (LMIC).[41,42] For example, Odonkor and colleagues[41] reported black individuals in the United States were less likely to receive evidence-based care than other ethnic groups. Cultural backgrounds have also been reported to impact the uptake of OA care. Qualitative data from people with OA of Asian descent[43] highlighted the importance of family and peer assistance, culturally specific activities (eg, floor culture, such as where activities are undertaken while sitting or kneeling on the floor), a distrust in Western medicine, and the impact of positive coping mechanisms. Taking conscious

Box 2
Prevalence of OA in indigenous populations of high-income countries

Many high-income countries, such as Australia, New Zealand, the United States, and Canada, have vulnerable indigenous populations reporting high prevalence and impact OA, and many of whom live in remote and/or areas with poor health services. Several studies of remote indigenous communities in Australia estimated the prevalence of multijoint osteoarthritis as between 7% and 32%, and at the knee alone in 5% and 18%.[44] A recent systematic review identified the rate ratio of prevalence between Aboriginal and non-Aboriginal people in Australia of 1.2 to 1.5 for OA. Despite the higher rate, Aboriginal people accessed primary care for knee or hip OA at approximately half the rate of non-Aboriginal people, and were less than half as likely to have knee or hip arthroplasty.[45] Similarly, OA was reported in up to 17% of American Indian/Alaska Native women, 22% of Canadian First Nations people, and 6% of New Zealand Maori populations.[44]

action to identify and address these issues early in a care pathway is important to improving care for people at high risk of poor OA outcomes.

Psychosocial, socioenvironmental, and social cohesion considerations

Psychosocial, socioenvironmental, and social cohesion are major considerations for both planning and delivery of OA care. In addition to the functional impact of OA, the psychosocial and emotional impact can be high.[4,9,25] Family, social, and community participation are often negatively impacted, resulting in life adjustments, increased dependence on others, and lowered quality of life.[4,25,40,46] A recent systematic review found psychosocial impacts were a key factor in the lived experiences of people with knee OA. The authors concluded these should be a central consideration when planning and implementing care.[9] Furthermore, poor societal understanding about the impact of OA symptoms, particularly pain, can exacerbate the psychosocial and emotional sequelae.[47] People with OA report experiencing condition-related discrimination, stigmatism, and embarrassment, making them reluctant to participate in some aspects of recommended care (eg, public exercise).[25,48] Poor understanding of OA can also present as ageism, potentially leading to care inequities.[49] Joint pain is commonly ignored or passed off as "normal aging", or care options (eg, exercise) are either not adapted for older age groups or withheld.[50]

Friends, family, and caregivers have also been cited as important for social support, helping people with OA maintain their independence, and providing motivation to continue with meaningful activities[26,51] (**Box 3**). However, they are also commonly identified as sources of false or misleading OA information, and approaches to counter this influence may be needed.[48,52] For example, having family or friends who received opioids was associated with increased risk of opioid use and beliefs that opioids were low-risk.[52] Educating people with OA, their family, friends, and caregivers in first-line OA management has the potential to optimize social interaction and improve quality of life for all involved.[47,53]

Cultural and religious considerations can influence health care in many communities, with increasing calls for services and models of care that can be adapted to different cultural contexts.[43,46] Peer assistance programs, inclusion of cultural or religion-specific activities (eg, floor culture, prayer), or greater inclusion of traditional diets, medicines, and local healers are examples. Assistance with accessing and navigating health care (including health literacy programs), affordability of medications, and greater support for lifestyle interventions have also been suggested.[42,43,54] Codesign and codelivery of OA programs and services with the local community, and adopted at national, organizational, and professional levels are essential.[55]

Box 3
Addressing social isolation and loneliness

Limited social participation, social isolation, and loneliness can be a significant social consequence of having OA, and are linked to worse physical and mental health.[10] The European Project on OSteoArthritis (EPOSA) study[10] found having clinical OA at more than one site, increased the risk of social isolation even after adjusting for depression, cognitive impairment, and walking time. Changing social and familial structures also impact on the functional ability of older people. Isolation and lack of familial and community support may be particularly acute in rural and remote areas where migration of younger people to urban areas for work and other opportunities is increasingly common. Across some European nations, more than 40% of women aged more than 65 years live alone,[56] while dramatic social changes have been observed in the Asia-Pacific region.[57] These changing structures can further contribute to isolation, increase the risk of poverty, and reduce functional ability. Improved identification and use of local social networks and existing relationships is one way to support people at risk of social isolation.[58]

Occupational and work considerations

Occupation and work factors span many SDH domains (see **Table 2**), and should be explored when people present with joint pain. First, there is growing evidence on the role of occupational exposures on the development and progression of OA.[59–62] A recent umbrella review found high occupational physical activity was associated with developing OA, and in men, increased all-cause mortality, depression, anxiety, and poor-quality sleep.[60] Occupations that involve heavy physical workloads, such as heavy lifting, squatting, knee bending, and climbing, increased the risk of developing lower limb OA. High-risk occupations include agricultural and construction workers, tradespeople (eg, carpet layers),[59] and those with traumatic joint injuries at work or through other activities (eg, tendon ruptures, traffic accidents, high-impact sports).[29] Military personnel and firefighters are particularly high-risk groups[63] with knee OA a top cause of medical discharge. Traumatic or high-impact injuries are of particular concern in younger people who have a high probability of developing OA at a young age.[32,64] Identification of people with these high-risk exposures should be a priority to ensure appropriate prevention and early OA management strategies can be implemented.[62]

Workplace accommodations, supported by legislation or other policy processes, are important to enabling productivity at work and return to work after injury.[65] Lack of support and work flexibility from employers and work colleagues have been highlighted as concerns by people with OA in high-income countries.[66] Failure to provide this support may lead to changes in employment,[25] and is cited as a major contributor to being unemployed, or taking early retirement.[34,64] This is particularly problematic for younger people who want to work for financial and/or social reasons,[25] and who may experience pain and functional challenges at key stages of their careers.[67] Potential accommodations at the individual and employer level may include taking regular breaks, negotiating flexible working arrangements, environmental and task modification, supply and use of occupational aides, and enabling access to health services (eg, dietetics, physiotherapy).[68] Workplace support for OA may be more challenging in LMICs without social security or health "safety nets."[39] However, little is known in this area, and more research is needed to understand causality and prognostic pathways for all joints[62] and how workplaces can best support people with OA.

Built Environments and Neighborhoods

There are strong interconnections between the built environment, SDH and OA (**Fig. 2**[69]). The term "built environment" refers to all the elements of spaces that are

Fig. 2. Supportive neighborhoods for people with OA. There are many elements and in local neighborhoods that can support the mental and physical health of people with OA. *(From* Bowden JL, Hunter DJ, Feng Y. Using neighbourhood environments to support osteoarthritis management - a scoping review. Osteoarthritis Cartilage. 2021;29:S377; with permission)

modified by human intervention, including houses, streets, commercial spaces, green open spaces, and other uses that make a place urban rather than natural (**Box 4**). It comprises all the spaces where people live, work, and socialize and the way people travel between these spaces.[70]

Box 4
Utilizing the built environment at different scales

The way built environments shape health, including the prevention and treatment of OA, needs to be conceptualized at different scales. At the scale of the city, healthy built environments require connectivity through active and public transport infrastructure, dense networks of green and public spaces, and a diversity of housing choices. Healthy cities aspire to the strategic location of services and employment in centers close to where people live, so that the things people need to be healthy can be accessed easily and safely. They typically discourage over-reliance on the private car. At the scale of the neighborhood, healthy built environments contain intuitive street networks that are safe, and public and open spaces that are responsive to context and well maintained. Healthy neighborhoods provide infrastructure for community interaction and physical activity, such as playgrounds, public squares, community facilities, and parks. They offer a diversity of densities and uses, catering to the needs of different populations. At the scale of the building, healthy built environments are designed to provide protection from harms, including noise and air pollution, and extremes of heat and cold. They are well constructed to ensure longevity and resilience. Healthy buildings are open to the streets on which they sit. They encourage social interactions, but also provide spaces of privacy and retreat. At all scales, healthy built environments are planned and managed to be inclusive and responsive to diverse spatial, temporal, and cultural contexts. Planning for healthy built environments aspires to equity and balance in built, social, and economic outcomes.[71]

Healthy built environments can enhance OA care by providing opportunities for physical activity through active transport and recreational walking (see **Fig. 2**). For example, built environments with higher population densities and access to a variety of commercial destinations, where streets are grid-like and easy to navigate, sidewalk and cycleway provision is prolific and of high quality, and public transit is available, encourage transport by alternative modes, including those using physical activity such as walking and cycling. Access to prolific and well-designed green open spaces can encourage recreational physical activity, including recreational walking. By getting people out and about in the neighborhood, well-designed neighborhood environments that are safe and inviting can also facilitate social interactions, which are important in fostering resilience to mental health conditions, as well as preventing loneliness.[72] By providing greater accessibility to shops and services, healthy built environments can also facilitate regular access to fresh and healthy food by ensuring all the ingredients for a fresh meal can be purchased at a reasonable price within walking distance. Environments that reserve space for community gardens and other forms of urban agriculture can provide opportunities for communities to engage in the process of growing fresh produce for the enjoyment of communities.

The critical link between built environments and health has been recognized globally and reflected in the Sustainable Development Goals. Many countries now integrate health within the urban planning reform through legislative and policy mechanisms,[73] which can help combat barriers to better use of the built environment (**Box 5**). Argentina, for example, has developed a guidance framework for local municipalities to implement components of the National Health Plan.[74] The actions target healthy eating, physical activity, and combatting tobacco use by outlining suggested actions

Box 5
Barriers to the use of the built environments in OA care

Although the evidence linking the way built environments are structured and managed to the SDH is clear and prolific, there are several barriers to the use of built environments for the prevention and treatment of OA, specifically:

1. although built environments relate to an array of chronic noncommunicable and communicable health conditions, the research and practice agenda has generally directed focus on several specific diseases, in particular cardiovascular diseases (eg, Ref. [81]).
2. built environments that characterize urban spaces and cities around the world are, notoriously if unintentionally, only designed for people who do not experience impairments in physical function. Built environments are often blind to the needs of the diversity of ages, stages, and abilities that is the community in reality.[82] People with specific health conditions, older people, or those with limited mobility experience unique barriers to the everyday use of neighborhood-built environments for physical activity and social interaction.[83] For example, areas with poor walkability, where curb cuts (ramps) and connectivity are sporadic, as well as inaccessible public transport services, significantly limit social participation for people with OA.[9,72] This is not just limited to people with lower limb OA, but also hand OA, where the use of public transport and active transport requiring hand dexterity is limited by an inability to hold straps or poles, open doors, or use the brakes on a conventional bicycle.[25] These details are rarely considered in even the most comprehensive efforts to promote the provision of healthy built environments, creating major barriers to participation in the day-to-day activities that support good OA health and management.
3. mobilizing change in built environments requires a deep and broad engagement with institutions not generally considered within the remit of health. Achieving the scale of change required demands not only reform at the level of service delivery, but also policy reform at the system level across health, industry, transportation, education, and urban planning portfolios.[84] Often such change is dependent on political will, which can be notoriously unpredictable.

for improving health in schools, universities, and workplaces, including the option of certification as a health-promoting institution. Within a municipality, there is guidance on enabling safe and active transport, healthy squares and parks, and creating smoke-free environments.

There is, therefore, untapped potential to address built environments in OA prevention and care plans, and this is increasingly recognized by professions working in this space. A recent study of international key informants in health systems strengthening for musculoskeletal conditions stressed the importance of attention to the built environment, among other SDH, to realize health and well-being outcomes.[14] One avenue to better incorporate OA considerations in built environment planning would be to leverage existing ground forged by other conditions such as diabetes[75] and cardiovascular disease,[76] particularly in justifying interventions that promote physical activity.[77] Aging in place interventions, the walkable cities movement, and age-friendly cities are also examples of strategies with existing programs and support that could focus attention on built environments supportive of OA treatment.[78,79] Although acknowledging OA is relevant from younger adulthood and disability peaks at 55 to 69 years, the WHO Healthy Ageing model provides helpful guidance to health and social care systems on supporting functional ability. Specifically, integration between health care (ie, across multiple domains of intrinsic capacity) and social care (ie, long-term care services) are advocated.[80] Although integrated health care and long-term care are oriented toward healthy aging, the principles apply to optimizing outcomes in older people with OA.

Broader socioeconomic and political considerations of OA care

SDH have been recognized internationally as requiring priority attention, both as general public health initiatives[15] and more specifically in the context of OA[85,86] (eg, **Box 6**). Whole-of-government and whole-of-society approaches are required to ensure cross-sector actions are coordinated to facilitate the necessary sociocultural shifts.[85] The recently released OA Agenda 2020,[86] coauthored by a range of US OA stakeholders, endorsed the SDH section of the Healthy People 2020[87] as important to creating social and physical environments that promote good health across multiple sectors, including housing, education, parks, recreation, fitness, and transportation.

Although effective partnerships among public health, community-based organizations, social services, and medical care could improve population health outcomes, it has been challenging to develop sustainable payment models to support such

Box 6
Integration of social and medical care delivery

While recognizing that public health initiatives to improve social conditions occur outside of health care settings, health professional organizations have recommended better integration of social and medical care delivery systems as part of a comprehensive strategy to identify and address the social determinants of health.[91,92] Recommendations are being made for an expanded social history at the point-of-care,[93] yet most health care systems lack the infrastructure required. Systems need to develop comprehensive, systematic screening protocols that take into consideration patients' extra-personal, socioeconomic, or educational circumstances or responsibilities that may compromise their care, such as sole income provider, or childcare.[25,39,47,48] The training of health care professionals to address the SDH within their scope of practice is key for ensuring more equitable health outcomes for people with OA, their families, and communities.[92] In addition, referral protocols and relationships need to be developed between the health care systems and the various community service providers to address the health-related social needs of patients.

partnerships.[88,89] Several innovation projects in the United States have provided some valuable insights regarding addressing SDH.[89] These include: (i) the importance of establishing cross-sector partnerships; (ii) building data systems that bridge health and community services, and (iii) developing a workforce to deliver interventions to vulnerable populations.[89] In the United States, the Centers for Medicare and Medicaid Services has a program designed to accelerate the development of a scalable delivery model called the Accountable Health Communities (AHC) to assess whether systematically identifying and addressing health-related social needs can improve health and reduce costs and utilization among community-dwelling Medicare and Medicaid beneficiaries.[89,90] Evaluation of the AHC may provide valuable insights for ways to develop models around the world.

SUMMARY

Integration of the different contexts and settings in which people live, work, and socialize has the potential to improve the health and well-being of people with OA. Yet, many of these SDH are poorly integrated into current OA care. Exploring and integrating factors such as work, education, psychosocial issues, and the built environment when discussing OA care with patients has the potential to enrich the management of OA across the life course. Having these factors accepted and implemented at all levels of health care delivery is essential to ensuring everyone can live well with OA.

CLINICS CARE POINTS

- Greater consideration and integration of social determinants of health are needed to ensure people with OA can continue to work and live well with their communities.
- Successful integration of social determinants of health requires a comprehensive assessment of an individual's circumstances, including socioeconomic and psychosocial factors, and the settings in which they live, work, play, and socialize.
- Building linkages to local health care, community, and cultural services is an effective way to support people with their care, within their local neighborhoods.

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