

SPINE20  
Recommendations  
to the G20  
*Rome -2021*



Care for People's Health and Prosperity



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# SPINE20 Recommendations to G20

## Rome, 2021

### RECOMMENDATIONS

SPINE20 calls upon the G20 countries to expand telehealth for the access to spine care, especially in light of the current situation with COVID-19.

SPINE20 calls upon the G20 countries to facilitate access and invest in the development of a competent rehabilitation workforce to reduce the burden of disability related to spine disorders.

SPINE20 calls upon the G20 countries to engage in capacity building with emerging countries and underserved communities for benefit of spine patients.

SPINE20 calls upon the G20 countries to adopt value-based interprofessional spine care as an approach to improve patient outcomes and reduce disability.

SPINE20 calls upon the G20 countries to adopt a strategy to promote daily physical activity and exercises among the elderly population to maintain an active and independent life with a healthy spine, particularly after COVID-19 pandemic.

SPINE20 calls upon the G20 countries to promote strategies to transfer evidence-based advances into patient benefit through effective implementation processes.

**Spine Care; Luxury or Necessity**

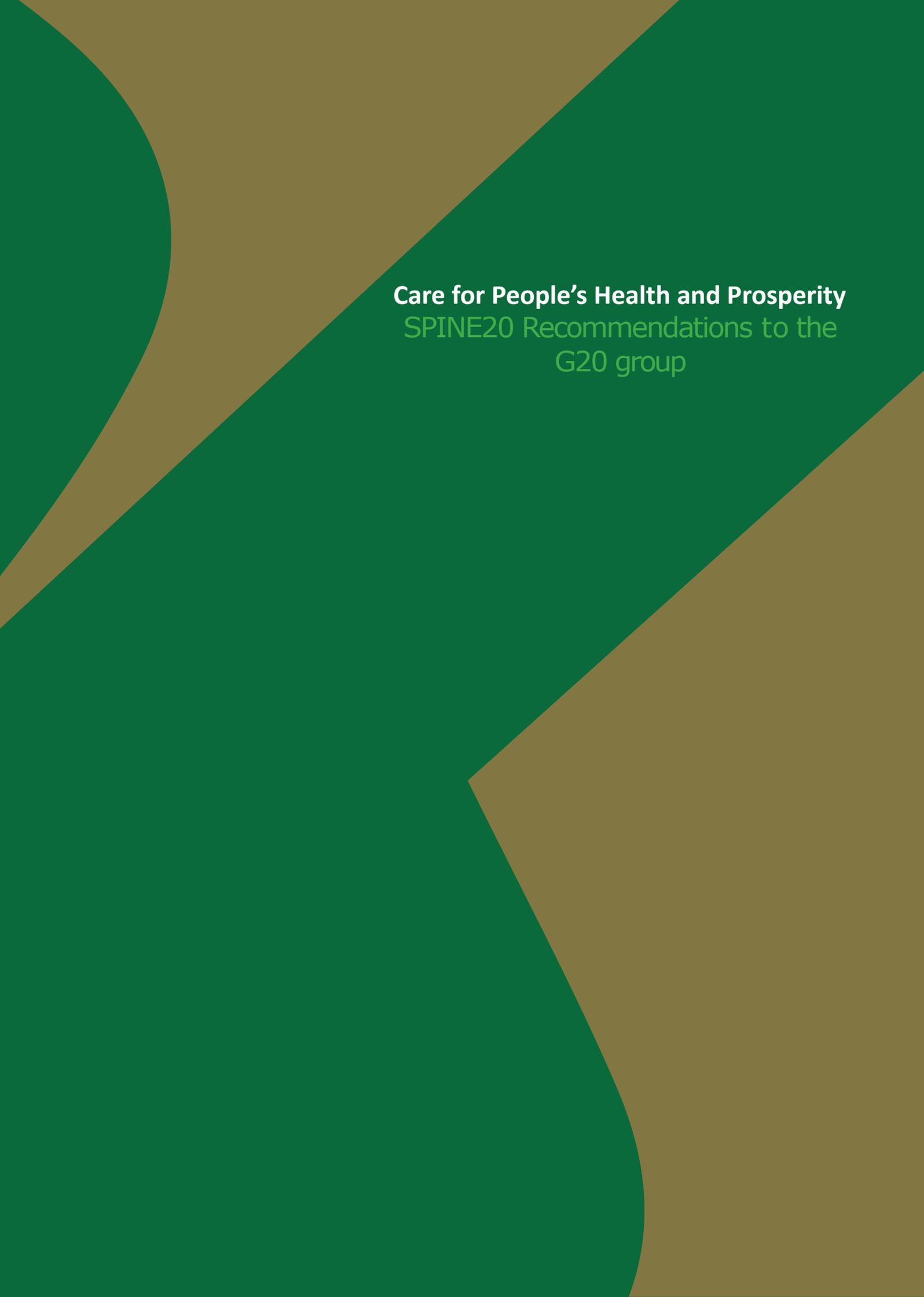
**Spine Rehabilitation Means Prosperity**

**Spine Health And Aging**

**Burden Underserved Communities**

**Achieving Effectiveness**

**Future Perspective Global**

The background of the page is composed of large, abstract, organic shapes in two colors: a vibrant green and a muted, earthy brown. The green shapes are primarily on the left and bottom, while the brown shapes are on the right and top. The text is centered in the upper right quadrant, overlapping the green and brown areas.

**Care for People's Health and Prosperity**  
SPINE20 Recommendations to the  
G20 group

## Introduction

Global demographic and health changes have led to a rapid increase in the number of people experiencing disability due to non-communicable diseases (NCDs).[1-3] Musculoskeletal disorders are both predominant and the leading cause of disability within the NCDs group; this translates to 1.71 billion people affected, equating to 149 million years lived with disability.[3] Among all musculoskeletal disorders, spine pain is the leading cause of disability with more than half a billion individuals worldwide experiencing disability due to low back pain.[1] In 2017, the World Health Organization (WHO) launched the Rehabilitation 2030 initiative to mobilize the global community and reduce the burden of disability.[4]

Recently in 2019, four large spine care and research non-governmental organizations (EUROSPINE, the North American Spine Society, the German Spine Society, and the Saudi Spine Society) formed SPINE20, an advocacy group to bring global attention to spine disorders (Table 1). The main focus of SPINE20 is to develop evidence-based policy recommendations for the G20 countries to work with governments to reduce the burden of spine disease, disability, and injuries.



**More than half a billion individuals worldwide experiencing disability due to low back pain.**



**Table 1: The SPINE20 suggested multi-dimensional initiatives**

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Establish high educational standards for spine care providers that ensure quality care throughout the world.

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Invest in spine research that increases our knowledge to improve spine care globally.

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Adopt spine disability prevention strategies that lead to healthier populations.

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Improve the ability to address issues relative to the aging population with spine disorders through government policies and recommendations.

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## How can SPINE20 inform G20 nations?

The report from the May 21, 2021, G20 Global Health Summit stated: “We, the leaders of G20 and other states, in the presence of the heads of international and regional organizations meeting at the Global Health Summit in Rome, May 21, 2021, having shared our experience of the ongoing global COVID-19 pandemic, and welcoming relevant work in this regard.” The G20 Global Health Summit provided 16 recommendations related to the COVID pandemic and recognized the very damaging impact of the pandemic on progress towards achieving the Sustainable Development Goals (SDG).

In this document, the G20 group reaffirmed their commitment to achieving the goals to strengthen efforts to build back better (as in UNGA resolution, 11th September 2020), and to the International Health Regulations 2005, which together will improve resilience and global health outcomes

As a newly formed advocacy group, SPINE20 is committed to working to facilitate the implementation of these recommendations. Specifically, SPINE20 recognizes the COVID-19 pandemic has led to a reduction in the availability and access of surgical and rehabilitation care. Moreover, SPINE20 understands that the burden of spine disorders in general, and low back pain in particular, will likely increase due to unmet rehabilitation needs and the growing number of people with “Long-COVID.” This is particularly important because spine problems are the greatest contributor to disability and health expenditures globally.[5] Furthermore, low back pain is particularly common in women, the elderly, and low-income populations.[6] The SPINE20 recommendations to the G20 group are meant to highlight deficiencies in prevention, education, access to spine care, and mitigating disability from spinal disorders in an effort to reduce the wave of disability that will follow the COVID-19 pandemic.

The recommendations are intended to benefit individuals with spine and low back ailments, thereby benefitting the community and ultimately the country adopting the recommendations. The world has different needs depending on the geographical location and socioeconomic status. One recommendation may not fit all. The potential solutions and strategic plans must be developed by the local health ministry with support from spine societies, public health officials, and available care systems. The recommendations must be adapted and accepted by the cultural environment, have a positive economic impact, and finally must show progress over time.

## Domain concept

The concept indicates that all recommendations should be based on the specific domain that SPINE20 considered as critical for global spinal problems. In 2020, SPINE20’s first recommendations were created based on 11 domains including “Spinal disability,” “Prevention,” “Value-based care,” “Patient’s safety,” “Access to care,” “Education,” “Research and innovation,” “Pediatric,” “Aging spine,” “Spinal cord injury,” and “Low back pain.” In 2021, the Publication and Recommendation Committee decided to retain 5 domains from 2020 to 2021 including “Spinal disability,” “Value-based care,” “Access to care,” “Research and innovation,” and “Aging spine.”. Additionally, this year the committee has decided to add two critical domains: “Implementation and outcomes” and “Building capacity.”



**SPINE20 recognizes the COVID-19 pandemic has led to a reduction in the availability and access to surgical and rehabilitation care.**



**“Implementation & outcomes” and “Building capacity” are the new domains for SPINE20 – 2021.**



## Recommendations of SPINE20 in 2020

The first inaugural meeting of SPINE20 took place in Riyadh, Saudi Arabia on November 10 and 11, 2020. SPINE20 was registered in 2020 under the C20, the official engagement group of G20 as a platform of Civil Society Organizations around the world bringing forth a dialogue with the G20. During the meeting, 12 recommendations were shared and endorsed by 206 spine specialists in 27 countries representing 33 registered non-governmental spine societies from around the globe (table 2). The full-length recommendations are posted on the SPINE20 website ([www.spine20.org](http://www.spine20.org)), and a shorter version was published in the European Spine Journal 2021.[7]

**Table 2: Domains and recommendations of SPINE20 2020**

<b>Domains</b>	<b>Recommendation</b>
<b>Spinal disability</b>	Develop policies and support systems to mitigate the increasing burden of spinal disability on health care, the economy, and social security systems.
<b>Prevention</b>	Examine and adopt prevention strategies to limit spine problems, including exercise incentive programs to cultivate healthy populations.
<b>Value based care</b>	Implement the principles of Valued-based Health Care in spine practice to optimize spine care in the global community.
<b>Patient's safety</b>	Recognize the need to address patient safety which requires appropriate training and teamwork in spine care.
<b>Education</b>	Define global standards for continuing education and training curricula for spine care practitioners that promote inter-professional collaboration and patient-centered care.
<b>Research and innovation</b>	Create global big data collections in the form of registries or other modalities in order for future care to be based on reliable and valid outcome data.
<b>Pediatric</b>	Promote balanced nutrition in the young population, to ensure full access to vitamins and nutrients throughout childhood.
<b>Access to care Pediatrics</b>	Support projects that improve access to quality spine care for the pediatric population particularly in areas with limited resources.
<b>Aging</b>	Encourage and support osteoporosis preventive strategies and earl detection measures, particularly in the older population at risk of developing osteoporotic fractures.
<b>Spinal cord injury</b>	Create global awareness for the prevention of spinal cord injury.
<b>Access to care Spinal cord injury</b>	Promote global access to comprehensive healthcare for individuals with spinal cord injury to facilitate community inclusion, return to the work force and improve quality-of-life.
<b>Low back pain</b>	Recognize that lower back pain is the leading cause of years lived with disability and loss of function in the world. Create low-cost models to ensure the right care is delivered at the right time.

## Recommendations and rationale proposed for SPINE20 2021:

On September 17 and 18, 2021, SPINE20 held its 2nd annual meeting in Rome, Italy with the theme “Spine Care for People’s Health and Prosperity.” Before the meeting, the SPINE20 Scientific Committee and Publication and Recommendation Committee created 6 proposed Recommendations including their rationale. These recommendations were uploaded to the SPINE20 website (<https://spine20.org/event/>) 10 days before the 2nd annual meeting and opened to the public for comments. Subsequently, the recommendations were discussed at the hybrid annual meeting September 18, 2021, allowing the participants to reflect, discuss, object, and provide comments. One hundred and eighty-eight participants from 27 countries endorsed the proposals as our recommendations for SPINE20 2021. The final recommendations are listed below with their respective rationale. Recommendations acted upon by SPINE20 societies will be tracked and presented at the following year’s SPINE20 meeting.

### A. Research and innovation, Access to care

#### Recommendation

SPINE20 calls upon the G20 countries to expand telehealth for the access to spine care, especially in light of the current situation with COVID-19.

#### Background

The COVID-19 pandemic has greatly affected the life, health, and society worldwide.[8] To prevent the spread of COVID-19 and to enable health care systems to manage the increase in seriously ill persons, severe restrictions on daily life have been implemented such as home confinement or lockdown. Though such emergent countermeasures were effective to some extent to prevent the spread of COVID-19 in the community, a prolonged situation with countermeasures could also negatively affect several aspects of people such as deterioration in mental health and quality of life (QOL).[9] In addition, patients with spinal disorders may experience delays in timely access to the hospital due to fear of exposure to the infection or hesitating to seek treatment and/or restrictions of outpatient clinics.

#### Problem

Many patients with spinal disease have lost access to care especially during the COVID-19 pandemic. Government and hospital policies in response to this pandemic have not only limited surgery case volumes but also access to in- and out-patient clinics for rehabilitation and specialty care. While the guidelines with increased restrictions to hospitals are necessary, they have also created significant challenges in ensuring continuity of patient care for spinal disease.



**Many patients with spinal disease have lost access to care especially during the COVID-19 pandemic.**



### Potential solutions

SPINE20 calls upon the G20 countries to expand telehealth for spine care, especially in the current situation with COVID-19.[10] By taking this measure, patients with spine disease can obtain timely advice to alleviate pain, recognize alarm symptoms, and be treated in a timely manner. The process of rapidly implementing spine telehealth services in the context of a changing regulatory landscape and global pandemic has been detailed in recent publications about the benefits and limitations of telehealth during COVID-19. For example, telehealth can increase access to specialty care for patients without prolonged travel time comparing to in-person visits and decrease the socioeconomic burden for both patients and hospital systems.[11] There are high satisfaction rates with telehealth for both patient and health providers, and willingness to have remote visits for the patients.[12] However, telehealth has not been widely adopted in spine surgery. This might reflect the inherent limitations of telehealth visits for physical examination, rehabilitation, previous restrictions on billing, the frequent need for technical troubleshooting, and a prior lack of an impetus to change.[13] In addition, the economic evaluations of telehealth should be validated. While some reports demonstrated a significant cost-saving benefit with telehealth visits, the generalizability of these findings is limited due to the variability in healthcare systems around the world.[14] Hence, to develop a system in each G20 country to support telehealth in this COVID-19 era is urgently needed to ensure the access to care for patients with spinal



**Telehealth in COVID-19 era could ensure the access to care for patients with spinal disorders.**



## B. Value based care

### Recommendation

**SPINE20 calls upon the G20 countries to adopt value-based interprofessional spine care as an approach to improve patient outcomes and reduce disability.**

#### Background

Lower back pain affects 80 to 90% of the adult population in both industrialized and emerging countries. Evidence suggests that 30% of affected individuals experience disability and loss of function.[3] Such prolonged pain leads to loss of function, ability to work, poverty, and the ability to provide for oneself, the family, and the community, and is often the primary cause for loss of quality-of-life.[15] Spinal cord injury, on the other hand, is one of the most devastating ailments that can afflict mankind. It can have major socio-economic consequences not only for the individual but also the family and the society.[16]



**Lower back pain affects 80 to 90% of the adult population.**



## Problem

Due to its high prevalence and chronicity, spinal diseases remain a leading cause of disability.[17] This global burden of disease affects numerous individuals regardless of status or where they live.[18] Return to function and productivity is the goal that doctors and other healthcare providers, patients, insurance companies (payers), and governments all share. Economies suffer when well-trained workers cannot produce. One goal of efficient and effective spine care is first to avoid disability where families might ultimately end up living in poverty. In addition, better caregiver training and early intervention for spine problems is essential to help ensure prosperity and healthy economies. [19, 20]



**Spinal diseases remain a leading cause of disability.**



## Potential solutions

SPINE20 calls upon the G20 countries to understand that effectiveness in spine care occurs when multiple specialties work together using evidence-based methods to find the most effective and efficient care for any given patient. By utilizing the various training and experience of multiple professionals, patients are the ultimate benefactors.[21] Value-based healthcare delivery is a context that embraces how efficiently a patients feels their ailments have been handled, how the providers of care perceive that the process works for them, how training and research contribute to innovation and the improvement of services provided to patients (without hindering the operational process), and how effective institutions / organizations manage costs and generate revenue while achieving and sustaining the abovementioned points.[22] Proper screening and assessment are essential to developing better suited treatment plans. Whether the indications lead to rehabilitation that can include physical therapy, injections, medical care, surgery, or other options, the key is a thorough understanding of the condition and the most effective treatment option for each given the patient's unique circumstance and the evidence behind such treatments.



**Value-based spine care reduces costs and decreases disability for a more productive population.**



Governments should encourage multi-specialty care by providing incentives or fair payment paradigms that bring multiple perspectives to bear on any given patient. This includes primary care physicians, surgeons, physiatrists, physical therapists, occupational therapists, chiropractors, pain management specialists, psychologists, psychiatrists, social workers, orthotists, assistive technologists, vocational counselors, peer counselors, and others who can all contribute key insights that will optimize comprehensive care for patients. Specifically, this team effort will improve patient screening which can identify at-risk individuals so that potential spine problems can be prevented or minimized.[23] It can also lead to optimal outcomes for patients while also lowering costs through non-surgical assessments which can be an effective tool to help those with limited resources find evidence-based and effective treatments.

## C. Spinal disability, Access to care

### Recommendation

SPINE20 calls upon the G20 countries to facilitate access and invest in the development of a competent rehabilitation workforce to reduce the burden of disability related to spine disorders.

#### Background

The COVID-19 pandemic has led to unprecedented increase in unmet rehabilitation needs. Moreover, the prevalence of chronic spine pain and disability is likely to increase because of the growth in the number of individuals with “Long COVID.” Low back and neck pain will continue to be the main causes of disability globally and this puts a great burden on the healthcare systems and economic welfare of our societies.[5] However, most people who would benefit from rehabilitation for their back and neck pain cannot access these services because they are not available, are not affordable, or because of a lack of health care providers on the ground.[3] This is problematic because rehabilitation is considered an essential part of universal health coverage, and an important strategy for achieving the United Nations’ Sustainable Development Goal of ensuring healthy lives and well-being for all.[24] The impact of this problem is magnified by the common use of rehabilitation interventions that do not benefit patients, and are costly to health care systems.[25].

In 2017, the WHO recognized this important problem and issued a call to strengthen access to rehabilitation globally.[4] The WHO defines rehabilitation as “a set of interventions to optimize functioning and reduce disability in persons with health conditions when interacting with their environment.” In many countries, including G20 nations, the rehabilitation workforce is too small or not adequately trained to meet the population’s needs. This shortage of competent rehabilitation providers has led the WHO and partners to develop a Rehabilitation Competency Framework to assist nations to develop and implement competency-based education and training and regulatory standards to train rehabilitation providers.[26] Therefore, to improve the productivity and well-being of the population globally, it is crucial to prioritize access to value-based and evidence-based rehabilitation care delivered by a competent rehabilitation workforce at all levels including community, primary, secondary, and tertiary care.

#### Problem:

Despite significant health expenditures, the global burden of disability related to spine pain continues to grow and the COVID-19 pandemic has amplified this problem. One reason for this reality is that the timely access to high-quality, value-based rehabilitation is limited in most countries, including G20 nations. A second reason is the continued use of ineffective and costly treatments.



**WHO issued a call to strengthen access to rehabilitation globally.**



**The global burden of disability related to spine pain continues to grow.**



### Potential solutions:

SPINE20 calls upon the G20 countries to facilitate and invest in the development of a competent rehabilitation workforce to reduce the burden of disability related to spine pain. The health, well-being, and productivity of the population will benefit from:

1. Developing a rehabilitation workforce that can deliver high quality and value-based rehabilitation for people with spine pain.
2. Promoting the delivery of high quality and value-based rehabilitation for people with spine pain.
3. Facilitating easy access to high quality and value-based rehabilitation aimed at returning injured workers to a productive life.

The government efforts should target the timely delivery of quality rehabilitation to those individuals to achieve population prosperity. The delivery and accessibility of rehabilitation services (including return-to-work interventions) that are supported by high-quality evidence must be prioritized. If implemented, this recommendation will promote improvements in the health, well-being, and wealth of the population.



**SPINE20 calls to facilitate and invest in the development of a competent rehabilitation workforce.**



## D. Aging, prevention

### Recommendation

SPINE20 calls upon the G20 countries to adopt a strategy to promote daily physical activity and exercises among the elderly population to maintain an active and independent life with a healthy spine, particularly after COVID-19 pandemic.

#### Background:

The degenerative spinal disease occurring later in adult life such as osteoporotic vertebral fractures have a significant impact on the changes of expectation and activity in the lifestyle of the elderly population.[27] It also effects their position/role in the family as well as local economic factors. The absolute risk of subsequent osteoporotic vertebral fractures among women with a previous vertebral fracture has been reported to be 50%, compared to 9% among women with no previous fracture.[28] WHO reports a tremendous increase of expected geriatric spine fractures, which needs a new approach for cost-effective prophylaxis and treatment options.[29]

## Problem

The social and financial burden upon local communities and the G20 countries to support the elderly with spinal degenerative disease and/or osteoporotic vertebral fractures is significantly increasing.[30] Degenerative spinal disease often causes progressive immobility, severe neurological problems, and/or postural abnormality. All these spinal pathologies often result in chronic pain and disability which negatively affect the daily activity, the physical activity, and the quality-of-life of elderly individuals. In addition, a lasting COVID-19 pandemic could lead to a decrease in regular exercise which is a vital management strategy for addressing chronic pain, mental health, life satisfaction, mortality, and quality of life in the elderly population.[31]

## Potential solutions

SPINE20 calls upon the G20 countries to adopt strategies to promote daily exercises among the elderly population to maintain an active and independent life with a healthy spine, particularly after the COVID-19 pandemic. Physical activity and exercises, proper nutrition, and a smoking-free lifestyle are proven to reduce the severity of osteoporosis and frailty of the trunk among the elderly, helping them to maintain the ability to ambulate and carry out light daily activities.[32, 33] Education for health care practitioners on prevention strategies for the aging population and similar education for the elderly population are the best tools to prevent degenerative changes that might lead to severe symptoms and osteoporotic fracture. In addition, although they cannot be recommended as public health programs, clinical screening tools such as bone mineral density might help to identify individuals at risk of developing vertebral fractures, and could represent a critical strategy to minimize the spinal pathology burden in the elderly.[34, 35] Finally, a proper treatment strategy for patients with osteoporosis and/or degenerative spinal diseases should be defined, through a multidisciplinary approach, according to scientific evidence-based assessments and subject to human and financial long-term outcome and cost analysis.[36]



**Daily exercises among the elderly population to maintain an active and independent life with a healthy spine.**



## E. Capacity building, Education

### Recommendation

**SPINE20 calls upon the G20 countries to engage in capacity building with emerging countries and underserved communities for benefit of spine patients.**

### Background

Spinal problems are among the most frequent causes of loss of function ranging from acute low back pain to permanent disability.[15]

It is one of the major causes of poor or significant loss of QOL, especially in the underserved areas of the world. Ignorance, cultural and financial problems, and geographical and political aspects are essential reasons that limit people's access to care and deserve to be considered and discussed in detail.[37] It is crucial to understand the role of adequate information and awareness of the general public on preventing spinal diseases and spinal injuries.[38] Furthermore, many chronic and disabling spine problems are directly related to work-associated spine overuse and may lead to significant spinal injuries, sometimes even life-threatening due to work-related accidents.[39]

### Problem

There is poor standard of spine-care in different parts of the world, especially in underserved areas or emerging countries. Many of these reasons are linked to ethnic and cultural factors, representing barriers that must be understood and respected.[39] In contrast, others are related to socioeconomic and geopolitical factors that are tied to decisions made by the policymakers and government officials. Based on our experiences, it is impossible to properly understand and support the needs of the people in emerging countries. This is mainly because our perception of spine care in these environments is fundamentally different from that of less fortunate people living there.[40] Genuine service, humility, and a deep appreciation of the context where change is needed is a condition for any strategy for change.[41] Therefore, the essential step to tackle the poor standards of spine and lower back pain care in underserved communities is to obtain a proper understanding of the enormity of the problem. It requires strict and direct collaboration with all those professionally involved in delivering care in those regions and those who deal with the scarcity of resources in delivering their services daily.[39]

### Potential solutions

SPINE20 calls upon the G20 countries to increase capacity-building with emerging countries to transfer the benefit to underserved communities. There is enough evidence to show the considerable burden of spinal problems, which disproportionately affect the poorest, especially in underserved communities.[42] To address the disproportionate distribution and access to optimal spine care, senior administrators and policymakers in developing and underserved countries need to network and create alliances, adopt specific strategies based on the best clinical practices of countries with robust spine health care systems.[43] Long-term, realistic, region-specific goals for the improvement of spine care need to be developed based on region-specific factors such as the local epidemiology, availability of resources, social beliefs, attitudes /mindset, and urban versus rural distribution of health services.[44]



**There is poor standard of spine-care in different parts of the world, especially in underserved areas or emerging countries.**



**SPINE20 calls upon the G20 countries to increase capacity-building with emerging countries.**



Strategies to improve the standards of spine care would also need to focus on cost-effective high-impact practices, locally relevant clinical guidelines, professional oversight, targeted education/professional retraining, organizational change, and dedicated research.

Therefore, more proactive collaboration and support from international scientific communities, individually or in working groups is needed to help build and promote autonomous local scientific bodies.[45] Addressing the root cause of spine and back injuries should be one of the significant interventions for preventing these conditions and should constitute one of the tenets of management. Therefore, investing in health information and spine and back injury education for both consumers and providers of spine care would be a cost-effective intervention in underserved nations with limited resources. This means that increased investments are needed to provide more information about the pathophysiology of the spine and lower back pain to the population (i.e., to the consumers and providers of care). The focus of such education should include how to prevent the incidence of injury and promote proper ergonomics during physical labor (and supply equipment) that will promote and reduce the incidence of work-related spine and low back injury.

## F. Implementation and Outcomes

### Recommendation

SPINE20 calls upon the G20 countries to promote strategies to transfer evidence-based advances into patient benefit through effective implementation processes.

#### Background

Proving the effectiveness of a clinical approach is not always enough to guarantee its adoption by the health services and healthcare professionals. It has always been a challenge to find the best way to enhance the uptake of evidence-based practices and thereby increase their public health impact. The lack of common language, transformative goals, embedded evaluation, plans, and shared agenda, in addition to the mentality of ‘short-termism’ are considered some of the main obstacles to translating evidence-based scientific discoveries into widespread patient benefit.[46] Research that highlights the emphasis on organizational accountability and the application of research questions to assess whether the policies were implemented as planned led to the emergence of implementation science.[47]



Proving the effectiveness of a clinical approach is not always enough to guarantee its adoption.



Implementation science is the scientific study of the methods to promote the systematic uptake of evidence-based research findings into routine healthcare in clinical, organizational, or policy contexts, hence to improve the quality and effectiveness of health services.[48, 49] This field incorporates a scope broader than traditional clinical research as it not only focuses on the patient level but also at the provider, organization, and policy levels of healthcare.[50]

### Problem

Evidence-based practices take on average 17 years to be incorporated into routine general practice in health care, although research constantly produces new findings that can contribute to more effective and efficient healthcare.[49, 51, 52] The delay in adopting a new approach might be necessary to ensure safety and efficacy. Yet, such delays are also recognized as a waste of scarce resources and might sacrifice potential patient benefit.

### Potential solutions

SPINE20 calls upon the G20 countries to promote strategies that enhance the translation of the evidence-based discoveries into a patient benefit at a global level through effective implementation processes. The presence of gaps between knowledge and practice is well documented in the literature.[53, 54] Addressing this gap with efficient strategies should be a policy priority to health research systems. Different reported barriers behind the adoption delay, include concerns over the quality of the guideline and the evidence on which it is based, financial constraints, lack of organizational support, impracticality of the guideline, patient preference, and clinician reluctance to change.[53] Decision makers need to use considerable judgement about how best to use the limited resources they have for clinical governance and related activities to maximize population benefits.[54] A range of strategies is available to overcome these gaps. Stakeholder engagement, effectiveness studies, research synthesis, and mathematical modeling are some of the methods used by implementation scientists to identify strategies to embed evidence-based interventions in clinical and public health programs.[47] While there is insufficient evidence to adequately support the use of many guideline implementation strategies, such as traditional educational strategies and guideline dissemination in isolation, there was convincing evidence in favor of the use of multifaceted interventions, interactive education, and clinical reminder systems for effective implementation of clinical guidelines.[53] To optimize the impact of any of these strategies, it is recommended that they get tailored to the target population, setting and goals for improvement.[49] Implementation strategies require the active engagement of transdisciplinary teams that include members who are not routinely part of most clinical trials such as health services researchers, economists, sociologists, anthropologists, organizational scientists, and operational partners including administrators, front-line clinicians, and patients.[49, 53]



**The presence of gaps between knowledge and practice is well documented in the literature.**



**Implementation strategies require the active engagement of interprofessionally and transdisciplinary teams.**



One of the most important aspects of the implementation process is the economic evaluation. It is a crucial tool that needs to be always incorporated into the implementation decisions for any adopted strategy.[55] It can inform decisions about the efficiency and allocation of resources to implementation strategies. We need to further promote research on the costs and cost–benefit analysis of guideline implementation strategies, along with the other environmental, organization, and individual clinician factors that are associated with effective implementation strategies.[53] For the patient benefit along with the benefit to the different stakeholders involved in the health care process, SPINE20 urges health systems all over the world to adopt an effective implementation strategy whereby an actionable plan is appropriately and successfully executed.

## Conclusions

SPINE20 is created as an advocacy group for governments and institutions, and other organizations to highlight evidence, valued-based spine care and to help prevent disability. Its recommendations are intended to reduce the burden of disease related to spine disorders by engaging governing stakeholders in the development of evidence-based policies. SPINE20 can serve as a resource of expertise for local and/or global advisement to mitigate disability from spine ailments. It is the hope of the founding group that its advocacy will reduce needless suffering from disabling pain through education about rehabilitation and other treatment modalities that can be instituted across the globe



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