# WHEN GOOD SCIENCE IS NOT ENOUGH

## THE NEED FOR ADVOCACY FOR PHYSICAL ACTIVITY

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THE NEED FOR ADVOCACY

In a recent issue of *Aspetar Sports Medicine Journal*, Matic and McKay[1] urged more focus on the process of implementation for sports medics and physical activity professionals. They encourage practical intervention strategies which take account of context and cited the World Health Organization's (WHO) call for evidence-based approaches to policy and practice in health promotion and multiple methods by advocates. But before implementation can begin, policy-makers and shapers need to be persuaded of the desirability of new measures or changes of direction. Such persuasion seems to be particularly challenging in the area of health policy, which continues to be dominated by clinical targets and treatment, rather than measures for prevention of sickness or disease. For example, back in 1986 the Ottawa Charter for Health Promotion[2] called for advocacy and increased movement towards health promotion beyond clinical and treatment services, yet there is little movement in this direction within the health sector.

There are, broadly speaking, three stages of persuasion:

1. Recognition/admission of the issue or problem.
2. Conviction that action can be taken to address it, leading to the political will to do so.
3. Allocation of resources to targeted policies, which in the case of public health, needs to be on a sustained basis, with outcomes recognised as being (at best) medium- or long-term.

Achieving even the first stage requires consistent, evidence-based advocacy and – not least – determination that messages will be heard by those people with the power and authority required to direct policy.

This article centres on the evident need for co-ordinated advocacy for physical activity in public health policies – a prerequisite stage before intervention strategies using physical activity are considered or deployed in any systematic way. It provides an example of how an international organisation, the International Council of Sport Science and Physical Education, can advocate for and achieve policy change.

THE ROLE OF NGOs

Increasingly, civil society organisations or non-governmental organisations (NGOs)

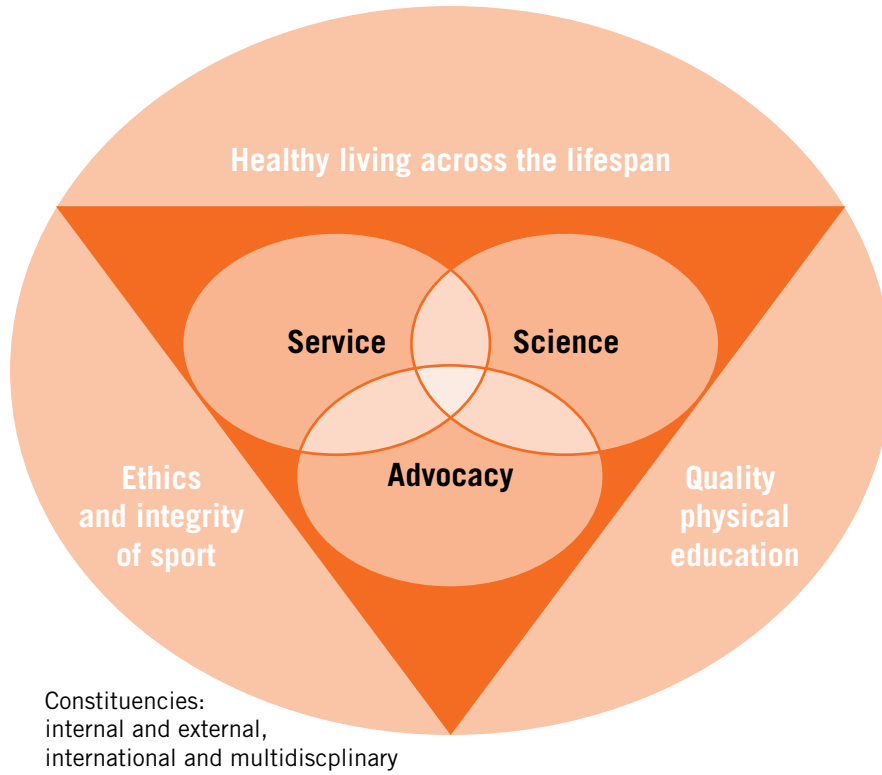


**Figure 1:** ICSSPE work programme.

are demonstrating to governments and politicians that they are a source of expertise and experience which can help with their policy agendas. At the same time, effective NGOs value their independence from governments, having in mind the need at times to challenge political decisions and to lobby for change. Effective leaders of such organisations manage the tensions between their organisation's 'expert' status and their activism, through informed, authoritative challenge to policies and decisions on allocation of resources. The recent Conference of Ministers and Senior Officials for Physical Education and Sport (MINEPS V) concluded with a recommendation[3] that "we can acknowledge and welcome that effective collaboration between cross-departmental government and sport NGOs and civil society, constitutes a 'dream team' for future development". However, such partnerships take time, commitment and energy to achieve, along with acknowledgement of shared agendas and purposes.

ICSSPE

The International Council of Sport Science and Physical Education (ICSSPE)[4] is comprised of 300 organisations and institutions which work with and within physical education and sports science. They include international, regional and national associations of physical education and sports science disciplines such as:

- philosophy, psychology and biomechanics,
- international, regional and national sport federations,
- national governmental and non-governmental agencies leading sport and physical education,
- specialist institutes and university departments and of course,
- sports medicine organisations such as the American College of Sports Medicine.

One of ICSSPE's strategic partners is the International Federation of Sport Medicine. Others include the IOC, the International Paralympic Committee (IPC), UNESCO and other UN agencies including the WHO and the International Federation of the Red Cross and Red Crescent Societies.

ICSSPE MISSION

ICSSPE sees ethical and inclusive sport and physical education, supported and serviced by good quality science and research, as its central mission. But these areas need to be bridged by effective education and dissemination and promoted through advocacy, both within the organisation and in wider international and national society. ICSSPE's international membership of broad interests across physical education and sport science has identified three strategic priorities for ICSSPE's leadership (Figure 1):

1. Quality physical education.
2. Healthy living across the lifespan.
3. Ethics and integrity in sport.

ICSSPE's purpose, with each of these themes, is threefold:

- encouragement of multi-disciplinary research,
- collation and dissemination of knowledge,
- collective action.

ICSSPE works on the basis of the belief that individuals, acting as agents for change, can each make a difference., Similarly, the actions of individual members of the scientific community can make positive contributions to social change[5]. However, ICSSPE's work demonstrates that interdependent interests across the sports sciences and physical education can benefit from co-ordinated advocacy. Often, deliberate action to influence policy on behalf of a large number of people and organisations can be very effective and persuasive. ICSSPE has unashamedly focussed on campaigning, as well as science. As the development scholar Amartya Sen[6] has commented, " ...the solidarity ... helps to generate social change across borders (perhaps by providing support for local groups, by generating critiques of policies of governments or simply by helping to place the addressing of neglected inequalities on the agenda for public discussion)."


**Figure 2:** MINEPS V logo.

Through the application of multiple disciplines and collaborative work between scholars and researchers working in different parts of the world, the available scientific evidence demonstrating value to health, well-being and the economy, educational attainment etc can be outlined[7]; and by scoping and mapping the international political landscape, the most effective means of influencing policy-shapers and decision-makers can be identified.

## QUALITY PHYSICAL EDUCATION

Since before the First World Summit on Physical Education, held in Berlin in 1999, the promotion of quality physical education (QPE) for all children and young people has led ICSSPE's action list. This is supported by UNESCO and WHO. The summit received a damning report on the ways in which physical education[8] had declined or been removed altogether from school curricula across the world, as well as presentations outlining its educational, social, health and economic value. The summit was a political event, designed to influence ministers and officials towards reviewing and re-establishing the place of physical education as a curriculum subject. This is the most comprehensive means of ensuring that children can learn the skills, knowledge and understanding they require for life-long participation in physical activity and sport, and learn the benefits that physical activity can have to their health and well-being. During the Summit, the opinion of the US Surgeon General was quoted[9]: it is more expensive not to provide physical education, than to do so.

The summit's outcome, the Berlin Agenda[10], was presented at the 3rd Conference of Ministers and Senior Officials in Physical Education and Sport (MINEPS III) which took place in Uruguay only a month later; and significantly influenced the recommendations of the consequent Declaration of Punta del Este[11]. The more important outcome was that QPE became embedded in the agenda and ongoing concerns of UNESCO's International Committee on Physical Education and Sport (CIGEPS) and hence was again discussed and included in the Declaration of Athens[12] following MINEPS IV in 2004. For UNESCO, this concern was first enshrined in its 1978 Charter for Physical Education and Sport[13]. The fact that influence on government policies is often a long process of repeating the same messages, consistently and clearly is reflected, after 20 years, in ICSSPE's continuing focus on QPE as a strategic priority, driven by ICSSPE's International Committee of Sport Pedagogy – which consists of the major international organisations whose primary purpose is physical education and sport coaching[14].

The work of this Committee has resulted in two further important developments:

1. The publication of ICSSPE's International Position Statement on Physical Education in 2010[15].
2. The production of international benchmarks for physical education systems in 2012.

The Position Statement was endorsed and supported by statements from UNESCO (CIGEPS), the International Paralympic Committee, the International Olympic Committee and The UN Office of Sport for Development and Peace. It has now been embedded within UNESCO's Guidelines for Quality Physical Education for Governments, to be published during 2014, along with reference to the international benchmarks; the case for QPE's benefits for health promotion is an integral part of those guidelines. ICSSPE is now extending the benefits of the guidelines by establishing, with the International Paralympic Committee, a working group of disability sport organisations, assisted by pedagogy organisations, to produce exemplification of the guidelines for work with children with disabilities and impairments.

ICSSPE has worked hard to provide the evidence of the value of physical education, to assist UNESCO in its efforts to influence governments to provide curriculum physical education. ICSSPE's membership also assisted UNESCO and co-hosts the German Federal Ministry of the Interior in collecting evidence and expert advice on the policy concerns which were embraced within the most recent MINEPS Conference, MINEPS V, held in Berlin in May 2013 – these being universal access to sport and physical education (making the case for investment in physical education and sport) and promoting and protecting the integrity of sport. The promotion of QPE directly supports the first two of these themes. The outcome of MINEPS V, the Declaration of Berlin[16], was also prepared using this pool of information and advice.

> ***There is little data available on the long-term effects of childhood activity/ inactivity on adult habits and health, especially data from populations of very young children[19]***

## ADVOCACY FOR PHYSICAL ACTIVITY IN HEALTH POLICIES

The scientific evidence supporting the value of physical activity for health is well-established, with authoritative, systematic reviews summarising a wide range of high quality research[17]. WHO has published guidelines on the most effective intensity, frequency, duration/volume and type of physical activity for health, with specific sections on different age group populations[18]. Yet policy action to address the serious issue of inactivity and its health implications has been painfully slow at national and decision-making levels. This is despite the proven, strong causal relationships between inactivity and a range of non-communicable diseases e.g. obesity, type II diabetes, hypertension etc. Particular concern has focused on the relationships between childhood obesity and inactivity and the immediate and long-term impact on health services and costs. However, the science demonstrating the long-term health impact of childhood inactivity on adulthood is less strong than that which links adult activity patterns to non-communicable diseases. There is little data available on the long-term effects of childhood activity/inactivity on adult habits and health, especially data from populations of very young children[19]. While longitudinal research is challenging and expensive, this is a notable gap in the research literature which remains to be filled. Stronger evidence of the cumulative impact of inactivity during childhood on life-long health would be a powerful addition for advocacy towards policy change.

## WHY LACK OF POLICY ACTION ON PHYSICAL ACTIVITY FOR HEALTH?

There are various reasons for lack of government action, despite the need for policy action being self-evident to researchers and health and physical activity professionals alike. There is, of course, the dominant culture of health policy, which focuses on treatment of conditions and illnesses, rather than on prevention. Even WHO, whose definition of health seeks to make it clear that it is more than absence of disease, sometimes reflects this dominant way of thinking. WHO's recent draft Action Plan "Better Health for Persons with Disabilities"[20], omits any consideration of preventive health measures or lifestyle management, and there is not one reference to WHO's own recommendations on physical activity for health. This is a notable omission, given that it is known that persons with disabilities are more likely than their peers to lead restricted lives and hence suffer from the results of inactivity. This dominant view of health policy is reflected at a national level in many, if not most countries. In this regard, advocacy for physical activity shares similar challenges with other means of prevention. It seems that ministers and senior officials are unwilling or unable to invest in strategies which will prevent future health problems, rather than dealing with current, sometimes seemingly overwhelming, demands on health budgets and infrastructure.

## A NEW SOCIAL MOVEMENT

Another explanation for the failure of physical activity advocacy is that the international – and most national – policy communities are relatively weak, especially in civil society. In contrast to the high profile leadership and voice for sport, through the major multi-event and global games organisers like FIFA, the IOC and IPC, with well-established relationships with UN agencies and – through national committees – with governments, there has been less co-ordinated NGO leadership for physical activity, whose interests tend to fall between the agendas of sport, health, education and youth. It is remarkable to observe that where the evidence of health benefit is strongest, i.e. for physical activity, policy advocacy has been weakest and least adopted by powerful international NGOs. In contrast, sport has powerful NGO champions, despite the fact that the evidence for long-term benefit of sport participation is much weaker and more fragmented.


**Figure 3:** The two asks.

> ***there is not one reference to WHO's own recommendations on physical activity for health***

DESIGNED TO MOVE

ICSSPE's leaders were therefore positive to an approach from Nike, at the end of 2012, to become involved as a partner in a report by a group of international scientists, which summarised the evidence of the adverse effects of inactivity on health, especially children's health. Having scrutinised the scientific basis of the draft materials and recognised the value of a partnership which also had been agreed with the ACSM, ICSSPE agreed to become one of three co-authors of Designed To Move[21] (DTM), which was launched at the Clinton Global Initiative in New York in September 2012. The aim of DTM is to establish an international social movement which will help to convince policy-makers and providers that inactivity is a serious health issue, especially among children and young people, which societies simply cannot ignore.

The DTM Report, which has been well-received for its value in advocacy by professionals working in physical activity for health promotion, includes projections of the social and economic costs of continued population inactivity, for both established and emerging economies.

For the USA, where total direct costs of inactivity in 2008 are reported as $90.1 billion, the projection for direct costs of inactivity for 2030 is $191.7 billion, a rise of 113%.

But for the emerging economies, where the decline in activity rates is steeper, the projections are worse:

- China's 2008 direct costs of inactivity are given as $12.2 billion, projected to rise to a staggering $67.5 billion in 2030, a rise of 453%.
- India's 2008 direct costs of inactivity are given as $1.3 billion, projected to rise to $7.5 billion in 2030, an even steeper rise of 477%.

By providing these projections, the co-authors hope to attract the attention of policy-makers and shapers who hitherto have managed to ignore the threats of inactivity to their nations' health. DTM makes two major requests, 'the two asks':

1. To create early positive experiences for children.
2. To integrate physical activity into everyday life (Figure 3).

The DTM Report provides examples and ways in which both requests can be met. For ICSSPE, DTM has provided an excellent opportunity for further promotion of two of its strategic priorities – quality physical education and healthy living across the life span.

Working together with a corporate entity in establishing and developing a social movement has been interesting, stimulating and demanding for ICSSPE as an international scientific NGO. The interest has stemmed from learning how a global commercial enterprise like Nike can mobilise resources which are rarely at the disposal of any NGO, no matter how high profile or powerful. In particular, the persuasive writing skills of talented marketers are commonly well beyond any scholar or researcher and have been a demonstrable asset. Yet on occasion, the writing has to be pulled back to the science. ICSSPE did need to point out that, while the 'epidemic' metaphor is acceptable in describing the spread of inactivity across the world, it is not appropriate to use the term 'infection' when referring to non-communicable diseases!

The engagement of talented scientists in this endeavour has also been an asset, since innovative ways of presenting the positive values of physical activity have emerged. The adoption and illustration of a 'human capital model' (Figure 4) is one example, which has the potential for development into a more direct, positive tool for health policy development, by modelling the health capital emanating from participation in physical activity.

ICSSPE and ACSM leaders are reassured that Nike's investment in this social movement is not a direct marketing tool for their products – rather, an expression of legitimate, long-term interest in extending the benefits of physical activity to a wider and larger population – a measure in which they are supported, for instance, by the World Federation of Sporting Goods Industries[22] and a crucial element of corporate social responsibility. Governments across several countries are increasingly working with the corporate and commercial sector, as well as civil society, to address complex issues. Perhaps the reluctance of some UN agencies to work co-operatively with appropriate companies in the corporate sector might be overcome, as NGOs which value their financial independence nevertheless see the benefits of cross-sectoral working. Certainly, DTM has opened doors to support from and gained the attention of influential government figures in a range of countries, even in its first year. If NGOs, government departments and agencies and the corporate sector bring their best assets together, much more can be achieved.

It is hoped that this emerging 'social movement' will be sustained and become more strategic, with co-ordinated activism and advocacy for the health and other positive benefits of physical activity. There is potential for a stronger and better co-ordinated international policy community as a result of this and other organisations' determination to secure a sustained role for physical activity as a preventive health measure.

*References*
*Available at www.aspetar.com/journal*

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## A CLOSER LOOK AT THE BENEFITS

### THE HUMAN CAPITAL MODEL

*The comprehensive benefits of sports and physical activity are underestimated today. This model shows the surprising spectrum of benefits of physical activity to an individual and economy. Each "capital" defines a set of resources that underpin our well-being and success.*

#### INTELLECTUAL CAPITAL

**IMPROVEMENTS IN:**

- Educational attainment
- School engagement
- Processing speed
- Executive function/Inhibition/ Mental flexibility
- Memory
- Academic performance
- Brain structure and function
- Concentration/Attention/Impulse control
- Learning
- ADHD management
- Age-related cognitive decline management

#### FINANCIAL CAPITAL

**IMPROVEMENTS IN:**

- Income
- Job success
- Productivity/Job performance
- Morale/Commitment/Turnover

**REDUCTION IN:**

- Health care costs
- Absenteeism
- Presenteeism

#### PHYSICAL CAPITAL

**IMPROVEMENTS IN:**

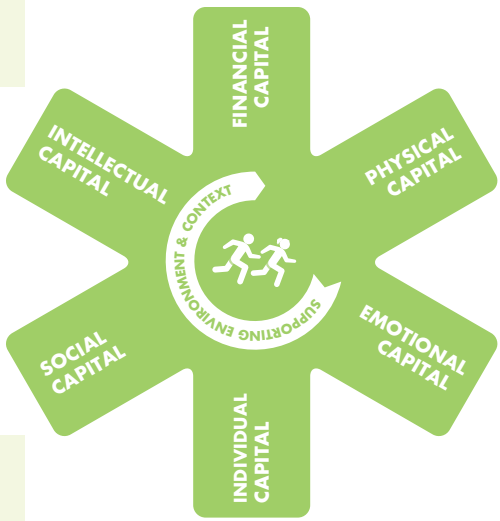
- General motor skills
- Functional fitness/ Physical appearance
- Cardio respiratory fitness
- Muscular strength
- Adiposity/Body composition
- Lipid profile
- Bone health/ Osteoporosis
- Joint health
- Maternal & infant health
- Rehabilitation & recovery
- Immune system function
- Sleep patterns
- Nutrition/Diet

**PREVENTION/ TREATMENT OF:**

- Metabolic syndrome/ Type 2 diabetes
- Overall mortality
- Cardiovascular disease
- Coronary heart disease
- Hypertension
- Stroke
- Colon & breast cancer
- Lung, endometrial, ovarian cancers
- Back pain

**REDUCTION OF:**

- Falls
- Smoking
- Teen pregnancy
- Risky sex
- Drug use
- Addiction
- Suicide




#### SOCIAL CAPITAL

**IMPROVEMENTS IN:**

- Social norms
- Social network/ Positive relationships
- Social status/Social commitment
- Social inclusion & acceptance
- Trust/Teamwork/Collaboration
- Civic participation
- Gender equality
- Equity for persons with disabilities
- Crime, juvenile delinquency & gang participation reduction
- Community cohesion
- Peace/Understanding/Recovery
- Bridging differences (socio economic status, racial, ethnic, disability, religious, sexual)
- Safety & support

#### INDIVIDUAL CAPITAL

**IMPROVEMENTS IN:**

- Activity knowledge and skills
- Social skills/Life skills/ Non-cognitive skills
- Sportsmanship
- Time management
- Goal setting
- Initiative/Leadership
- Honesty/Integrity/Respect/ Responsibility
- Enthusiasm/Intrinsic motivation
- Commitment/Self discipline/ Self control/Persistence
- Assertiveness & courage

#### EMOTIONAL CAPITAL

**IMPROVEMENTS IN:**

- Fun, enjoyment, satisfaction
- Feeling good
- Self esteem
- Self efficacy
- Body image
- Intrinsic motivation for physical activity
- Mood

**PREVENTION/TREATMENT OF:**

- Stress
- Depression
- Anxiety

Nike, Inc. initiated a multidisciplinary input and validation process with a pool of experts to develop this model, which is informed by more than 500 pieces of published research. The scholarly foundation for this work is further elucidated in "Physical Activity: An Underestimated Investment in Human Capital?" by Bailey, Hillman, Arent and Petitpas (forthcoming, 2012).



**Figure 4:** The Human Capital Model.