

THE RESPONSIBILITY OF INTERNATIONAL SPORTS ORGANISATIONS IN PROMOTING PHYSICAL ACTIVITY

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There is a public health epidemic of global proportion facing modern society: the rise in prevalence of non-communicable diseases (NCDs). Insufficient physical activity has been classified by the World Health Organisation (WHO) as the fourth leading risk factor for global mortality from NCDs following hypertension, tobacco use and high blood glucose. Insufficient physical activity is responsible for 3.2 million deaths annually or 5.5% of all deaths¹.

The International Olympic Committee (IOC) recognises the health and fitness benefits of physical activity and sport as stated in Recommendation #51 from the Olympic Movement in Society Congress held in Copenhagen, 2009:

"Everyone involved in the Olympic Movement must become more aware of the fundamental importance of physical

activity and sport for a healthy lifestyle, not least in the growing battle against obesity, and must reach out to parents and schools as part of a strategy to counter the rising inactivity of young people²".

In response to this recommendation, the IOC has implemented a number of projects to put Recommendation #51 into action. In 2010, the IOC signed a memorandum of understanding with the WHO "to join efforts and to co-operate... to promote healthy lifestyles, physical activity and sport among communities³". This was followed by a landmark speech given to the plenary session of the General Assembly of the United Nations (2011) by the IOC President. Dr. Jacques Rogge told the Assembly: "The problem is acute, the solution is at hand. It is a grim picture, except for one thing: we can do something about it⁴". Two IOC initiatives

to address the issue of NCD prevention are the 'Sport for All' programme and the 'Olympic Day' initiative.

Another action was the hosting of a consensus meeting in 2013 on the Prevention and Management of Non-Communicable Disease: The IOC Consensus Statement, Lausanne 2013⁵. This consensus statement addresses strategies for sport in the promotion of physical activity in the areas of prevention, as well as the treatment of NCDs. Another purpose of this paper is to create a solution to effect change within the healthcare system. During the opening address of the 2010 Olympic Movement Congress in Denmark, the IOC President stated "...that the Olympic Movement must continue to serve athletes, the world's youth and society at large for decades to come". As an action to this declaration, the IOC held a



consensus meeting in 2010 in Lausanne, to address the fitness and health of children⁶. Details of these two consensus statements are discussed below.

As members of the Olympic Movement, sports organisations also have a responsibility to promote physical activity with the purpose of preventing NCDs. A survey of all Olympic International Federations (IFs) outlines the priorities and activities of these organisations with respect to several health-related issues in their athletes and in the realm of global health promotion⁷. The Federation Internationale de Football Association (FIFA) and the Federation Internationale de Natation (FINA) are active in the promotion of their sports to improve global health. Their initiatives are also discussed below.

IOC CONSENSUS ON PREVENTION AND MANAGEMENT OF NON-COMMUNICABLE DISEASE⁵

In 2013, the IOC convened a consensus meeting to address the prevention and management of NCDs. The proposals of this group were:

1. Focus on behavioural change as the core component of all clinical programmes for the prevention and treatment of chronic disease.
2. Establish actual centres to design, implement, study and improve preventive programmes for chronic disease.
3. Use human-centred design in the creation of prevention programmes with an inclination to action, rapid prototyping and multiple iterations.

4. Extend the knowledge and skills of Sports and Exercise Medicine (SEM) to build new programmes for the prevention and treatment of chronic disease focused on physical activity, diet and lifestyle.
5. Mobilise resources and leverage networks to scale and distribute prevention programmes.

This consensus statement reviews the existing evidence behind the implementation of behavioural change theory, as well as exploring the innovation of human-centred design principles in the approach to the prevention of NCDs. It also identifies the important concept of developing the medical specialty of Sport and Exercise Medicine. SEM should integrate an evidence-based approach to the development of community-based prevention centres as well as an approach to the problem of NCDs which includes assessment (cognitive, physical capacity, behavioural), innovative programme design, implementation, monitoring and reassessment. The consensus authors call for the development of these prevention centres globally, and that they should be based on a financially viable model, ensuring the desirability for public participation and the feasibility of sport to deliver the programme goals of inspiring individualised behavioural changes.

This consensus also recognises and addresses the urgent need for action beyond SEM to have a larger, long-term vision with a co-ordinated, political shift within the healthcare setting to address the issue of the rising prevalence of NCDs. There is a need for healthcare restructuring with sufficient programming and funding to address the global NCD epidemic. The ultimate conclusion of the paper is that: "Creative solutions are available, beginning with evidence-based, human-centred programmes to provide preventive services immediately. Leadership is the key".

IOC CONSENSUS ON FITNESS AND HEALTH OF CHILDREN THROUGH PHYSICAL ACTIVITY AND SPORT⁶

Scientific evidence shows that insufficient levels of physical activity adversely affect the health of young people. There is also evidence that young people's physical activity levels are declining as they move into adolescence and sedentary patterns may track into adulthood. Accelerometer data, an objective measure of physical activity, indicates that less than 25% of children reach the recommended physical activity intensity thresholds. In addition, young people rarely experience habitual physical activity of the duration or intensity sufficient to improve their peak oxygen consumption (VO₂ max). There has also been a substantial deterioration in maximal aerobic performance in youth reported since 1975, with a decrease of about 4% per decade.

In response to these alarming statistics on the fitness and health of young people and to realise the Olympic Movement Recommendation #51, the IOC convened a panel of international experts to address the role of sport in the fitness and health of children in 2010. The objectives of the ensuing consensus statement were threefold⁶:

1. To identify potential solutions through collaboration between sport and existing programmes.
2. To identify research gaps in the field.
3. To provide recommendations on the subject for young people's sport and physical activity stakeholders.

The consensus authors reviewed the scientific evidence outlining the health consequences of the lack of physical fitness and physical activity in young people, including cardiovascular and metabolic health, bone health, obesity and mental health. In addition, insufficient physical activity leading to low fitness levels in young people results in an increased risk of injury in this population. This risk has been shown to be mitigated through the exposure of young people to a school-based fitness education programme.

A systematic review of the determinants of physical activity in young people failed to show high-quality information. On the other hand, correlates and determinants

of sedentariness include lower socioeconomic groups, older age, non-caucasian youth and homes with heavy exposure to electronic forms of entertainment, where parents do not set limits on screen time. Intervention studies show that family-based interventions set in the home may be a useful strategy to increase physical activity as well as creating safe environments where young people can engage in free play and engage in active transport (e.g. walking or riding a bike to school). School-based interventions to promote physical activity have also resulted in a positive effect on fitness and health when they include multi-component programmes involving families.

The consensus authors identified the importance of partnering with organisations in the field of physical activity promotion. Synergistic activities between sport and these organisations were recommended to better achieve common goals of global health promotion. Specific partners identified include the WHO, International Physical Activity Networks, non-governmental organisations (NGOs) and Government Ministries in charge of national education and healthcare systems.

Based on the scientific review of the existing evidence on the health and fitness of young people, the consensus authors concluded with specific recommendations on physical activity promotion addressed to Governments, education systems, healthcare systems and

NGOs. Identified research gaps resulted in explicit recommendations to the research community. In addition, recommendations to sport organisations included education for coaches, the design and implementation of youth-appropriate sports programmes, identification and lowering of the barriers to sports participation and support of research in the field.

THE ROLE OF INTERNATIONAL FEDERATIONS IN PROMOTING PHYSICAL ACTIVITY

A study published in 2013 in the *British Journal of Sport Medicine* by Mountjoy and Junge was conducted to determine the current priorities and activities of all IFs with respect to the promotion of health in their athletes and in the global population⁷. There were two parts to this survey:

1. IFs were asked to rate 10 specific health-related topics on the basis of perceived importance and
2. IFs were asked to identify their programmes/guidelines/research activities on 16 health-related topics.

The results of the first part of the survey showed that the IFs seem to recognise their responsibility to ensure athlete health and safety in their particular sport at the elite level. With respect to attention to the health of the global population, 'health of the general population' was of low importance for the IFs (ranking last of the 10 health-related topics of this survey).

There has been a substantial deterioration in maximal aerobic performance in youth reported since 1975, with a decrease of about 4% per decade

Few IFs had activities for the ‘prevention of chronic diseases in the general population’. Furthermore, ‘increasing the number of recreational athletes’ was of low importance for the IFs (ranking second last). Attention to the recreational athlete would not only be advantageous for IFs in terms of sport promotion and increasing the popularity of their sport, but also indirectly for the health of the population. The second part of the survey showed that while eight (23.5%) IFs reported having activities related to ‘prevention of chronic diseases in the general population’, only two IFs – FIFA and FINA – had programmes to address the public health crisis of the alarming rise in morbidity and mortality from NCDs.

This study clearly demonstrates that IFs could be more active in promoting health through physical activity, not only in their elite athlete population, but also in the community to impact global health. Learning from the examples of FIFA and FINA, promotion of physical activity through sport among the general

population can serve as a means to not only increase participation and interest, but also – and most importantly – to decrease the prevalence of NCDs.

FIFA 11 FOR HEALTH

As identified in the study of Mountjoy and Junge above, FIFA has implemented a global health programme called ‘FIFA 11 for Health’^{8,9}. The ‘FIFA 11 for Health’ programme, which commenced in 2006, combines the direct health effects of playing the game of football with education and prevention. The goal is to reduce both communicable diseases and NCDs around the world through the delivery of 11 health-based statements, predicated on a strong underpinning theoretical background, in an age- and gender-appropriate, culturally sensitive, sustainable and engaging manner. The target audience is children.

The ‘FIFA 11 for Health’ programme utilises the global interest in football to promote its message through famous football stars. The programme is of low cost to

implement and is easily adapted to national requirements. It can be implemented in different ways through NGOs, governments, at tournaments or via national football associations. The programme has been implemented so far in the continents of Africa and South America, as well as the Caribbean. Implementation commences with a pilot study, followed by a nationwide strategy including the Ministries of Health, Education and Sport and the development of a local organisation for implementation. Components of the programme include:

- A programme manual outlining the skills, content, timings and additional health information.
- A 5-day training programme for teachers/coaches.
- Laminated activity cards.
- Football equipment.
- Questionnaires and attendance record.
- Video clips featuring a star football ambassador for each of the 11 health messages.

TABLE 1

	<i>Health message</i>	<i>Football theme</i>	<i>Player coach</i>
1.	<i>Play football</i>	<i>Playing football</i>	<i>Benni McCarthy & Chicharito</i>
2.	<i>Respect girls and women</i>	<i>Passing</i>	<i>Thierry Henry</i>
3.	<i>Protect yourself from HIV and STDs</i>	<i>Heading</i>	<i>Michael Essien & Neymar</i>
4.	<i>Avoid drugs and alcohol</i>	<i>Dribbling</i>	<i>Cristiano Ronaldo</i>
5.	<i>Use treated bed nets</i>	<i>Shielding</i>	<i>Samuel Eto'o & Carlos Vela</i>
6.	<i>Wash your hands</i>	<i>Defending</i>	<i>Carles Puyol</i>
7.	<i>Drink clean water</i>	<i>Trapping</i>	<i>Portia Mordise & Natalay Gaitan</i>
8.	<i>Eat a balanced diet</i>	<i>Building fitness</i>	<i>Lionel Messi</i>
9.	<i>Vaccinate yourself and your family</i>	<i>Shooting</i>	<i>Didier Drogba</i>
10.	<i>Take your prescribed medication</i>	<i>Goalkeeping</i>	<i>Gianluigi Buffon & Sandra Sepulveda</i>
11.	<i>Fair play</i>	<i>Teamwork</i>	<i>Fabio Capello</i>

Table 1: The ‘FIFA 11 for Health’ messages and corresponding football themes.

The 11 health messages are outlined in Table 1.

The 'FIFA 11 for Health' programme has been analysed through teacher and participant feedback, as well as using questionnaires to measure children's health-related knowledge pre- and post-exposure to the intervention.

FINA SWIMMING FOR ALL – SWIMMING FOR LIFE^{10, 11}

Given that 70% of the world's surface is covered in water and that the skill of swimming is teachable, it is disturbing that death by drowning has become a significant public health problem and the leading cause of death for children after infancy. According to the WHO, up to 200,000 children die per year from drowning, with peaks noted in children under the age of 5 years. Annual mortality rates for all ages reach 370,000 deaths from drowning per year. Males are more likely to drown than females. Although drowning occurs in all countries, death by drowning is most prevalent in low-income populations of developing countries. In developed countries and in low-middle income countries, swimming lessons have been shown to decrease drowning risks.

Among all IFs, FINA is unique in that it is the only sport where learning the sport skill (i.e. swimming) can actually be life-saving, through preventing drowning. This benefit is in addition to realising the health benefits of physical activity in the reduction of the prevalence of NCDs. Given this unique role, FINA has developed the 'Swimming for All – Swimming for Life' programme, thus fulfilling its obligation and moral responsibility as a global citizen in modern-day society. While outside the normal realm of the business of elite sport that is familiar to the IF, FINA has broadened its scope to provide solutions to the serious health risks and societal costs of death by drowning and physical inactivity.

The survey results of Mountjoy and Junge (2013)⁷ discussed above, illustrate the large gap at the IF level in sport-driven programmes in addressing global health through the promotion of physical activity. FINA, through the implementation of its 'Swimming for All – Swimming for Life' programme, is leading by example through the implementation of a global health promotion project in collaboration and co-operation with its partners: the United Nations, UNESCO, the United Nations Office on Sport for Development and Peace, the

UNESCO Intergovernmental Committee for Physical Education and Sport, the WHO, UNICEF, the IOC, governments and other global NGOs.

The objective of the 'Swimming for All – Swimming for Life' programme is to offer the possibility of taking swimming lessons to individuals from all ages, backgrounds and capacities. The programme offers standard criteria and instruction to teach swimming lessons at a global scale. Implementation will focus on countries in the five continents with the highest death rates according to drowning statistics. It is planned that through partnerships with the United Nations' specialised bodies, swimming lessons will be made compulsory in official school systems globally. Government collaboration is being sought to ensure the necessary facility infrastructure, financial support, as well as programme infrastructure to ensure sustainability of the programme. FINA has created a specialised Technical Commission that developed the 'FINA Swimming for All – Swimming for Life' Technical Manual, released in 2015¹¹, which contains the step by step learn-to-swim instructions. The programme will be delivered through training clinics in countries of need and



promoted through a dedicated website and during FINA competitive events around the world. FINA has developed a FINA Learn to Swim Foundation to facilitate support of the programme through corporate sponsorship, donors and fund-raising events. To evaluate programme efficacy, FINA will embed programme monitoring and evaluation.

SUMMARY

In conclusion, participation in sport has many known physical and mental health benefits that enable people to improve their quality of life and to extend life expectancy through the reduction in the risk of NCDs. Sport has an important role to play in the current global health crisis of rising morbidity and mortality from NCDs caused by physical inactivity. Collaborative partnerships between sport and NGOs, governments, education and healthcare systems are required to effectively implement sustainable physical activity programmes to address the rising epidemic of NCDs.

The IOC is actively partnering with non-sport organisations in the field to develop strategies to promote global physical activity, especially in young people. While IFs have recognised their responsibility to protect the health of their elite athletes, they could be doing more to promote physical activity in the global population through lowering the barriers to sport participation and encouraging active participation at all levels; especially through the promotion of recreational participation across the lifespan. Sport participation can empower people to improve their levels of physical activity, thus realising both primary and secondary prevention of NCDs, the reduction of healthcare costs and an improvement in quality of life.

KEY POINTS

- Insufficient physical activity is an independent risk factor for the development of NCDs.
- Sport has the obligation to promote health in the general population by addressing the global epidemic of NCDs.
- Sport has an important role to play in the promotion of physical activity.
- Young people in particular are a

vulnerable population with alarming statistics demonstrating insufficient physical activity and subsequent health risks.

- Sport should work with non-sport organisations in a co-ordinated and collaborative partnership to promote physical activity in the general population.
- The IOC, through partnerships with the WHO and the United Nations is actively promoting physical activity through sport to address the current global health crisis of NCDs.
- IFs have an important role to play in the protection of athlete health, as well as the promotion of health in the global population.
- FIFA and FINA are two IFs who are trying to improve global health through the promotion of their sport.

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