

## HEALTH PROMOTION BY AFRICAN SWIMMING FEDERATIONS

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### ABSTRACT

*International organisations worldwide are becoming more interested in promoting health through sport. Event participation among African swimmers are increasing. However, athletes from these countries might have limited access to health prevention programmes, and medical personnel structure within their NFs and national teams. A descriptive transversal survey was conducted among the African National Swimming Federations (“African NFs”) requesting information regarding the profile of the medical personnel of the African NFs, the importance that the African NFs place on the health of their athletes, the promotion of health in their society and the programme activities/research that they engage in to promote health. The results revealed that only 34.3% of the African NFs have doctors and 21.8% have physiotherapists. For 50% the top priority is the performance of their elite athletes and for just 6.2% of the African NFs the top priority is to improve the health of the general population. Health promotion is not a top priority for African NFs. There is a need to improve their general medical services and programmes and also to establish plans and strategies to protect the health of their athletes and to promote the health of the general population.*

**Keywords:** Developing countries; FINA; Sport for All; Event participation; Sport organisations; Development policies; Medical structure.

### INTRODUCTION

In recent years the promotion of health in African countries through sport has become more common and a focus of interest by some of the international sport federations (IFs), non-governmental organisations (NGO) and the United Nations (UN) (Sadecky, 2006). Access to sport is increasingly recognised as a right. At the same time sport has become a tool for the improvement of health in African countries. The creation in 2008 of the Department of the Sport for Development and Peace within the UN is evidence of this desire to use sport as a tool to improve health. The UN Inter-Agency Task Force on Sport for Development and Peace (2005:1) defined sport, for the purposes of development, as “all forms of physical activity that contribute to physical fitness, mental well-being and social interaction, such as play, recreation, organised or competitive sport, and indigenous sports and games”.

Also of particular relevance to our study is the creation by some IFs, such as FIFA and FINA, of “Sport for All” programmes, aimed at increasing general participation (FINA, 2014). FINA in partnership with, among others, UNESCO, UNICEF, the UN and the IOC created “Swimming for All” programmes, the main goals of which are to reduce the global drowning

rate and promote a healthier lifestyle (FINA, 2014). These types of programmes are indicators of how sport has come to be regarded within a wider context in society. However, it is problematic, as yet, to measure the impact of such programmes.

The African Medical and Research Foundation (AMREF) has defined six priority areas for intervention: HIV/AIDS and tuberculosis, malaria, safe water and environmental sanitation, family health, clinical outreach, disaster management and emergency and response (African Studies Center, 2018). With such critical areas of concern to deal with, the promotion of health through sports, such as swimming, might not be the top priority in African countries. However, this is an area in which the National Swimming Federations in Africa (“African NFs”) could have a role to play. One of the aims of this study was to determine the ability and potential of the African NFs to intervene in these priority areas.

Drowning, an issue that is directly linked to the sport of swimming, is the 3rd leading cause of unintentional injury or death worldwide, accounting for 7% of all injury-related deaths (WHO, 2017). Of relevance to our study is the fact that drowning death rates are highest in the WHO African Region, and are 10-13 times higher than those seen in the United Kingdom or Germany (WHO, 2017). The South African drowning prevention initiatives are currently confined to the early stages of an effective injury prevention strategy. The distribution of mortality across age groups and drowning location differ substantially between urban centres and provinces (Saunders *et al.*, 2018).

### **Current situation at international swimming events in relation to health promotion**

The participation levels at international swimming events have increased significantly over the last 20 years. Whereas only 46 national federations participated in the first edition of the FINA Swimming World Championships (25m) in 1993, 169 national federations participated in the 12<sup>th</sup> version of the FINA Swimming World Championships (25m) in 2014, in Doha, Qatar. Of these national federations, 33 were from African countries (Adrega, 2010; FINA, 2015).

FINA through its “FINA’s Universality rule” allows athletes, even those with no standard entry times, to take part in the World Championships (FINA, 2018). This has given an incredible opportunity to athletes from African countries to participate in the events. However, not all the African NFs necessarily have the same exposure to health promotion/injury prevention before events, such as the other participating NFs. Athletes from these countries might be coming to the event with limited access to injury prevention programmes and without the back up of a developed medical personnel structure within their NFs and their national team.

The study, “Competing with injuries: Injuries prior to and during the 15<sup>th</sup> FINA World Championships 2013 (aquatics)” (Mountjoy *et al.*, 2014), highlights the importance of the protection of all the elite athletes’ health at and prior to international swimming events. It concluded that there is still room for improvement particularly in preventing illnesses and injuries and specifically a need for out-of-competition research.

### **Other studies linked to the field**

A study on injury prevention in Nigerian youth football concludes that there is a clear deficiency in the knowledge and behaviour of injury prevention among Nigerian male youth football players, and a lack of adequate medical care (Owoeye, *et al.*, 2013). They found that there is a need for injury prevention advocacy and implementation to bridge the deficiencies in youth football in Nigeria.

Although UEFA has carried out a promotion of a healthy lifestyle study to find out about the existence of policies or programmes promoting healthy lifestyle, it was conducted amongst football clubs rather than NFs (UEFA, 2014). A previous study has stressed the importance of addressing medical topics with Developing National Swimming Federations (“Developing NFs”) and reported that they have struggled in this area because they have been driven by volunteers with a minimum administrative support within the organisation (Diop & Miller, 2011). Thus, health promotion tends to rank lower on the list of priorities behind the many operation tasks to be performed.

Mountjoy and Junge (2013) reported that IFs aimed to protect the health of their elite athletes through a variety of activities and recommended that IFs should expand their mandate from protecting the health of their athletes to using their sport to improve the health of the general population. If the IF is to expand its role in this way, it will need to engage and work closely with its NF. Many Developing NFs are not yet in a position to prioritise the promotion of general health as will be seen in the results.

The current study adopted a similar methodology to that used for the study “Injury prevention strategies at the FIFA 2014 World Cup: Perceptions and practices of the physicians from 32 participating teams” (McCall *et al.*, 2015) where the physicians from 32 participating teams in the World Cup were asked to report on their injury prevention strategies. That study highlighted the importance of information sharing amongst medical personnel of National Federations.

## **PURPOSE OF THE STUDY**

The purpose of the study was to address the medical structure of African NFs and their priority activities in the area of protection of health and health promotion. To the best of our knowledge, this study is the first of its kind.

## **METHODOLOGY**

This research was a descriptive transversal study conducted by means of a confidential survey, assuring the anonymity of the respondents and respecting the applicable regulations of the EU in relation to data protection. The non-probability, purposive sample was universal and targeted all the FINA National Swimming Federations.

A detailed survey was circulated by email and also in person at the FINA Swimming World Championships 2014 (25m) / FINA Aquatics Convention in Doha (held from 29 November to 1 December) to all the African NFs. The survey was answered by the appropriate health representative or designated person of each National Swimming Federation. The survey was available in English, Spanish and French. The response rate among African NFs was 61.5% (32 of the 52 African NFs).

In the questionnaire, the NFs were asked: To confirm whether or not they had certain medical personnel within their NF and national team; To rate the importance of 11 indicated topics in relation to health promotion; To report on their programmes’ guidelines and research in relation to indicated health promotion’s topics; and to rate the importance of health promotion in their NFs.

## RESULTS

Among the most commonly found medical personnel within African NFs are doctors (34.3%) and physiotherapists (21.8%) (Table.1).

**Table 1. NUMBER OF MEDICAL PERSONNEL IN NF OR NATIONAL TEAM OF AFRICAN NFs\***

Medical personnel	n	%
Administrative staff linked to medical matters	4	12.5
Medical Doctor	11	34.3
Medical Commission or Association	9	28.1
Medical person within highest executive body	6	18.7
Nutritionist	3	9.3
Physiotherapist	7	21.8
Psychologist	3	9.3
Sport Scientist	8	25.0
No medical personnel	10	31.2

\*African NFs=32

These results could be taken as indicating that African NFs do recognise the need for certain qualified medical personnel within their NF. Psychologists and nutritionists come at the end of the ranking (9.3%) indicating that the mental health and nutrition of the athletes is, as yet, an under-developed aspect of health promotion in African NFs. Of the African NFs, 28.1% reported having a medical commission while only 18.7% have a person with a medical background on their highest executive body, leading one to question how health promotion can move forward without a voice within the NF. Of note is the fact that one third of the African NFs (31.2%) do not have any medical personnel within their NF or national team.

For 50% of the African NFs, the top performance of their elite athletes was their main priority, while for 40.6% of them a further top priority was to increase the number of elite athletes (Table.2). Of the African NFs, 31.2% ranked the health of their elite athletes as a top priority. Perhaps this result is not surprising when one considers the relatively underdeveloped medical structure within African NFs. Finally, merely 6.2% of the African NFs consider the health of the general population a priority for their federation. However, when one considers these findings in relation to the importance placed by African NFs on the health of their elite athletes, the figures for the general population are perhaps to be expected.

Increasing the number of certified officials and coaches was a top priority for 34.3% of the African NFs. While this could be attributed to the desire of the African NFs to improve performance, it is reasonable to assume that improving the education levels of coaches and increasing their technical awareness, could have beneficial effects on the health of athletes by implementation of proper training programmes and techniques. FINA could consider emphasising this potential benefit when informing African NFs of the coaching programmes it offers.

**Table 2. RATING OF IMPORTANCE OF TOPICS BY AFRICAN NFs**

<b>Topics</b>	<b>Do not know n(%)</b>	<b>Not important n(%)</b>	<b>Low importance n(%)</b>	<b>Important n(%)</b>	<b>Very important n(%)</b>	<b>Top priority n(%)</b>
Fight against doping	2(6.1%)	0	1(3.0%)	6(18.7%)	10(31.0%)	11(34.4%)
Health of recreational athletes in your sport	3(9.3%)	0	2(6.2%)	15(46.9%)	6(18.7%)	3(9.3%)
Health of general population	2(6.1%)	1(3.0%)	2(6.1%)	14(43.7%)	8(25.0%)	2(6.1%)
Health of elite athletes	1(3.0%)	0	1(3.0%)	5(15.6%)	12(37.5%)	10(31.0%)
Image as a safe sport	1(3.0%)	0	1(3.0%)	7(21.9%)	13(40.6%)	7(21.9%)
Image as enjoyable physical activity	2(6.1%)	1(3.0%)	0	11(34.4%)	9(28.1%)	6(18.7%)
Increasing certified officials/coaches	1(3.0%)	0	2(6.1%)	5(15.6%)	10(31.0%)	11(34.4%)
Increasing elite athletes	1(3.0%)	1(3.0%)	1(3.0%)	3(9.3%)	10(31.0%)	13(40.6%)
Increasing recreational athletes	1(3.0%)	2(6.1%)	5(15.6%)	11(34.4%)	8(25.0%)	3(9.3%)
Increasing spectators/fans	1(3.0%)	2(6.1%)	1(3.0%)	10(31.0%)	10(31.0%)	5(15.6%)
Top performers elite athletes	1(3.1%)	0	1(3.1%)	3(9.3%)	8(25.0%)	16(50.0%)

\*African NFs=32

**Table 3. AFRICAN NFs WITH PROGRAMMES, GUIDELINES OR RESEARCH ACTIVITIES ON INDICATED TOPICS**

<b>Topic</b>	<b>n</b>	<b>%</b>
Ambassador athletes promoting health	2	6.2
Drowning prevention/learn to swim/life guard	22	68.7
Obesity or overweight	6	18.7
Inclusion of the elderly	10	31.2
Pre-participation medical examination	8	25.0
Prevention of chronic diseases for general population	4	12.5
Return-to-play after injury	6	18.7
Injury surveillance during championships of your NF	8	25.0
Injury prevention by exercise-based programmes	5	15.6
First aid (Doctor on site)	19	59.3

\*African NFs=32

The programmes based on drowning prevention (preventing/learn to swim/life guard programmes) are by far the most prevalent of the programmes run by the African NFs (68.7%) (Table.3). The low levels of programmes around the prevention of chronic diseases in the general population, could perhaps be taken as an indicator of how the African NFs regard their role as limited in terms of promoting the health of the general population. Only 6.2% of the African NFs reported using ambassador athletes to promote health. This could be due to the relative position of the sport amongst the other sports in the country, low exposure levels and/or because the African NFs have not capitalised on the potential for ambassador athletes to deliver key messages. Only 25% of African NFs have programmes on pre-participation medical examinations.

## DISCUSSION

### Protection of health of elite athletes

Of the African NFs, 31.2% stated that the health of the elite athletes is their top priority and 50% are primarily concerned with the performance of their elite athletes. The fight against doping ranked second overall on the list of priority issues, with 34.3% reporting that it is a top priority. Nevertheless, with respect to the 28 IFs participating in the Summer Olympic Games (2016), the ‘fight against doping’ was the top priority issue followed by ‘image as a safe sport’ (Mountjoy, *et al.*, 2018).

The fact that only 25% of the African NFs reported to have pre-participation medical examinations. Just 15.6% stated they have injury prevention (by exercise) based programmes, which indicates a relatively restricted ability on the part of the African NFs in relation to prevent injury prevention. Athletes from African NFs are at a disadvantage when they attend events compared to athletes from developed countries.

In terms of post-injury programmes, 18.7% of the African NFs reported to have such programmes. This is a statistic to be of much concern considering the importance of post-injury programmes in terms of rehabilitation prospects and could contribute to bringing athletes’ swimming careers to a premature end (Podloga *et al.*, 2011). The ability of African NFs to implement pre-participation and post-injury programmes may be more restricted given that just 34.3% African NFs reported to have doctors while 21.8% have physiotherapist within their NFs or national team. The fact that 59.3% of the African NFs stated that they operate first aid programmes on-site during the events (the second highest priority issue for African NFs) suggests that African NFs prioritise the provision of emergency injury assistance over pre-participation and post-injury programmes.

### Protection of recreational athletes

The findings of the study show that the health of recreational athletes is of relatively low importance for the African NFs where it ranked 10th out of the 11 issues. Mountjoy and Junge (2013) commented that the lack of health promotion policies for recreational athletes is a missed opportunity on the part of national and international sports federations and there is a need to create policy to support and motivate national federations and IFs to address the health and welfare of non-elite athletes. The results of the current study clearly demonstrate that African NFs consider that they have more important issues to deal with than the protection of health among recreational athletes. It seems that African NFs do not focus significantly on the

category of recreational athletes. Only 9.3% listed increasing the number of recreational athletes as a top priority issue.

Of relevance to the category of recreational athletes is the issue of child protection, “safe sport”. The African NFs ranked swimming as a “safe sport” as a mid-priority issue (21.8%). However, in some cases, African NFs have taken a lead in this area. Swimming South Africa was the first of all national sports federations to introduce a child protection policy (SSA, 2015). Notably, it introduced its policy following the introduction of legislation and guidelines on this topic by the South African government (Van Niekerk, 2012; Punt *et al.*, 2015). It is suggested that such legislation and guidelines in other African countries would serve as a catalyst to encourage more African NFs to introduce corresponding child protection policies (Lang & Hartill, 2014).

### **Promotion of swimming for health in general population**

Promotion of health among the general population was ranked as the lowest priority issue for the African NFs. Of the African NFs, 12.5% have programmes or conducted research in relation to the prevention of chronic diseases in the general population.

The findings of this study show that one area where African NFs particularly are active, is the area of drowning prevention. Drowning prevention programmes are of benefit to recreational athletes and the general population. These programmes (preventing drowning, learn to swim, life guard programmes) are by far the most prevalent among the health programmes run by the African NFs (68.7%). On the one hand, this must be regarded as a progressive step by the African NFs. On the other hand, it is difficult to assess how developed and effective these programmes are/could be, since only a minimum of the African NFs took advantage of the option to attach details of these programmes when responding to this study.

As noted earlier, the African NFs do not tend to prioritise growing the number of recreational athletes. However, African NFs could leverage their drowning prevention programmes and use them not only to protect health/prevent death, but also to grow swimming participation levels in their country and potentially identify elite athletes of the future. This is a model that was implemented by the NF of the USA drowning prevention programme (USA Swimming Foundation, 2014). Its motto “Saving Lives, Building Champions” highlights the dual purpose of the programme. Given that many African NFs already have drowning prevention programmes in place, the US model is one that could potentially be incorporated into their programmes and would enable them to deliver more wide ranging benefits for the participants and for the African NFs themselves.

### **PRACTICAL APPLICATION**

The study shows that African NFs experience certain commonalities in terms of health promotion within their sport and there is a potential for them to exchange certain knowledge, experience and data with the aspiration to raise the level of health promotion/protection amongst their swimmers. Input from the African Swimming Confederation and perhaps also, FINA, would be required in order to structure and facilitate this transfer of knowledge.

Scholarship programmes are beneficial for health protection amongst swimmers since the selected athletes have access to appropriate medical staff during the period of his/her scholarship (IOC, 2017). However, while these scholarships would help the promotion of health of the individual swimmer, it will not necessarily encourage National Swimming

Federations to promote health on a wider scale. Ambassador programmes could be applied to leverage and highlight the benefits of swimming for health in the general population and to deliver certain key messages on this topic. The recipients of scholarships could be used by African NFs as health ambassadors thereby establishing a health promotion legacy.

The African NFs must be treated and supported according to their needs and in a different way than the NFs in developed countries. It is suggested that the differentiation between African NFs in relation to the promotion of health could be a matter for future studies. The International Equestrian Federation (FEI, 2016) is an example of an IF that adapts its support according to the needs of its Developing NFs through their FEI Solidarity programmes. As noted above, African NFs will also need to look to the IF for guidance and assistance if they are to play an active role in health promotion.

## CONCLUSIONS

The study shows that within African NFs there is a need to improve general medical services and programmes and to establish plans and strategies in order to protect the health of their athletes. Adopting a broader health prevention/protection programme would reap benefits for the general population and the African NFs themselves. It would contribute to grasping the priority areas identified by AMREF. The current reality is that the level of medical expertise and personnel within the African NFs is relatively low and not yet at the level required to implement broader policies.

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