

# IDENTIFYING BEST PRACTICES FOR ADVANCEMENT OF US VOLLEYBALL

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## Introduction

The sport of volleyball was invented in 1895, in Springfield, Massachusetts, and it has grown from a men's recreational sport to a global sport played by over 800 million people worldwide (Volleyball.org, 2016). Despite the fact that the sport was invented in the United States, it wasn't until recent years that it has received the type of popularity nationally that it has received globally where volleyball currently ranks just behind soccer among participation sports (Volleyball.org, 2016). In America, there are more than 46 million people playing volleyball. By 2014-15, volleyball had grown to be the top team sport for girls in the U.S. high schools surpassing basketball for the first time; junior programs have increased by 50%; and the National Collegiate Athletic Association (NCAA) added a Division III Men's National Championship while NCAA beach volleyball became a championship sport in just five years completing the fastest transition from "emerging sport" status in NCAA history (Johnson, 2015, AVCA, 2016). The American Volleyball Coaches Association (AVCA) has grown its membership of 3,200 in 2006 to over 7,000 in 2016 (AVCA, 2016). Currently, the AVCA Convention boasts the largest gathering of volleyball coaches in the world and has active partnerships with groups of coaches from around the world including Japan, Canada, Poland, and Australia (2016).

This growth of the sport could be related to recent successes of US beach volleyball teams at international competitions, particularly at Olympic Games. Beach volleyball, which started in Santa Monica, California in the 1920s, became an official Olympic event in 1996 (IOC, 2008). Since then, there has been a gold medal won by either a USA men's or a women's team at each Olympic showing (USA Volleyball, 2016). In three Olympiads both the men's and women's teams won gold, and have earned more gold than any country along with a total medal count of nine, second only to Brazil's 11 medals over the entire history of Olympic volleyball (USA Volleyball, 2016). Both the US men's and women's indoor volleyball national teams are gaining momentum but have yet to achieve the level of success of the beach volleyball teams. The US indoor women's team earned silver medals at the last two Olympics just behind gold medalist, Brazil (USA Volleyball, 2016). Most recently, the team also won gold at the 2016 North, Central America and Caribbean Volleyball Confederation (NORCECA) Championship. The men's indoor team earned gold at the 2008 Olympic Games but finished fourth in 2012 Olympics. The Paralympic sitting teams have also earned their share of medals. The US women's sitting team has medaled in every Paralympics since it was introduced in 2004, earning a bronze medal in 2004 and then silver medals in 2008 and 2012 (USA Volleyball, 2016). The US men's sitting volleyball team has yet to win a medal but has placed fourth in three straight Paralympics from 1992 to 2000 (USA Volleyball, 2016). Collectively, all of these high performance programs have created a new energy within the sport, thereby creating the impetus to advance the sport of volleyball further in this country.

The flexibility and opportunity to play the sport at any age, any level, and anywhere combined with the success of the elite, national, and collegiate teams creates an opportunity for volleyball to have an influence on the health of the nation. Promotion of the sport at the grass roots level by national governing bodies is having an impact on the growth of participation as seen by the numbers. However, more can be done by governments, businesses, and educational entities to use the sport of volleyball in order to enhance national wellbeing. This is particularly important now as majority of the US adults have become overweight and one-third are obese (CDC, 2015), and levels of inactivity have reached 28.3% among Americans age six and older (PAC, 2016). According to a recent study, a sense of urgency has been reached to prevent our youth from becoming overweight and obese as the probability of attaining normal body weight after reaching an obese status was one in 210 for men and one in 124 for women, and increasing ratio one in 1290 for men and one in 677 for women with morbid obesity (Fildes, Charlton, Rudisill, Littlejohns, Prevost & Guilford, 2015). Other nations have also used the power of volleyball to solve social problems beyond health. In Israel, for example, beach volleyball was used to reduce opposition between Jews and Palestinians (Budberg, 2005).

The ultimate aim of this study was to positively influence both public wellbeing and national success through better understanding of mass volleyball participation as led by high performance organized bodies. Through our study design it was anticipated that our results could help further expand the sport of volleyball in the US by

identifying organizational practices that could increase volleyball participation in this country while improving its international performance. Most importantly, it is hopeful that these practices will be supportive of active lifestyles and improvements in the overall health of the nation through increased participation at all levels.

### Method

To identify best volleyball management practices that could be implemented across the country and determine areas for advancement taking into account international lessons, we sought to utilize a holistic sport development model which was previously used to analyze US soccer, tennis and rugby systems (Smolianov, Zakus & Gallo, 2014) as well as US swimming (Smolianov, Dion, Benton & Sheehan, 2015), US ice hockey (MarcAurele, Smolianov & Schoen, 2016) and Dutch swimming programs (Zeeuw, Smolianov & Bohl, 2016).

Over 200 published sources were utilized to develop a globally applicable model of high performance elite sport integrated with mass participation, on which the US volleyball questionnaire was based. The model consists of the following seven elements distributed across three levels:

Micro level (operations, processes, and methodologies for development of individual athletes):

1. Talent search and development
2. Advanced athlete support

Meso level (infrastructures, personnel, and services enabling sport programs):

3. Training centers
4. Competition systems
5. Intellectual services

Macro level (socio-economic, cultural, legislative, and organizational):

6. Partnerships with supporting agencies
7. Balanced and integrated funding and structures of mass and elite sport.

This model was used in the design of a 54-statement questionnaire reflecting desired practices. Examples of the survey statements by element are:

1. In addition to children being introduced to volleyball by themselves and parents, potential volleyball players are attracted from outside the sport's participation base (e.g., by a search at schools)
2. High performance volleyball players are ranked into hierarchical levels/pools with appropriate financial and technical support
3. Training centers provide specialized facilities and equipment for each age and level of participation
4. Competitions are well structured at all levels (e.g., club/training center, regional, and national)
5. All specialists engaged in the development of volleyball players are well educated for their professional roles
6. Cooperation with agencies outside of sport industry (e.g., medical, scientific, military, philanthropic and sponsoring organizations, lotteries) is in place
7. Corporate and philanthropic tax incentives provide sufficient support of mass and elite volleyball.

The 54 statements were validated by 12 international experts, including executives from sport governing bodies, academics who have published on high performance and sport development, and volleyball coaches and administrators. The survey was emailed to 2,000 volleyball professionals listed in the USA Volleyball and the AVCA directories. These directories included coaches from across the country coaching from beginner to high performance volleyball. Fully completed online questionnaires were returned by 131 coaches from all key regions of the country for a response rate of 6.5% - similar to the rates achieved by the US soccer, tennis, rugby (Smolianov et al., 2014), swimming (Smolianov et al., 2015) and hockey (MarcAurele, et al., 2016) surveys. Additionally, seven regional and national US Volleyball administrators were interviewed on the seven elements of the model to suggest possible volleyball system improvements.

### Results and discussion

Agreeing with similar studies on other US sports (Smolianov et al., 2014; Smolianov et al., 2015; MarcAurele, et al., 2016), the survey results from US volleyball coaches and administrators indicated that there are consistent factors that appear to be hindering the improvement of volleyball in the US. Most importantly, there is lack of funding. Better funding at all levels of the game could be accomplished through government-sponsored programming at the lower socio-economic areas of the country and through improved exposure of the game. Regional and national governing bodies could provide scholarships to athletes. USA Volleyball could improve its advocacy along with the USOC to support funding at the higher levels of the game. Another major hindering factor within the sport of volleyball is the lack of coaching education, particularly at the grass roots level. Following a model similar to AVCA's coach mentoring method would be beneficial to this level of the game. As the game continues to grow in

popularity, competition should be expanded beyond the 'girl's game', following models similar to US Tennis Association (2016).

This study also revealed an important limitation, a lack of young male athletes. There are only 22 states that have high school boys' teams, as underscored by our respondents who indicated that 97% of them coached female athletes. However, the coaches did not indicate that the lack of males in the sport was an issue. It was, however, addressed by administrators, but not revealed as major point to focus upon.

It is the authors' perspective that the Volleyball community needs to be better delivered to male participants at all levels from recreational to high performance. The collaboration of and between other male sport coaches, such as men's basketball coaches and their athletes, to support the transition from playing fall or winter sports such as soccer and basketball into the volleyball season (traditionally a spring sport in high school), would assist in the attraction of the male fall and winter athletes into volleyball. Coordination, however, would need to occur between the volleyball and winter sport/basketball coaches to ensure the healthy transition from one sport to another with regards to injury prevention of the athletes and recovery from overuse injuries as both sports rely on similar athletic capabilities and physiological demands. The possible combination of coaching positions may also be an attractive opportunity for high school men's basketball coaches, especially if the high school does not currently have a men's volleyball team. Through support and educational opportunities by USA Volleyball and the AVCA, men's basketball coaches could be trained on how to coach men's volleyball, thus making the transition from basketball to volleyball more seamless while ensuring a smoother transition from sport to sport for the athletes. This would likely be a tactic to increase the number of volleyball male athletes and programs in the US. Being consistent with the world's best practice of close cooperation among coaches in sports which have similarities (Smolianov et al., 2014), volleyball programs in the Boston area have already had success transferring soccer players to volleyball and anticipate the 'crossover' skills from sports such as softball, baseball, basketball, gymnastics, and tennis to benefit and further increase volleyball participation.

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