# Adaptive Sports in the United States

This research looks into what is established regarding adaptive sports and recreation programs across the country for the disabled. People with disabilities find themselves limited in the sports arena if they are not provided with the equipment needed to adapt to their disability. The use of community resources and programs helps to make this adaption possible. These modifications allow the disabled individual the use of specialized equipment, which helps them to individually participate in the sport without allowing their disability to limit them.

> Lisa McNiven October 13th, 2015

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### Introduction

Sports is a recreation that many people enjoy in the United States. It is a physical activity that involves the multiple use of our bodies. Jumping, running, swimming and biking are examples of this. While able-bodied individuals can participate in these activities without the use of adaptive equipment, those with disabilities do not. Many people with disabilities such as visual impairments, amputations, spinal cord injury, multiple sclerosis, head injury, cerebral palsy, other neuromuscular/orthopedic conditions, autism and related intellectual disabilities are limited in the sports arena if they are not provided with the equipment needed to adapt to their disability. This is where adaptive changes factors in for the disabled individuals to be able to participate in sports that can accommodate their disabilities.

Adapting the sports arena to the needs of the disabled involves the use of community resources and programs to help make the adaption possible. Based on Disabled Sports USA out of fifty states plus Washington, DC, only 43 of them have adaptive sports programs available.<sup>1</sup> Colorado has the highest number of programs throughout the nation with 18 sites listed. Recent research shows New Mexico as the 2<sup>nd</sup> highest with 14 programs identified. This is followed by California with 8 sites and New York at 7. Unfortunately not every state is providing the disabled with the sports accommodation they need. The following states do not offer any adaptive sports programs: Delaware, Hawaii, Kentucky, Louisiana, Mississippi, Nebraska, Nevada, and North Dakota.<sup>2</sup>

# **Description of Adaptive Sports and Recreation Programs**

Adaptive sports and recreation refers to "any modification of a given sport or recreation activity to accommodate the varying ability levels of an individual with a disability."<sup>3</sup> These modifications allow the disabled individual the use of specialized equipment, which helps them to individually participate in the sport without allowing their disability to limit them. These adaptive and recreational programs include a wide range of categories:

• Indoor and outdoor

<sup>&</sup>lt;sup>1</sup> Disabled Sports USA, Chapters. (n.d.). Retrieved November 1, 2014, from <u>http://www.disabledsportsusa.org/chapters/</u>

<sup>&</sup>lt;sup>2</sup> Disabled Sports USA, Chapters. (n.d.). Retrieved November 1, 2014, from <u>http://www.disabledsportsusa.org/chapters/</u>

<sup>&</sup>lt;sup>3</sup> Lundberg, N., Taniguchi, S., McCormick, B., & Tibbs, C. (2011). Identity Negotiating: Redefining Stigmatized Identities through Adaptive Sports and Recreation Participation among Individuals with a Disability. *Journal of Leisure Research, 43*(2), 206.

- Cold weather and warm weather
- Team and individuals
- Inclusive and disability-specific
- For children, adults, and families
- For people with physical, intellectual, and/or emotional disabilities
- Competitive and leisure



These activities may come from either community-based services or as a therapeutic service associated with hospitals or rehabilitation services. Independent operated agencies may also provide these services within the community, if they are available. The use of these services allows the disabled individual to "improve the quality of life, health, confidence and community integration."<sup>4</sup>

# Adaptive and Accessible Sports and Recreation Programs

Adaptive and accessible programs give children and adults with disabilities the opportunity to participate in mainstream activities; to gain self-confidence, and to develop physical abilities and social skills. Any sport in the mainstream can be adapted to the needs of the disabled individual. Examples of these sports are: alpine skiing, archery, boccia, curling, cycling, equestrian, fencing,

<sup>&</sup>lt;sup>4</sup> Lundberg, N., Taniguchi, S., McCormick, B., & Tibbs, C. (2011). Identity Negotiating: Redefining Stigmatized Identities through Adaptive Sports and Recreation Participation among Individuals with a Disability. *Journal of Leisure Research*, *43*(2), 207.

goalball, judo, nordic skiing, paratriathlon, rowing, sailing, shooting, volleyball, hockey, snowboarding, soccer, swimming, table tennis and track and field to name a few. The Center for Disease Control (CDC) states that one in two people with disabilities are physically inactive.<sup>5</sup> To become more physically active it is necessary to have adaptive and accessible sports and recreation programs available in your local community. This is a good way to reduce the statistics stated by the CDC.

Established programs for community-based adaptive services can be found under Disabled Sports USA organizational chapters in the United States. This organization provides a network of services that allows people from all over the United States, in a wide range of disabilities, to participate in various types of sports and recreation. These services involve providing adaptive sports and recreational programs for both indoor and outdoor as well as summer and winter activities. This also includes recreational activities for water sports and fitness programs to accommodate the disabled. The following map shows where all the adaptive programs are located throughout the country. A few states have no data at this time. A zero was written in those states indicating no programs have been found.



<sup>&</sup>lt;sup>5</sup> Diament, M. (2014, May 7). CDC: 1 in 2 with Disabilities Physically Inactive. Retrieved November 1, 2014, from <a href="http://www.disabilityscoop.com/2014/05/07/cdc-physically-inactive/19343/">http://www.disabilityscoop.com/2014/05/07/cdc-physically-inactive/19343/</a>

### **Overview of Disabled Sports and Recreational programs**

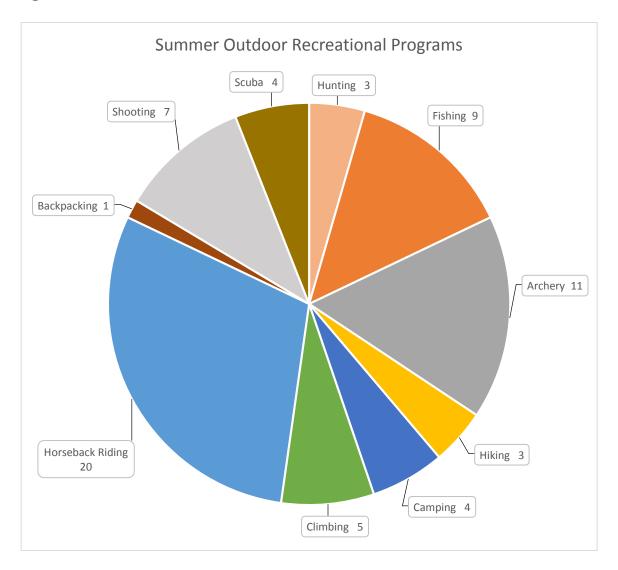
Figure 1: Snapshot of Adaptive Sports and Recreational Programs



Note: More programs across the country will need to be identified before the configuration of the numbers on this map will change. There are five "Clubs" or "Training Programs" that were identified and were not included in this paper. It will remain this way until further review to conclusively decide whether it is appropriate to include them.

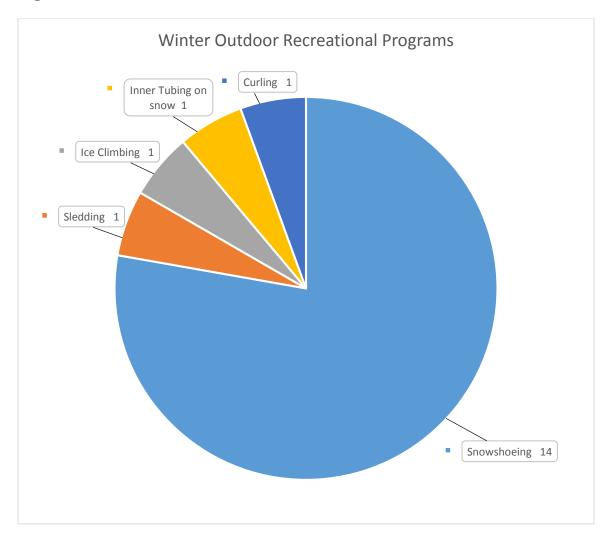
The following graphs specify the various types of sports that have been adapted to accommodate the disabled. These numbers are in accordance with the number of states that have adapted them within the organizational chapters of Disabled Sports USA.

#### Figure 2:



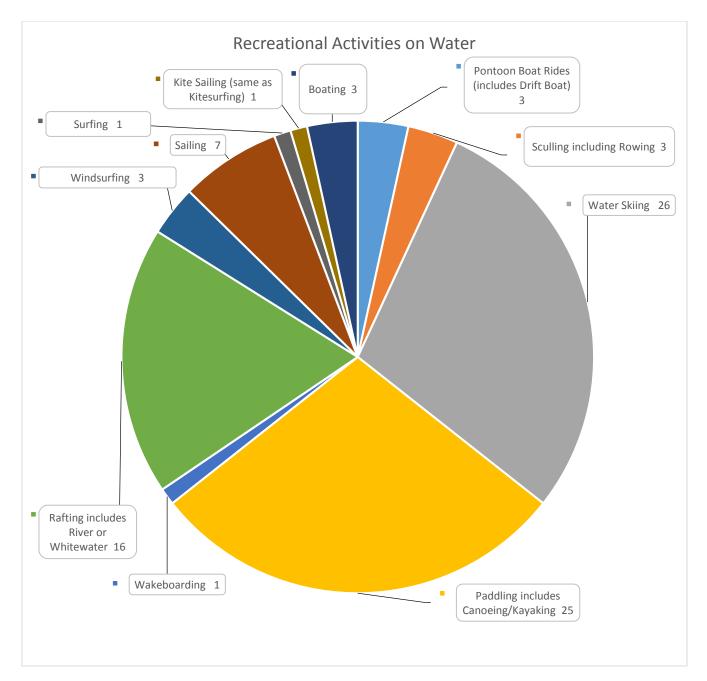
Summer Outdoor Recreational Programs include; hunting, climbing, fishing, horseback riding, archery, hiking, scuba diving, and camping. These activities are considered recreational in terms of enjoying the outdoors and having leisure opportunities to fully engage in nature. The largest recreational program is the provision of horseback riding, while the lowest is backpacking. This involves back trail hiking and possibly camping in national or state forest grounds. Opportunities during the summer in the outdoors is not as prevalent as being outdoors in winter sports.

#### Figure 3:



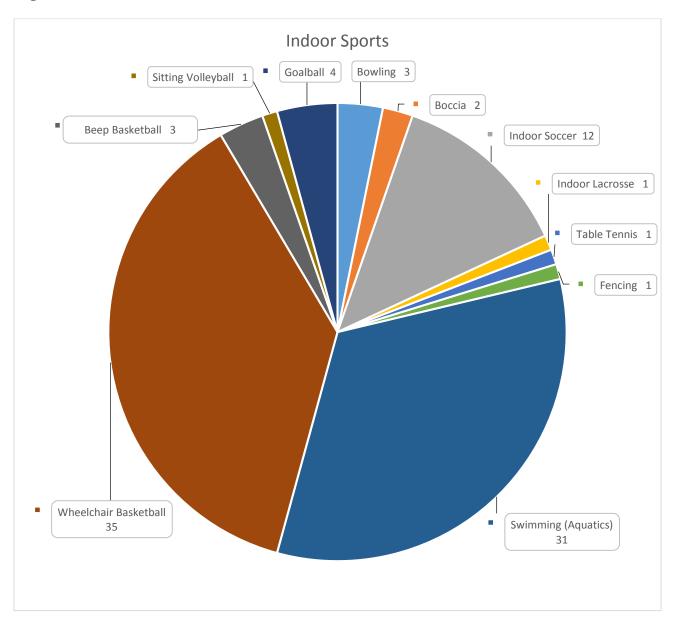
Outdoor recreational opportunities during the winter season reflect snowshoeing as providing the highest number of programs, with the remaining programs of being equal in numbers. The programs such as sledding, ice climbing, curling and inner tubing on snow are rare, with only 1 program each in states offering these adaptive programs. Adaptive Sports Programs in the winter has a higher concentration of programs than both the summer and winter outdoor Recreational Programs combined.

#### Figure 4:



There are many opportunities to become involved in recreational activities that take place in the water, whether on rivers, ponds, lakes and/or oceans. This category involves the use of recreational vehicles and/or boards that one must either self-propel or propel with the use of an engine. The highest concentration of activities are virtually equal between water skiing and paddling, either with a canoe or kayaking. This is 51% of all water activities.

Figure 5:



Indoor sports can be considered winter or summer sports, primarily using a basketball court for boccia, beep basketball, sitting volleyball, indoor soccer, indoor lacrosse, wheelchair basketball and goalball. The other sports, fencing and table tennis, can use any facility as long as it has room for both spectators and players to watch or play the sport. Bowling and swimming have their own separate facilities to accommodate the specific needs of the sport in which specific adaptive needs will be added, as needed. Boccia is a game originally designed specifically for individuals with cerebral palsy but now includes individuals with other severe disabilities affecting motor skills. Whereas beep basketball and goalball are designed primarily for individuals who are blind and/or have visual impairments in which all players are required to use coverings over their eyes as the use of any sight is not permitted.

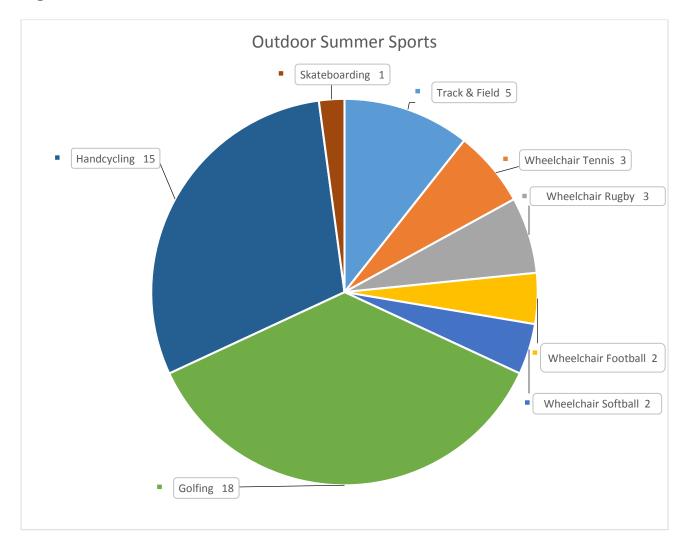
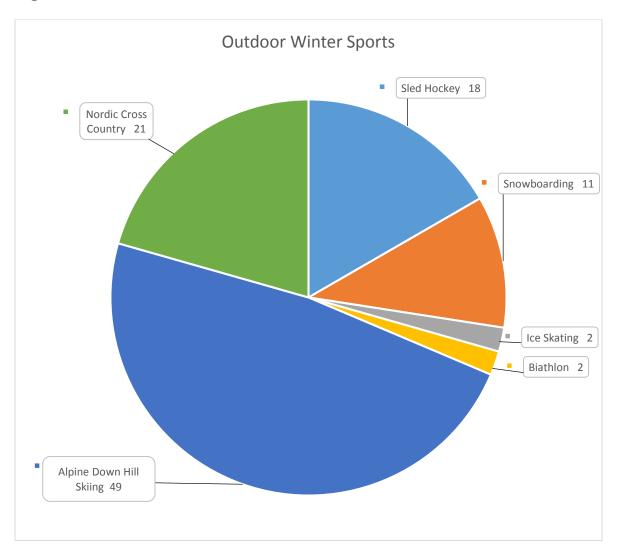


Figure 6:

The highest concentration in outdoor summer sports is golfing, followed by wheelchair softball. These games are enjoyed primarily by individuals with physical disabilities, especially if the game is termed wheelchair softball, wheelchair rugby or wheelchair football for obvious reasons. The lowest concentration of programs nationally for outdoor summer sports is in skateboarding, with wheelchair softball and wheelchair football following close behind at two each. Wheelchair football is a new sport that is quickly becoming popular as indicated in literature. Therefore, this trend may go upward in numbers, making it necessary to update this paper in the future. Figure 7:



Outdoor winter sports have the highest concentration of programs, with alpine downhill skiing at 49 and nordic cross country following close behind at 21. The reason may be that these programs were nationally established early in the disability civil rights movement nationally, and therefore have gained traction and established a foothold over the other areas such as outdoor summer sports, outdoor summer recreational programs, outdoor winter recreational programs, outdoor recreational activities on water, and fitness programs. The 49 programs for downhill skiing and 21 programs for cross country skiing have the highest concentration of those two programs in Colorado with California coming close behind. The adaptive equipment for downhill skiing can be provided either with the mono-ski (one ski with a sit-down bucket or seat on top), tandem-ski (on two skis with chair on top in which an assistant controls where the tandem-ski goes), or the kartski or bi-unique skis which are similar to the tandem-ski but have different styles wherein the individual will have more control in the use of these pieces of equipment. Nationally, the two programs offering the least are: biathlon (combined cross country skiing and shooting) and ice skating.

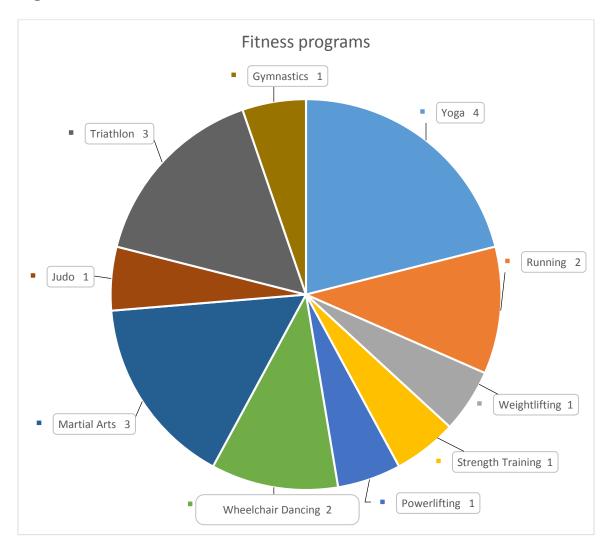
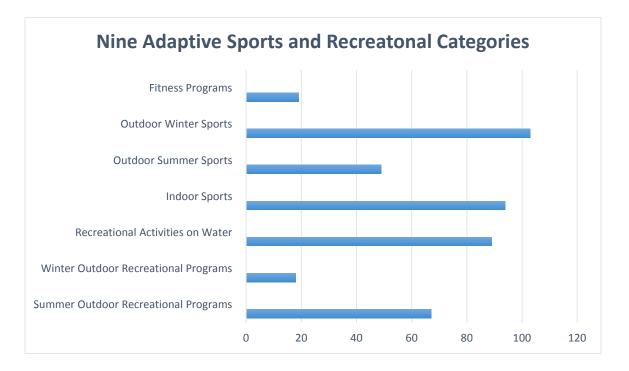


Figure 8:

The highest number of programs nationally is yoga, with the lowest being equal among five different programs: gymnastics, powerlifting, strength training, weightlifting and judo.

Figure 9:



There are 7 areas explored in terms of all the adaptive recreational and sports programs nationally whether they were indoor, outdoor, summer, or winter sports and sports that take place only on water. There are a total of 439 programs explored nationally through the Disabled Sports USA Program. Out of the 439 programs, the highest concentration of programs was in the area of outdoor winter sports with 103 offered. The lowest was the winter outdoor recreational programs at 18, with the fitness programs being a close second. Adaptive Sports and Recreational Programs are alive and well in the United States, including Alaska.



# Conclusion

All across the country, people with disabilities are now able to participate in a variety of sports like their able-bodied counterparts. Their abilities are accommodated through specialized equipment that is adapted to their specific disability. These types of disabilities include those with visual impairments, amputations, spinal cord injury, multiple sclerosis, head injury, cerebral palsy, other neuromuscular/orthopedic conditions, autism and related intellectual disabilities.

Adaptive and Accessible Programs allow the disabled the opportunity to participate in the sports and recreation programs of their choice. These programs meet a wide range of sport and recreational activities that includes indoor and outdoor recreation; weather specific sports; team and individual activities; activities for children, adults and families; activities that fit in with the needs of people with physical, intellectual and/or emotional disabilities and those for competitive and leisure use. The programs work to accommodate the type of disability to the specialized equipment needed to participate in the sport.

The Disabled Sports USA organization lists chapters throughout the United States, with the exception of seven states. These chapters provide a network of services that allow people of all ranges of disabilities to participate in the type of sport that works well with their disability. Disabled Sports USA's goal is to provide these individuals with the opportunity to develop independence, confidence and fitness through participation in adaptive sports. Many of these sports are mainstream sports such as: swimming, rowing, sailing, volleyball, hockey, snowboarding, soccer, table tennis and track, to name a few.

Finally, Adaptive Sports and Recreational Programs have opened the doors of opportunity for the many disabled people who once thought that active sports is an area they could have no access to. Instead, it presents the individual with a disability the opportunity to participate in sports and recreation that they love and enjoy.

### References

Disabled Sports USA; Chapters. (n.d.). Retrieved November 1, 2014, from <a href="http://www.disabledsportsusa.org/chapters/">http://www.disabledsportsusa.org/chapters/</a>

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