

National Wrestling Coaches Association “NWCA Optimal Performance Calculator” By Mike Moyer, Executive Director – May 23, 2007

Background: The NWCA (nonprofit established in 1928) was thrust into the national spotlight in 1997 when three college wrestlers were tragically killed while engaged in extreme weight loss activities. Even prior to the accidents, excessive weight loss plagued wrestling for many decades.

Immediately following the accidents, the NWCA collaborated with renowned sport scientists to develop a nationally mandated weight management program that would safeguard wrestlers from future weight loss related accidents. As a result, all wrestlers are now required to undergo pre-season assessments for body composition, hydration, and weight. The raw data from these assessments is entered into the online *NWCA Optimal Performance Calculator – OPC* so an ideal competition weight and safe weight loss/gain plan can be established. In addition, the athletes are assigned to daily nutrient goals (fats, carbohydrates, protein, calories) based on their weight loss/gain plan. They can access an integrated menu of food options for the purposes of developing a customized diet.

To date, all collegiate governing bodies (i.e. NCAA, NAIA, NJCAA, California Community Colleges) and thirty five state high school athletic associations license the OPC to administrate their respective wrestling weight management programs (over 240,000 student-wrestlers participate annually).

The NCAA Medical Advisory Committee has conducted several peer reviewed, published research studies to demonstrate the success of this weight management initiative. All indications appear to support the notion that scholastic and collegiate wrestlers are among the healthiest athletes in the nation. Through this journey, the NWCA has emerged as a national leader in promoting healthy weight management/nutrition to young kids.

Migration to “All Sports” Community: In 2003, several state high school athletic associations suggested that we modify the OPC to accommodate the unique needs of all sports. For example, in sports like women’s gymnastics and cross country, a high incidence of eating disorders exists so a weight/body fat gain program is necessary. In football, it is evident that some players are obese and occasionally have died to heat related illness (and dehydration related disorders). The NWCA responded to this obvious need by modifying the OPC to accommodate these broader markets. Many of the state associations across the nation are now promoting the new OPC functionality to their participating schools. This market includes over 7 million scholastic boys and girls.

Opportunity to Serve the Physical Education Community: Many state high school athletic associations are closely aligned with their respective state departments of education. Several of the state high school athletic associations are currently introducing the NWCA to their respective state departments of education for the purposes of using our tool to diagnose and combat childhood obesity in the general student population (k-12).

In September 2006, the NWCA received a \$250,000 government grant to modify the OPC for specific use in the physical education and adult diet/fitness communities. All modifications have since been completed and the tool is now ready to be introduced to these expanded communities. Renowned researchers, Dr. Alan Utter and Dr. Dave Nieman at Appalachian State University are currently conducting a fitness-nutrition intervention research study on middle school students in Pennsylvania to demonstrate the effective of the OPC in the non-athletic market. The NWCA intends to ask state departments of education to include the OPC in their physical education curriculums as a way to combat childhood obesity.

Further increasing the likelihood of our success with this initiative are the following factors:

- The United States Department of Agriculture is using the NWCA as a centerpiece to launch their national "Eat Smart, Play Hard" campaign aimed at curbing childhood obesity.
- The NWCA is partnered with the Iowa Department of Education and USDA to participate in a statewide fitness/nutrition campaign in 2006/07.
- The OPC is already in most schools in 37 states (for wrestling wt. mngt. purposes) so it will be relatively seamless to introduce the modified program to physical teachers (in many instances, our coaches are the PE teachers).
- A growing number of states already require body mass indexing for all students, K-12th grade.

The primary goal of the NWCA is to position wrestlers (and athletes in general) to be the ultimate role models for promoting fitness and nutrition in schools across America. Our association with national governing bodies such as the NCAA, National Federation of State High School Associations, the National Athletic Trainers Association, the United States Department of Agriculture, and Action of Healthy Kids lends considerable credibility for our association in the sport science area of competition performance.

For more information, please contact Mike Moyer at the NWCA office at 717-653-8009.