

# 2006 Steroids Report



Prepared by  
the Steroids Working Group  
United States Sentencing Commission

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## REPORT OF THE STEROIDS POLICY TEAM

### I. SUMMARY

Congress passed the Anabolic Steroid Control Act of 2004 (the Act)<sup>1</sup> to “address the abuse of steroids by athletes and, especially, by youngsters and teenagers.”<sup>2</sup> The Act directed the United States Sentencing Commission (the “Commission” or “USSC”) to:

- (1) review the federal sentencing guidelines with respect to anabolic steroids;
- (2) consider amending the federal sentencing guidelines to provide for increased penalties with respect to offenses involving anabolic steroids in a manner that reflects the seriousness of such offenses and the need to deter anabolic steroid trafficking and abuse; and
- (3) take such other action that the Commission considers necessary to carry out this section.<sup>3</sup>

The Commission added consideration of steroids offenses to its list of priorities for its 2004-2005 amendment cycle, in recognition of the serious concern over these offenses and the need to fulfill the congressional directive contained in the Act.

This report sets forth legislative and guideline history pertaining to steroids offenses, discusses the Commission’s response to legislation, and updates the findings in the Commission’s 1990 Steroids Report.

### II. BACKGROUND ON STEROIDS AND CURRENT PENALTY STRUCTURE

Steroids is a broad term used to describe a variety of individual drugs that are delivered to end users primarily in two major forms: injectable liquid held in vials and pills.<sup>4</sup> Steroids are typically used in various combinations with a user often combining four or five different types of

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<sup>1</sup> Anabolic Steroid Control Act of 2004, Pub. L. No. 108-358, 118 Stat. 1661 (2004).

<sup>2</sup> 150 Cong. Rec. S10608 (daily ed. Oct. 6, 2004) (statement of Sen. Joseph Biden).

<sup>3</sup> Pub. L. No. 108-358 § 3 (2004).

<sup>4</sup> USSC Drug Working Group (the Group), Proposed Amendment for Steroids, pg. 6 (the 1990 Steroids Report) (Nov. 20, 1990) (On file with the USSC.)

steroids.<sup>5</sup> These drugs are not all equally potent.<sup>6</sup> A user manipulates the overall potency of a combination of steroids to create a cycle.<sup>7</sup> Typically, usage cycles are of six, eight, or twelve weeks' duration and vacillate at least once between high and low doses.<sup>8</sup>

The National Institute on Drug Abuse's (NIDA) Research Report on Anabolic Steroid Abuse (April 2000)<sup>9</sup> indicates that anabolic androgenic steroids (AAS) (referred to simply as anabolic steroids or steroids in this report) are synthetic forms of male sex hormones which exhibit effects on skeletal muscle growth (anabolic effects) and male sexual characteristics (androgenic effects). These steroids were developed in the 1930s and are used medically to treat delayed puberty, some forms of impotence, and wasting disorders like those associated with HIV infection and other diseases. Illicit users typically use 10 to 100 times the therapeutic dose levels, "stacking" multiple types of AAS in a "cycle" of 6 to 12 weeks, with dosage levels following a "pyramid" form.<sup>10</sup>

Anabolic steroids are a Schedule III controlled substance under 21 U.S.C. § 812. Under 21 U.S.C. § 841(b)(1)(D), any person who knowingly or intentionally trafficks in, or possesses with intent to traffick in, a Schedule III controlled substance shall be sentenced to a term of imprisonment of not more than 5 years' imprisonment, or if the person committed the offense after a prior conviction for a felony drug offense has become final, not more than 10 years' imprisonment. The statutory maximum may double if the person distributes the drug to persons

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<sup>5</sup> *Id.*

<sup>6</sup> *Id.*

<sup>7</sup> *Id.*

<sup>8</sup> *Id.*

<sup>9</sup> The National Institute on Drug Abuse, NIH Pub. No. 00-3721, *Anabolic Steroid Abuse* (April 2000). For similar information, see Kirk J. Brower, *Anabolic Steroid Abuse and Dependence*, 4 *Current Psychiatry Reports*, 377-387 (2002); and H. G. Pope & D. L. Katz, *Psychiatric Effects of Exogenous Anabolic-Androgenic Steroids in Psychoneuroendocrinology: the scientific basis of clinical practice* (O. M. Wolkowitz & A. L. Rothschild, eds.) American Psychiatric Pub. (2003).

<sup>10</sup> Multiple types of steroids are stacked to achieve 10 to 100 times the therapeutic dose. Stacking refers to the practice of taking two or more different steroids, often mixing oral and/or injectables, during a cycle. See NIDA, *supra* note 9. The resulting supraphysiologic dosage distinguishes this pattern of use from therapeutic usage. Users in a pyramid cycle will, typically, gradually increase then decrease their dosage during the duration of the cycle and then have a steroid free period. Tapering off the steroids is thought to reduce side effects and withdrawal symptoms. R. C. W. Hall & R. C. W. Hall, *Abuse of Supraphysiologic Doses of Anabolic Steroids*, 98 *Southern Medical Assoc.* 5 (2005).

under the age of 21, or distributes or manufactures the drug in or near schools and colleges. Schedule III offenses are sentenced under USSG §2D1.1 with base offense levels between level 6 and level 20.

While the severity of punishment for most drugs offenses sentenced under §2D1.1 is determined primarily based upon the weight of the drugs involved in the offense, certain other substances, including those in Schedule III, are determined by the number of “units” involved in the offense.<sup>11</sup> Generally, a “unit” is defined as one pill, capsule or tablet. If the substance (except gamma-hydroxybutyric acid, or GHB) is in liquid form, one “unit” means 0.5 ml. In cases involving anabolic steroids, however, a unit is defined to mean 50 tablets or, if in injectable form, a unit means 10 ml. As a result, more steroids are required to achieve sentences comparable to other Schedule III substances. That is, if in pill form, 50 times more steroid pills are needed to produce a penalty equal to other Schedule III pills and if in liquid form, 20 times the volume of liquid is required to produce the equivalent penalty of other Schedule III liquid substances.

### **III. LEGISLATIVE AND GUIDELINE HISTORY**

Steroid abuse has long been a focus of congressional interest, prompting legislative action and directives for Commission response, as detailed in this section. Congressional concern is not just about steroid misuse by major league sports professionals but also the trickle-down effects that such use has on amateur athletes, notably teenagers. Another congressional concern that has emerged recently is the availability of steroids (and other performance enhancing substances) for purchase over the Internet.

#### **A. Steroid Legislation Before the 1990 Act**

##### **1. Anti-Drug Abuse Act of 1988**

The first major steroid legislation, the Anti-Drug Abuse Act of 1988, changed the penalty for illegal distribution of steroids from a misdemeanor to a felony.<sup>12</sup> Before the 1988 Act, federal law regulated steroids as prescriptive drugs under the Food, Drug, and Cosmetic Act, which proscribed the unauthorized selling of steroids as “misbranding,” a misdemeanor.<sup>13</sup>

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<sup>11</sup> In addition to Schedule III substances (with the exception of GHB, which has a separate marijuana equivalency), penalties for offenses involving Schedule I or II depressants, and Schedules IV and V substances, are also based upon the number of units involved in the offense.

<sup>12</sup> Anti-Drug Abuse Act of 1988, Pub. L. No. 100-690, 102 Stat. 4181 (amended 1990).

<sup>13</sup> 21 U.S.C. § 333 (1994).

On September 22, 1988, Representative William Hughes introduced an amendment to H.R. 5210, the Omnibus Drug Initiative Act of 1988.<sup>14</sup> The amendment proposed making the distribution of steroids a felony punishable by up to three years of imprisonment.<sup>15</sup> Introducing the amendment, Rep. Hughes described “disturbing” evidence of steroid use among high school students.<sup>16</sup> Echoing Rep. Hughes’ concerns, Representatives Baker and Lungren denounced the use of steroids in high school and college athletics, and noted that the amendment signaled the beginning of greater congressional involvement in the regulation of steroids.<sup>17</sup>

After the House passed the Drug Initiative Act, the full Senate considered the bill, and added numerous amendments. Senator Joseph Biden’s amendment proposed criminalizing the distribution of steroids, similar to Rep. Hughes amendment, but contained a provision that doubled the three year maximum if the offense involved a minor, and also called for a General Accounting Office study on the use of anabolic steroids.<sup>18</sup> Discussing his bill, Sen. Biden expressed concerns about the use of steroids among young athletes, and stated that the amendment “was only a beginning in our efforts to control steroid abuse.”<sup>19</sup>

Sen. Biden’s amendment passed the Senate, and the House adopted the Senate’s amended version on October 20, 1988. The Senate made further amendments, and the bill finally emerged from Congress under the title “The Anti-Drug Abuse Act of 1988,” which the President signed into law on November 18, 1988.<sup>20</sup>

The Anti-Drug Abuse Act added a new subsection to the federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 333(e). While the law did not criminalize merely possessing steroids, it did outlaw possession accompanied with intent to distribute. Subsection (e) allowed a sentence of up to three years for trafficking steroids, which doubled to six years if the offense involved a minor under the age of 18 years. 21 U.S.C. § 333(e) remained effective for two years before the Anabolic Steroid Control Act of 1990 modified the subsection in its entirety, as discussed more fully in Section B.<sup>21</sup>

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<sup>14</sup> The Omnibus Drug Initiative Act of 1988, H.R. 5210, 100th Cong. (1988).

<sup>15</sup> 134 Cong. Rec. H7906 (daily ed. Sept. 22, 1988) (statement of Rep. Hughes).

<sup>16</sup> *Id.*

<sup>17</sup> *Id.* at H7907 (statements of Reps. Baker and Lungren).

<sup>18</sup> 134 Cong. Rec. S16186 (daily ed. Oct. 12, 1988).

<sup>19</sup> 134 Cong. Rec. S17337 (daily ed. Oct. 18, 1988) (statement of Sen. Biden).

<sup>20</sup> Pub. L. No. 100-690.

<sup>21</sup> Anabolic Steroid Control Act of 1990, Pub. L. No. 101-647, §§ 1901-1907, 104 Stat. 4852, 4858, 4932 (1990).

## 2. **Anabolic Steroid Restriction Act of 1989: H.R. 995/S. 466 (Proposed)**

The use and distribution of anabolic steroids was the subject of pending bills in both houses of the 101st Congress. Proposed legislation, the Anabolic Steroid Restriction Act of 1989, first addressed the distribution and availability of steroids through the mail.<sup>22</sup> In March, 1989, the House Committee on the Judiciary's Subcommittee on Crime conducted a hearing that examined the Anabolic Steroid Restriction Act, and the use and effects of anabolic steroids by athletes.<sup>23</sup> A diverse group testified: a medical professor, postal inspector, high school principal, and an athlete, Carl Lewis, who months later would win the gold medal in the 100 meter dash at the Olympics following the disqualification of the race's winner, Ben Johnson, after he tested positive for steroids. The Subcommittee's hearing, however, ended legislative action in the House on the Anabolic Steroid Restriction Act. In the Senate, Sen. Biden introduced a companion bill, but the proposed legislation never made it out of committee.<sup>24</sup>

## 3. **Steroid Trafficking Act of 1989/1990: S. 1829 (Proposed)**

A month after the House's hearing on the Anabolic Steroid Restriction Act, the Senate Committee on the Judiciary conducted a hearing entitled "Steroids in Amateur and Professional Sports: The Medical and Social Costs of Steroid Abuse."<sup>25</sup> The Committee convened twice, once in Newark, New Jersey, in April 1989, and again on Capitol Hill a month later. Almost twenty individuals testified. Professional sports team trainers; current and former professional football players; National Football League (NFL) coaches, including Marty Schottenheimer, head coach of the Kansas City Chiefs and Chuck Noll, head coach of the Pittsburgh Steelers; college football coaches, including Joe Paterno, head coach of Penn State University and Bo Schemberchler, head coach of the University of Michigan; and the Commissioner of the NFL appeared before the Committee.

In this hearing witnesses testified about rampant use of steroids in the NFL, which became the first professional sports league to conduct steroid testing.<sup>26</sup> Sen. Biden (then-chairman of the Judiciary Committee) stated during the hearing that he was considering

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<sup>22</sup> Anabolic Steroid Restriction Act of 1989, H.R. 995, 101st Cong. (1989).

<sup>23</sup> *Anabolic Steroid Restriction Act of 1989: Hearing Before the House Comm. on the Judiciary*, 101st Cong. (1989).

<sup>24</sup> S. 466, 101st Cong. (1989).

<sup>25</sup> *Steroids in Amateur and Professional Sports: The Medical and Social Costs of Steroid Abuse: Hearing Before the Sen. Comm. on the Judiciary*, 101st Cong. (1989).

<sup>26</sup> The Major League Baseball hearings undertaken by Congress during the first session of the 108th Congress mirrored the hearings into steroids abuse in the NFL.

proposing legislation to make steroids a controlled substance, thus making possession a criminal offense.<sup>27</sup>

Sen. Biden subsequently introduced S. 1829, “The Steroid Trafficking Act of 1989,” on November 1, 1989.<sup>28</sup> The legislation defined anabolic steroids and proposed amending a section of the Controlled Substances Act, to add steroids as a Schedule II substance.<sup>29</sup>

In a floor statement introducing the legislation, Sen. Biden described steroids as both dangerous and addictive, presenting the same threats to society as other “hard drugs.”<sup>30</sup> His bill, he argued, prevented illegal steroid use in three ways: (1) it sharply increased the penalties for trafficking steroids to the same level as for trafficking cocaine and heroin; (2) it transferred investigatory and regulatory powers from the Food and Drug Administration (FDA) to the Drug Enforcement Administration (DEA); and (3) it required U.S. agencies to include steroids in general drug prevention and treatment programs.<sup>31</sup>

Additionally, the Steroid Trafficking Act of 1989 proposed amending part of the Food, Drug, and Cosmetic Act, 21 U.S.C. § 333, by modifying subsection (e), which had been added by the Anti-Drug Abuse Act of 1988 and made the possession with intent to distribute anabolic steroids a felony.<sup>32</sup> The modified subsection (e) also would have made possession with the intent to distribute Human Growth Hormone (HGH) a felony punishable by a sentence of up to five years. That maximum doubled if the offense involved a minor.

The Senate Committee on the Judiciary reported S. 1829 favorably.<sup>33</sup> In its report, the Committee explained its decision to designate steroids as a Schedule II substance. The Controlled Substances Act establishes a three part test for classification under Schedule II: (1) the drug or other substance has a high potential for abuse; (2) the drug or other substance has a currently accepted medical use in treatment in the United States or a currently accepted medical

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<sup>27</sup> Christine Brennan, *Senate Panel Told of Steroid Use in NFL*, The Washington Post, May 10, 1989, at B1.

<sup>28</sup> The Steroid Trafficking Act of 1989, S. 1829, 101st Cong. (1989). When Congress considered the bill in 1990, it became the Steroid Trafficking Act of 1990.

<sup>29</sup> *Id.*

<sup>30</sup> 135 Cong. Rec. S14523 (daily ed. Nov. 1, 1989) (statement of Sen. Biden).

<sup>31</sup> *Id.*

<sup>32</sup> Pub. L. No. 100-690.

<sup>33</sup> S. Rep. No. 101-433 at 10 (1990).

use with severe restrictions; and (3) abuse of the drug or other substance may lead to severe psychological and physical dependence.<sup>34</sup>

The Committee found that anabolic steroids satisfied this test.<sup>35</sup> First, the estimated one million illegal steroid users, half of them high school students, indicated a high potential for abuse of steroids.<sup>36</sup> Second, the Committee concluded that steroids treat medical conditions, satisfying the second part of the test.<sup>37</sup> Third, the Committee noted that many medical and public health experts concluded that steroids can lead to psychological addiction, and a small number of studies indicated that steroid abuse leads to physical dependence.<sup>38</sup> Ultimately, the Committee concluded that steroids possessed the same abuse potential as cocaine hydrochloride, and should be regulated under the tight controls of Schedule II.<sup>39</sup>

On October 24, 1990, in a floor statement made before the Senate voted on S. 1829, Sen. Biden decried the ability of the FDA to effectively control illegal steroid trafficking.<sup>40</sup> He noted four major deficiencies in the FDA's regulation of the steroids: 1) a third of illegal steroids were diverted to the black market from legal U.S. drug manufacturers; 2) the FDA had inadequate personnel to police a \$300 to \$400 million illicit trade; 3) those personnel lacked the authority and expertise effectively to combat illicit drug trafficking; and 4) the FDA lacked a reliable accounting system to track the production of steroids, and monitor what percentage of the drugs end up on the black market.<sup>41</sup> The Senate passed S. 1829 on that day by voice vote, and the bill was referred to the House, where it died in committee.

#### 4. H.R. 3421 (*Proposed*)

While the Senate passed Sen. Biden's legislation designating anabolic steroids as a Schedule II substance, the first steroid bill proposed in the House during the 101st Congress, H.R. 3421, introduced by Representative Mel Levine on October 20, 1989, also designated

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<sup>34</sup> 21 U.S.C. § 812(c) (1994).

<sup>35</sup> S. Rep. No. 101-433 at 12 (1990).

<sup>36</sup> *Id.*

<sup>37</sup> *Id.*

<sup>38</sup> *Id.*

<sup>39</sup> *Id.*

<sup>40</sup> 136 Cong. Rec. S16616 (daily ed. Oct. 24, 1990) (statement of Sen. Biden).

<sup>41</sup> *Id.*



anabolic steroids as a Schedule II substance.<sup>42</sup> The proposed legislation, however, never made it out of committee.

## **B. The Anabolic Steroid Control Act of 1990**

### **1. House Version (H.R. 4658/5269)**

In 1990, the House took the lead in trying to overcome the stalled progress of steroid legislation by considering legislation designating steroids as Schedule III substances, not Schedule II.

On March 22, 1990, the Subcommittee on Crime of the House Committee on the Judiciary held a hearing entitled “Abuse of Steroids in Amateur and Professional Athletics.”<sup>43</sup> In the first of two hearings on steroids by the Subcommittee, the March hearing gathered testimony from an array of medical professionals and amateur and professional athletic figures. Much of the testimony addressed the use and testing of steroids in the NFL and National Collegiate Athletic Association (NCAA). The NFL’s Commissioner, Paul Tagliabue, described the league’s newly implemented random steroid testing procedure, while the Committee learned about steroid use and testing in intercollegiate athletics from Frank Uryasz, director of sports sciences for the NCAA. Three doctors also testified, detailing the medical effects of steroid abuse.<sup>44</sup>

The March hearing resulted in legislation, H.R. 4658, The Anabolic Steroid Control Act of 1990, introduced by Rep. Hughes on April 26, 1990.<sup>45</sup> This bill proposed amending the Controlled Substances Act, 21 U.S.C. § 812(c), to add anabolic steroids as a Schedule III substance, making possession illegal.<sup>46</sup> H.R. 4658 also proposed amending the Controlled Substances Act to provide criminal penalties, up to a maximum of two years’ imprisonment, for personal trainers and coaches who attempted to induce or persuade athletes to use or possess anabolic steroids. The two year maximum increased to five years, if the athlete was a minor. Similarly to Sen. Biden’s S. 1829,<sup>47</sup> H.R. 4658 proposed to modify Section 333(e) of the Federal Food, Drug, and Cosmetic Act, 21 U.S.C. § 333, to proscribe the distribution of HGH. But unlike the Senate bill discussed below, H.R. 4658 preserved the statutory maximum of three years in Section 333(e), or six years if the crime involved a minor.

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<sup>42</sup> H.R. 3421, 101st Cong. (1989).

<sup>43</sup> *Abuse of Steroids in Amateur and Professional Athletics: Hearing Before the Subcomm. on Crime of the House Comm. on the Judiciary*, 101st Cong. (1990).

<sup>44</sup> *Id.*

<sup>45</sup> The Anabolic Steroid Control Act of 1990, H.R. 4658, 101st Cong. (1990).

<sup>46</sup> *Id.* at § 2(b).

<sup>47</sup> The Steroid Trafficking Act of 1989, S. 1829, 101st Cong. (1989).

The Subcommittee on Crime convened again on May 17, 1990, to consider H.R. 4658.<sup>48</sup> Rep. Levine, sponsor of H.R. 3421, which proposed designating anabolic steroids as a Schedule II substance, testified. Rep. Levine argued that Congress should place steroids in Schedule II because both tighter controls on distribution and a thicker paper trail accompany that class of drugs.<sup>49</sup> Rep. Levine specifically noted that pharmacists have to keep records of all Schedule II sales and that manufacturers must report sales to the DEA.<sup>50</sup> Committee Chairman Hughes expressed concern over the penalty structure of Schedule II, noting that while the maximum penalty for possession for both schedules was one year, the penalty under Schedule II for distribution was up to twenty years.<sup>51</sup> In a typical situation, where young users share steroids with others, Rep. Hughes considered the twenty year penalty excessive.<sup>52</sup> Rep. Levine agreed, but suggested that the twenty year penalty, while excessive for a typical user, was appropriate for major distributors of illegal steroids.<sup>53</sup> Chairman Hughes further explained that the current medical understanding of the use and effects of steroids indicated a more appropriate placement in Schedule III.<sup>54</sup>

The May 1990 hearing seemed to end the debate in the House over whether to designate anabolic steroids as Schedule II or III. H.R. 4658, which added steroids to Schedule III, subsequently became incorporated into a larger bill, H.R. 5269, the Comprehensive Crime Control Act of 1990.<sup>55</sup> The House Committee on the Judiciary reported H.R. 5269 favorably on July 23, 1990, and the House passed the Act on October 5, 1990.

## 2. Senate Version: S. 3266

The Senate's version of the Crime Control Act of 1990, S. 3266, A Bill to Control Crime,<sup>56</sup> introduced by Sen. Biden on October 27, 1990, also designated steroids as a Schedule III substance. The Senate bill, however, differed in some respects from the House's steroid bill and as a result of a joint conference after S. 3266 passed the Senate, the provisions of the

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<sup>48</sup> *Anabolic Steroid Control Act: Hearing on H.R. 4658 Before the Subcomm. on Crime of the House Comm. on the Judiciary*, 101st Cong. (1990).

<sup>49</sup> *Id.* at 14.

<sup>50</sup> *Id.*

<sup>51</sup> *Id.*

<sup>52</sup> *Id.*

<sup>53</sup> *Id.* at 15.

<sup>54</sup> *Id.* at 16.

<sup>55</sup> Comprehensive Crime Control Act of 1990, H.R. 5269, 101st Cong. (1990).

<sup>56</sup> A Bill to Control Crime, S. 3266, 101st Cong. (1990).

Senate's version of the Anabolic Steroid Control Act prevailed and changed the House bill in two major ways.<sup>57</sup> First, the conference eliminated the amendment providing criminal penalties for coaches and trainers.<sup>58</sup> Second, the penalties provided for the distribution of HGH increased to a five year maximum for possession with the intent to distribute, and doubled to ten years if the offense involved a minor.<sup>59</sup> The President signed S. 3266 into law, on November 29, 1990, designating anabolic steroids as a Schedule III substance for the first time.<sup>60</sup>

### C. The Commission's Response

Reacting to Congress' decision to place steroids among the designated Schedule III substances, the Commission worked to meet the challenges associated with placing steroids within the existing framework for computation of sentences for Schedule III drugs. In November 1990, a Commission staff Drug Working Group (the Group) prepared an intra-agency report, the 1990 Steroids Report, that proposed incorporating steroids into the existing framework of the drug guideline, USSG §2D1.1, which uses a drug quantity table to establish the base offense level.<sup>61</sup> The Commission later adopted the amendment as proposed in the report.

The 1990 Steroids Report distinguished the combination or "stacking" common to steroids users from users of other Schedule III substances who generally do not employ this type of sophisticated drug intake. While these characteristics made steroids hard to fit in the guidelines, the lack of information about typical usage made placement even more complex. The 1990 Steroids Report concluded that, at best, the Group could give a "ball park" figure as to the amount of steroids a "typical" user consumes during a given cycle, and noted that some individuals would consume substantially more, or significantly less, than a "typical" user.<sup>62</sup>

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<sup>57</sup> H.R. Report No. 101-1015 (1991).

<sup>58</sup> *Id.*

<sup>59</sup> *Id.*

<sup>60</sup> Crime Control Act of 1990, Pub. L. No. 101-647, 104 Stat. 4789 (1990).

<sup>61</sup> The 1990 Steroid Report is attached to this report at Appendix B.

<sup>62</sup> *Id.* at 7.

Nonetheless, the Group did recommend that the Commission employ a table provided by the FDA to use as a baseline for a typical user in an eight week cycle, differentiating between pills and vials, as depicted on the following table:

Week 1	14 Pills	100 mg Injectable
Week 2	21 Pills	150 mg Injectable
Week 3	28 Pills	150 mg Injectable
Week 4	35 Pills	200 mg Injectable
Week 5	25 Pills	200 mg Injectable
Week 6	28 Pills	150 mg Injectable
Week 7	21 Pills	100 mg Injectable
Week 8	14 Pills	100 mg Injectable
<b>Total</b>	<b>196 Pills</b>	<b>1150 mg Injectable</b>

With the complexities and characteristics of steroids noted, the Group grappled with the issues of measurement and quantity, determining that a base offense level for steroids that was based upon weight, as used with other Schedule III substances at that time, presented numerous problems. Weighing all steroids the same, disregarding type, form, and potency would lead to a grossly disproportionate relationship between culpability and punishment.<sup>63</sup>

Specifically, the weight of a vial, which may come in numerous different potencies, may differ drastically from the same drug in pill form, which may also vary in potency.<sup>64</sup>

In an attempt to solve these potential discrepancies, the Group proposed employing a calculus based on quantity, rather than weight. The Group used the DOJ's proposed pill-to-vial conversion ratios:

**1 unit = 1 vial @ 10 cc or 50 pills**

The Group gave little explanation for why it adopted these formulas, stating in the report that the "calculation is based on common dosages of frequently used steroids."<sup>65</sup> The Group recognized the shortcoming of the quantity approach, that different potency pills are treated similarly, but explained that judges do not take potency differences into account at sentencing, and further noted that distinguishing between potencies would make guideline drafting impossible.<sup>66</sup>

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<sup>63</sup> *Id.* at 12.

<sup>64</sup> *Id.*

<sup>65</sup> *Id.*

<sup>66</sup> *Id.* at 13.

The sentencing guidelines provided a base offense level ranging from 6 to 20 for Schedule III drugs. The problem still remained, however, of fitting steroids, which were calculated by quantity, into USSG §2D1.1's drug quantity table, which solely used weight as a measurement of the base offense level. The Group solved this problem by using the unit formula mentioned previously to correspond to a weight for other Schedule III substances:

**1 unit = 2 grams of Schedule III substance**

The DOJ proposed this conversion ratio of units to grams before Congress designated anabolic steroids a Schedule III substance.<sup>67</sup>

Although USSG §2D1.1 currently measures all Schedule III substances in units, the guidelines did not measure Schedule III substances in units when Congress passed the Anabolic Steroid Control Act of 1990. The Commission's 1991 amendment to USSG §2D1.1 responding to the 1990 Act made steroids the only Schedule III substance using the unit formula.<sup>68</sup> The rest of the Schedule III substances had individual conversion ratios to calculate the substances' weight into grams of marijuana. In 1995, the Commission changed the weight conversion system to a unit system for the rest of the Schedule III substances and Schedule I and II depressants.<sup>69</sup>

While the Group proposed adopting DOJ's weight to unit conversion ratio, in order to solve the problem of implementing steroids into the weight-based USSG §2D1.1, DOJ's proposed number of units corresponding to base offense levels did not fit into §2D1.1.<sup>70</sup> The DOJ's proposed base offense levels did not match the Schedule III range of 6 to 20, but instead started at level 8 and ended at level 19.<sup>71</sup> The Group proposed refining the DOJ proposal to make it fit into the guidelines drug quantity table. This chart reveals the difference:

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<sup>67</sup> *Id.* at 14.

<sup>68</sup> U.S. Sentencing Commission, *Guidelines Manual*, Amend. 369 (2005).

<sup>69</sup> *Id.* at §2D1.1, notes to Drug Quantity Table (F) (2005). In a 1995 amendment, the Commission established a formula for the conversion of all Schedule I and II depressants, and Schedule III substances, except steroids: one pill, capsule, or tablet equaled one unit. If the substance is liquid form, weight is still used, and one unit is 0.5 grams of liquid. USSG, Amend. 517 (2005). The rationale for the change appears to be similar to the unit system for steroids. In the *Reasons for Amendment to Amendment 517* the Commission noted that using the total weight of a pill had almost no correlation to the pill's potency, or to the gravity of the offense. *Id.*

<sup>70</sup> The Memo, *supra* note 4, at 14.

<sup>71</sup> *Id.*

Base Offense Level	DOJ Proposal In Units	Commission Response in Units
6		Fewer than 250
7		
8	Fewer than 500	250-1000
9	500-1000	
10	1001-2000	1001-2500
11	2001-4000	
12	4001-8000	2501-5000
13	8001-16,000	
14	16,001-32,000	5001-10,000
15	32,001-64,000	
16	64,001-128,000	10,001-20,000
17	128,001-250,000	
18	250,001-500,000	20,001-40,000
19	500,000+	
20		40,001+

The Group conceded in the 1990 Steroids Report that it had little concept of how this system was going to impact actual steroid users and dealers, noting that “the practical effect of adopting this chart is difficult to predict” and hoped that public comment on the proposed amendment would reveal some of the amendment’s real-world effects.<sup>72</sup> The Group did calculate the impact the system would have on the “typical” user, who uses five units in an eight-week period, and based the 250 unit baseline on a dealer who could distribute a steroid supply for more than one cycle to about 15 people.<sup>73</sup> The Group also suggested that the increased base offense levels could be interpreted as an appropriate response to Congress’ designation of steroids as a Schedule III substance.<sup>74</sup>

#### **D. The Anabolic Steroid Control Act of 2004**

Congressional attention on steroid abuse surfaced again in 2003, promoted by media reports about the pervasive use of steroids in professional and amateur sports and the growing number of “designer” steroids and steroids precursors.<sup>75</sup> Sen. Biden and Rep. John Sweeney, both of whom had been heavily involved in earlier debates about steroids, introduced bills related to steroids in 2003. Their respective bills were focused on anabolic steroid precursors. Sen. Biden’s bill, S. 1780, included a directive to the Commission to “review the Federal sentencing guidelines for crimes involving anabolic steroids and consider increasing

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<sup>72</sup> *Id.* at 15.

<sup>73</sup> *Id.*

<sup>74</sup> *Id.* at 16.

<sup>75</sup> 149 Cong. Rec. S13139-40 (daily ed. Oct. 23, 2003) (statement of Sen. Biden). Steroids precursors provide many of the same effects as anabolic steroids.

them.”<sup>76</sup> Senator John McCain also introduced a steroids bill in 2003. His bill directed the National Institute of Standards and Technology to establish a program that would have allowed for the detection of illegal steroids in athletes.<sup>77</sup> Congress did not take final action on the proposed legislation during the first session of the 108<sup>th</sup> Congress.

In 2004, Congress revisited the steroids issue, this time addressing specific concerns about the use of steroids in Major League Baseball. In April 2004, Sens. McCain and Biden, among others, co-sponsored a “sense of Congress” resolution “expressing the sense of the Senate that Major League Baseball clubs and their players should take immediate action to adopt a drug-testing policy that effectively deters Major League Baseball players from using anabolic steroids and any other performance enhancing substances. . . .”<sup>78</sup>

On March 1, 2004, Representative F. James Sensenbrenner, Jr. introduced H.R. 3866, which proposed expansion of the list of steroids proscribed as Schedule III substances to include steroid precursors, and to increase penalties for steroid offenses conducted within 1,000 feet of sports facilities.<sup>79</sup> The legislation also included a directive to the Commission similar to that set out in Sen. Biden’s pending legislation. Specifically, Section 3 of H.R. 3866 directed the Commission to “consider amending the Federal sentencing guidelines to provide for increased penalties with respect to offenses involving anabolic steroids in a manner that reflects the seriousness of such offenses and the need to deter anabolic steroid use.”<sup>80</sup>

On March 16, the House Committee on the Judiciary’s Subcommittee on Crime, Terrorism, and Homeland Security held a legislative hearing on anabolic steroid use and H.R. 3866.<sup>81</sup> Representative Howard Coble, Chairman of the Subcommittee, noted in his opening remarks that although the International Olympic Committee and other professional athletic associations banned steroid precursors, purchase of such drugs remained legal in the United States.<sup>82</sup> Emphasizing the prevalence of anabolic steroid use in all levels of sport,

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<sup>76</sup> 149 Cong. Rec. S13140 (daily ed. Oct. 23, 2003) (statement of Sen. Biden).

<sup>77</sup> Athletic Performance-Enhancing Drugs Research and Detection Act, S. 1002, 108th Cong. § 102 (2003).

<sup>78</sup> S. Res. 335, 108<sup>th</sup> Cong. (2004).

<sup>79</sup> Anabolic Steroid Control Act, H.R. 3866, 108th Cong. (2004).

<sup>80</sup> *Id.* at § 3 (2004).

<sup>81</sup> *Anabolic Steroid Control Act of 2004: Hearing on H.R. 3866 Before the Subcomm. on Crime, Terrorism, and Homeland Security of the House Comm. on the Judiciary*, 108th Cong. (2004).

<sup>82</sup> *Id.* at 1.

Rep. Coble expressed the Committee’s desire to reduce the ill-effects of steroid use for adults and youths.<sup>83</sup>

The Subcommittee heard testimony from Rep. Sweeney, a co-sponsor of H.R. 3866. A longtime advocate of banning steroid precursors, Rep. Sweeney’s earlier legislative efforts served as a template for Rep. Sensenbrenner’s legislation.<sup>84</sup> Rep. Sweeney recalled the event that started his crusade: a question by his teenage son of how a steroid precursor called “Andro” could be “bad” for anyone when it was widely available over the counter.<sup>85</sup> This experience prompted Rep. Sweeney to investigate the uses and effects of Andro, a substance that Mark Maguire confessed to using, and found that sales of the substance quadrupled after Mr. Maguire hit 70 homeruns in 1998, breaking Roger Marris’s longstanding record.<sup>86</sup> Serious health consequences accompany the use of Andro, a “functional equivalent of steroids.”<sup>87</sup> That finding prompted Rep. Sweeney to introduce legislation banning the substance from over the counter sales.<sup>88</sup>

The Subcommittee also received testimony from Joseph Rannazzisi, Deputy Director of the Office of Diversion Control for the DEA.<sup>89</sup> Mr. Rannazzisi highlighted that the monitoring and scheduling of steroids is difficult because of a “continuous rapid introduction of new steroids.”<sup>90</sup> Endorsing the Act completely, he highlighted two provisions that would make enforcement easier by the DEA. First, it would give DEA authority to enforce trafficking violations of steroid precursors and “designer steroids” that were being characterized as dietary supplements.<sup>91</sup> Second, the legislation would eliminate the requirement in the Anabolic Steroid Control Act of 1990 that the DEA prove a substance enhances muscle growth to schedule a new steroid.<sup>92</sup>

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<sup>83</sup> *Id.*

<sup>84</sup> H.R. 5564, 107th Cong. (2002) introduced by Rep. Sweeney. The bill died in committee.

<sup>85</sup> Hearing on H.R. 3866, *supra* note 80, at 4, 5.

<sup>86</sup> *Id.* at 5.

<sup>87</sup> *Id.*

<sup>88</sup> *Id.*

<sup>89</sup> *Id.* at 6.

<sup>90</sup> *Id.* at 7.

<sup>91</sup> *Id.*

<sup>92</sup> *Id.* The Anabolic Steroid Control Act of 1990 contained a four part test for the DEA to classify new steroids as a Schedule III steroid. One part questioned whether the steroid



Dr. Ralph Hale, Chairman of the United States Anti-Doping Agency (USADA), also testified before the subcommittee.<sup>93</sup> Dr. Hale argued that legislative action should be taken to prevent the continued influx of steroid precursors and steroids into a market of consumers unaware of the substances' medical risks.<sup>94</sup> Dr. Hale stated that "the USADA believes the current effectively unregulated availability of products containing steroid precursors in the United States is a health crisis that affects not just elite athletes, but every consumer who takes one of these products without being informed of the risks."<sup>95</sup> Dr. Hale recommended regulation of steroid precursors as the best way to stop the production and mitigate health risks.<sup>96</sup>

Finally, Robert Hazelton, a former boxer and steroid user, testified.<sup>97</sup> Now an advocate for adolescent steroid awareness, Mr. Hazelton told the Committee of a personal and tragic history of steroid abuse that he believes ultimately led to the amputation of his two legs and countless recurring medical problems.<sup>98</sup>

All Committee members who asked questions during the hearing voiced support for H.R. 3866. Of particular note, Representative Robert Scott asked Deputy Director Rannazzisi why the number of steroid prosecutions had been low.<sup>99</sup> Mr. Rannazzisi responded that the widespread availability of legal steroid precursors brought the Schedule III anabolic steroids into disuse.<sup>100</sup>

A number of different sentencing issues arose during the full House Judiciary Committee's mark up of H.R. 3866 on April 2, 2004.<sup>101</sup> Ranking Member John Conyers, Jr. supported the legislative proposal because it would increase the criminal penalties associated with the distribution of steroid precursors. He further expressed concern that under the current

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promoted muscle growth. However, there was a lack of accepted methodology available to validate this requirement. With that requirement in place, the DEA previously had failed to designate any steroid as a Schedule III substance. *Id.*

<sup>93</sup> *Id.* at 10.

<sup>94</sup> *Id.* at 11.

<sup>95</sup> *Id.* at 13.

<sup>96</sup> *Id.*

<sup>97</sup> *Id.* at 14.

<sup>98</sup> *Id.* at 14-15.

<sup>99</sup> *Id.* at 31-32.

<sup>100</sup> *Id.* at 32.

<sup>101</sup> H.R. Rep. No. 108-461 (2004).

guidelines, because the maximum base offense level for a Schedule III substance is 20, the maximum sentence for a first time offender is only 33-41 months.<sup>102</sup> To obtain the maximum sentence, Rep. Conyers noted that the “offender would have to have between 40,000 and 60,000 units which is defined as a 10 cc vial or 50 tablets.”<sup>103</sup>

Additionally, in an exchange with Chairman Sensenbrenner, Representative Melvin Watt expressed concern about the underlying rationale for doubling the penalty for offenses within 1,000 feet of an athletic facility, and what “doubling” the sentence meant. It was explained that the increased penalty aimed at deterring offenses near an athletic facility, where, according to testimony presented at the subcommittee hearing, most violations occur. Rep. Watt revealed his preference that the Commission calculate the appropriate sentences. Chairman Sensenbrenner described the double penalty as modeled on the drug-free school zone statute, explaining it would allow a judge to sentence up to twice the maximum if the offense occurred near an athletic facility.

The Senate companion bill, S. 2195 (the Anabolic Steroid Control Act of 2004), introduced by Sen. Biden, was reported by committee and passed by the Senate with minimal debate.<sup>104</sup> Introduced on March 11, 2004, S. 2195 differed from the House legislation in two major respects: (1) it did not increase penalties for offenses near sporting facilities; and (2) it included funding for education programs in elementary and secondary schools. It did, however, retain the directive to the Commission to review and amend the guidelines to reflect the seriousness of steroids offenses and provide effective deterrence. On October 6, 2004, the Senate passed S. 2195 by unanimous consent.<sup>105</sup> The House ultimately adopted the Senate’s version of the bill and on October 22, 2004, it was enacted as the Anabolic Steroid Control Act of 2004, Pub. L. No. 108-358.<sup>106</sup>

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<sup>102</sup> Citations to H.R. Rep. No. 108-461 (2004) have been omitted because the document is not paginated.

<sup>103</sup> This statement is only partially correct. To obtain the maximum base offense level, an offender must have more than 40,000 units. There is no upper limit of 60,000 units.

<sup>104</sup> Anabolic Steroid Control Act, S. 2195, 108th Cong. (2004). (S. 1780, the Anabolic Steroid Control Act, which was similar legislation introduced the year before by Sen. Biden, never made it out of committee).

<sup>105</sup> Prior to the bill’s passage, Sens. Biden, Orrin Hatch, Ted Kennedy, and Dick Durbin addressed the omission of DHEA, a steroid precursor, from the list of banned steroids. 150 Cong. Rec. S10606-09 (daily ed. Oct. 6, 2004). The floor debate questioned the criteria DEA could use to ban the substance, and concluded that if DHEA is abused and unregulated by DEA, further congressional action may be required. *Id.* Legislation has been introduced during the 109<sup>th</sup> Congress to add DHEA to the list of scheduled precursors but it has not moved.

<sup>106</sup> The Anabolic Steroid Control Act of 2004, Pub. L. No. 108-358, 118 Stat. 1661 (2004).

## **E. Commission Response to the Anabolic Steroid Control Act of 2004**

The Commission recognized the seriousness of steroid offenses and the need to fulfill the congressional directive contained in the Anabolic Steroid Control Act of 2004. At a public hearing held by the Commission on April 12, 2005, similar questions to those raised when the Commission considered the issue in 1990 were posed by current Commissioners about the uniqueness of steroid users and its abuse generally when compared to other controlled substances, the harms associated with steroid abuse, and how to characterize the typical steroid trafficker.

Commissioners requested further information on a number of different points.<sup>107</sup> Regarding the quantities of steroids generally trafficked, Rick Collins, testifying on behalf of the National Association of Criminal Defense Lawyers, responded that typically, there are two categories of traffickers. The more typical scenario consists of smaller scale dealers who tend to be users who collectively pool their funds among two or three others to acquire steroids through mail order, with that user acting as the recipient who then distributes the steroids to the group. With respect to the larger scale traffickers, Mr. Collins stated those individuals typically are not within the user community and instead traffick for the money, often also trafficking other controlled substances. However, the larger scale traffickers, in his opinion, are few and far between because of the ready accessibility of steroids by international mail order and through the Internet.

Additionally, Mr. Collins was asked about the level of violence associated with the use of steroids, particularly in young people. Mr. Collins first cautioned the Commission that those cases discussed in the media are isolated incidents which are anecdotal in nature. He also stated that Dr. Charles Yesalis, who testified before Congress during debate on the Anabolic Steroid Control Act of 1990, has argued that the idea of “roid rage” as a typical psychotic steroid-induced behavior has been greatly exaggerated. However, he discussed studies conducted by Dr. Jack Darkes in which it was found that there is some correlation between higher testosterone levels, even when occurring naturally, and aggressive behavior. In the context of male teenage users, Mr. Collins explained that their hormone levels have been found to be as high as hardened adult steroid users but stated that in those isolated incidents where steroids may have played a role, steroid use was more likely one of a matrix of factors.

Finally, when asked to discuss whether some state legislatures have indicated a certain amount of either pills or liquids would constitute trafficking, Mr. Collins stated it was difficult to provide a quantification on the amount constituting personal use as compared to an amount indicating trafficking on the state level, characterizing the states’ approach as a “crazy quilt of laws.”<sup>108</sup> In some states, Mr. Collins noted, the mere possession of a steroid is a felony and in some, it is a misdemeanor. For example, he stated in Louisiana, possession of any amount is

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<sup>107</sup> *Id.*, Testimony of Rick Collins before the United States Sentencing Commission, April 12, 2005. Available at: [http://www.ussc.gov/hearings/04\\_12\\_05/Collins.pdf](http://www.ussc.gov/hearings/04_12_05/Collins.pdf).

<sup>108</sup> *Id.*

punishable by up to five years in prison with or without hard labor. He further advised that two states, Vermont and Alaska, had not scheduled anabolic steroids in any way as of the date of the hearing, but that Alaska had a bill in the legislature to address the issue. In addition, Mr. Collins indicated that with respect to dosages, the concept of tablets and cc's is irrelevant because users think in terms of milligrams, a potency measurement, with the important point being the milligram amount of the active ingredient.

Although Commission staff had ongoing and informative discussions with DOJ representatives about these and other issues, staff were unable to provide satisfactory responses to Commissioner questions about steroids offenses. In April 2005, Commissioners decided to table a vote on amending the guidelines for steroids offenses and instead conduct more research and update the Commission's 1990 Steroid Report.

To ensure that the Commission's work in this area was conducted as quickly as possible, the Commission sought and received emergency amendment authority from Congress to address steroids offenses outside its normal, year-long notice and comment cycle. Instead, the Commission sought a six-month review and promulgation period. On July 1, 2005, the Senate passed legislation, S.1368, granting the Commission emergency amendment authority to amend the sentencing guidelines, commentary, and policy statement to implement the Anabolic Steroid Control Act of 2004.<sup>109</sup> The House introduced companion legislation, H.R. 3020, but on September 22, 2005, it adopted the Senate bill. The bill became Pub. L. No. 109-76 on September 27, 2005. The Commission has until March 27, 2006, to promulgate an emergency amendment to the guidelines for steroids offenses. The emergency amendment is required to be re-promulgated as part of the Commission's package of regular amendments and submitted to Congress for its consideration on May 1, 2006, or else the emergency amendment will expire by November 1, 2006.

#### **IV. FINDINGS REGARDING STEROIDS OFFENSES TODAY**

In the months since the enactment of the Anabolic Steroid Control Act of 2004, the Commission has been engaged in a number of activities geared toward implementing the directive contained in the Act and updating the Commission's 1990 Steroid Report. Specifically, on September 27, 2005, the Commission hosted a roundtable discussion that included experts from the scientific community, a government health agency, law enforcement, and the defense community.<sup>110</sup> Commission staff also attended congressional hearings related to steroids and Major League Baseball, met with congressional staff working on steroids issues, and worked with the Government Accountability Office (GAO) on its report on steroids penalties. The results of the Commission's work to update its 1990 Steroids Report is set forth in Part IV of this report.

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<sup>109</sup> United States Parole Commission Extension and Sentencing Commission Authority Act of 2005, S. 1368, 109th Cong. (2005).

<sup>110</sup> A list of attendees and the questions covered by the roundtable are attached at Appendix A.

## A. The Commission's 1990 Steroids Report

In the 1990 Steroids Report, the Commission recognized Congress' growing concern for the health risks of illegal steroid use and its widespread abuse. The report found the following:

- (1) Illegal steroid use involved using a number of steroids "stacked" together to manage potency and taken for specific "cycles" ranging from six to eight weeks.
- (2) A body of scientific literature existed documenting the side effects of steroid use in various organ systems, and that those effects differed by gender of the user.
- (3) Information provided by DEA, reflecting then current knowledge, indicated that steroids were not physically or psychologically addicting.
- (4) Steroids differed somewhat from other controlled substances both in the array of types of steroids being criminalized and in the varying dosages available.
- (5) Characteristics of steroid users were different from that of users of other controlled substances.
- (6) Steroid traffickers could be roughly categorized as small (less than 10 customers), medium (10 to 20 customers), large (more than 20 customers), and huge wholesalers ("with ongoing businesses grossing hundreds of thousands of dollars").
- (7) Penalties for steroid offenses had typically resulted in sentences of probation.
- (8) Steroid offenses were not covered by the sentencing guidelines.

The DOJ recommended a sentencing scheme that was considered by the Commission but found to be difficult to implement within the existing drug trafficking guidelines.<sup>111</sup> The Commission modified the DOJ's suggested method and created a more severe penalty structure that was consistent with the drug guideline.

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<sup>111</sup> Although the drug guideline, USSG §2D1.1, currently measures all Schedule III drugs in units, the guidelines did not measure Schedule III substances in units when the Commission's 1991 amendment to §2D1.1, responding to the 1990 Act, made steroids the only Schedule III substance using the unit formula. The rest of the Schedule III substances had individual conversion ratios used to calculate the substances' weight into grams of marijuana. In 1995, the Commission changed the weight conversion system to a unit system for the rest of the Schedule III substances and Schedule I and II depressants. At that time, the Commission established the current definition of one pill equaling one unit while maintaining the existing penalty for steroids, thus creating a distinction between steroid penalties from penalties for other Schedule III substances.

## **B. Steroids Today**

Information regarding the pattern of use, prevalence, and harms associated with steroid abuse is very similar in 2006 to the information available to the Commission in 1990 with two major differences:

First, steroids are now considered potentially addictive, with documented withdrawal symptoms.

Second, steroids are primarily distributed through use of the Internet involving international sources.

Additionally, in 1990, one-third of illicitly used steroids were diverted from legitimate sources in the United States. Discussion elicited at the September 27, 2005, roundtable discussion suggested that by 2005, illegal diversion represented a very small proportion of illegal steroid distribution.

### **1. Prevalence**

In order to gather data on the prevalence of steroid abuse, the Commission staff conducted a review of available literature and surveys. The results of this research are outlined below.

Yersalis, et al., (1993) reported steroid use in the general population based upon findings from the 1991 National Household Survey on Drug Abuse.<sup>112</sup> Estimates from the survey indicated that there were 1 million current or former users of steroids in the United States with more than 300,000 persons using in the year prior to the survey.<sup>113</sup> More recently, NIDA, noting in its 2000 publication the scarcity of recent data on adult use, estimated that “hundreds of thousands of people aged 18 or older abuse anabolic steroids at least once a year”<sup>114</sup>

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<sup>112</sup> C. E. Yersalis, et al., *Anabolic-Androgenic Steroid Use in the United States*, 270 *Journal of the American Medical Assoc.* 10, 1217-1221 (September 8, 1993).

<sup>113</sup> A current user is defined as someone who has used a drug in the 30 days prior to taking the questionnaire and a former user is someone who reports using a drug in their lifetime.

<sup>114</sup> These estimates are approximately the same as reported from the 1994 National Household Survey on Drug Abuse, the last year in which questions regarding steroid use were included. In 1994 the estimate for lifetime prevalence was 1,084,000 with an estimated 312,000 users in the past year. U.S. Department of Health and Human Services, Public Health Service, SAMHSA, Office of Applied Studies, Advance Report Number 10, Preliminary Estimates from the 1994 National Household Survey on Drug Abuse, *September 1995*, Rockville, MD 20857. Available at: <http://www.oas.samhsa.gov/ftp/nhsda/ar10all.wpd>

Congress has expressed its concern with steroid abuse among youth since its deliberations in 1988 leading up to making steroid distribution a felony.<sup>115</sup> This concern was most recently reiterated in the Anabolic Steroid Control Act of 2004. The ongoing Monitoring the Future Survey (MTFS) of Grades 8, 10, and 12 provides a window into drug using behaviors and attitudes in this population.<sup>116</sup> Data from this 2005 survey indicate that the percentage of eighth, tenth and twelfth graders using steroids in the past year is 1.1 percent, 1.3 percent, and 1.5 percent, respectively (Table 1). The prevalence among tenth and twelfth graders has declined from prior years, especially among twelfth graders who reported a 2.5 percent prevalence rate in 2004. However, while there has been a trending downward generally in the annual prevalence of steroid use in these grades, extrapolating downward from eighth grade to the corresponding tenth grade (for example, the eighth-grade class of 1991 became the tenth-grade class of 1993) and then further to the corresponding twelfth-grade class (which had become the twelfth-grade class of 1995) indicates that use typically remains steady or rises with age. The recent downturn among twelfth graders in 2005 (from the 1.7 percent of tenth graders in 2003) is insufficient to determine if this generally long-standing pattern is changing.<sup>117</sup>

**Table 2**  
**Trend in Annual Percentage of Students Reporting Steroid Use in**  
**Eighth, Tenth, And Twelfth Grade**<sup>118</sup>

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
8th	1.0	1.1	0.9	1.2	1.0	0.9	1.0	1.2	1.7	1.7	1.6	1.5	1.4	1.1	1.1
10th	1.1	1.1	1.0	1.1	1.2	1.2	1.2	1.2	1.7	2.2	2.1	2.2	1.7	1.5	1.3
12th	1.4	1.1	1.2	1.3	1.5	1.4	1.4	1.7	1.8	1.7	2.4	2.5	2.1	2.5	1.5

Source: Monitoring the Future, University of Michigan.

The MTF survey also reports on attitudes and perceptions of drugs among these student samples. In 2005, 56.8 percent of twelfth graders in the sample reported that taking steroids is a “great risk.” Responses to this have hovered in the mid to upper fiftieth percentile for several years but is lower than its peak level (70.7%) reported in 1992. Also in the 2005 sample, 39.7

<sup>115</sup> Hughes, *supra* note 15.

<sup>116</sup> Monitoring The Future, University of Michigan, Monitoring The Future Survey (2005), available at: <http://monitoringthefuture.org/data/data/html>.

<sup>117</sup> *Id.* Data from the 2005 survey further indicate that the percentage of eighth, tenth and twelfth graders using heroin in the past year is 0.8 percent, 0.9 percent, and 0.8 percent, respectively; cocaine usage in the last year is 2.2 percent, 3.5 percent, and 5.1 percent, respectively; and marijuana usage in the last year is 12.2 percent, 26.6 percent, and 33.6 percent, respectively.

<sup>118</sup> *Id.*

percent of twelfth graders reported that it would be “fairly easy” or “very easy” to obtain steroids. This represents the first time the response has been below forty percent and is seven percentage points below the peak of 46.8 percent also reported in 1992.<sup>119</sup>

Steroid abuse is often regarded as being limited to athletes motivated to use steroids for their potential to improve performance. However, as indicated by testimony received at the Commission last year, reasons for steroid abuse are not limited to enhanced athletic performance but also include use for purely cosmetic purposes.<sup>120</sup> CBS News recently reported on steroid abuse by adolescent girls, two-thirds of whom were using steroids for cosmetic purposes (“to get a muscular or cut look”).<sup>121</sup> Testimony before the House Committee on Government Reform also indicated that steroids are used by some teenage girls for cosmetic purposes, though it is unclear how widespread such use is.<sup>122</sup>

## 2. Harmful Effects

Supraphysiologic<sup>123</sup> doses of anabolic steroids produce an array of potential health consequences, some reversible at discontinuation and others irreversible, that differ for men and women. These consequences involve the hormonal, musculoskeletal, and cardiovascular systems. Steroid abuse may also cause liver and skin disorders and may increase risk of serious infectious diseases associated with use of non-sterile injection equipment and procedures.<sup>124</sup> A good summary of these health related consequences is available from NIDA and is reproduced at Figure 1.

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<sup>119</sup> MTFS website tables, *supra* note 115. See also the GAO Report on Steroids which discusses the ready availability of steroids through the Internet. GAO, Report #GAO-06-243R (Nov. 3, 2005). Available at: <http://www.gao.gov/new.items/d06243r.pdf>.

<sup>120</sup> Testimony of Rick Collins before the United States Sentencing Commission, April 12, 2005. Available at: [http://www.ussc.gov/hearings/04\\_12\\_05/Collins.pdf](http://www.ussc.gov/hearings/04_12_05/Collins.pdf)

<sup>121</sup> CBS News, Steroids: Not Just a Guy Thing, April 27, 2005. Available at: <http://www.cbsnews.com/stories/2005/04/27/earlyshow/health/main691201.shtml>

<sup>122</sup> San Francisco Chronicle, Many Teenage Girls Abuse Steroids, Lawmakers Told, June 16, 2005. Available at: <http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2005/06/16/MNGAUD9H1G1.DTL>.

<sup>123</sup> The American Heritage Stedman’s Medical Dictionary *su-pra-phys-i-o-log-ic* (spr-fz-ljk) or *supraphysiological* (-kl) *adj.* **1.** Indicating a dose that is larger or more potent than would occur naturally, as of a chemical agent that mimics a hormone. **2.** Of or relating to the physiological effects of such a dose. The American Heritage Stedman’s Medical Dictionary, 2<sup>nd</sup> ed., Houghton Mifflin Company, copyright 2004.

<sup>124</sup> NIDA, *supra* note 9; *see also* Brower, *supra* note 9, and Hall, *supra* note 10.



Additionally, various psychiatric disorders are also associated with the abuse of steroids.<sup>125</sup> Pope and Katz report that “convincing data now exist to suggest AASs can produce prominent psychiatric effects in some individuals (347) . . . [it is important to note that] . . . psychiatric responses to AASs are nonuniform: a majority of users exhibit little or no psychiatric change, whereas a minority exhibit prominent and sometimes severe psychiatric effects (342).”<sup>126</sup>

**Figure 1**

According to NIDA’s research report on anabolic steroid abuse, the following potential health consequences of anabolic steroid abuse are listed:<sup>127</sup>

<p><b>Hormonal System</b>  <u>In Men:</u>  <ul style="list-style-type: none"> <li>• infertility</li> <li>• breast development</li> <li>• shrinking of the testicles</li> </ul> <u>In Women:</u>  <ul style="list-style-type: none"> <li>• enlargement of the clitoris</li> <li>• excessive growth of body hair</li> </ul> <u>In Both Sexes:</u>  <ul style="list-style-type: none"> <li>• male-pattern baldness</li> </ul> </p>	<p><b>Musculoskeletal System</b>  <ul style="list-style-type: none"> <li>_ short stature</li> <li>_ tendon rupture</li> </ul> </p>	<p><b>Skin</b>  <ul style="list-style-type: none"> <li>_ acne and cysts</li> <li>_ oily scalp</li> </ul> </p>
	<p><b>Cardiovascular System</b>  <ul style="list-style-type: none"> <li>_ heart attacks</li> <li>_ enlargement of the heart’s left ventricle</li> </ul> </p>	<p><b>Infection</b>  <ul style="list-style-type: none"> <li>_ HIV/AIDS</li> <li>_ hepatitis</li> </ul> </p>
	<p><b>Liver</b>  <ul style="list-style-type: none"> <li>_ cancer</li> <li>_ peliosis hepatis</li> </ul> </p>	<p><b>Psychiatric Effects</b>  <ul style="list-style-type: none"> <li>_ homicidal rage</li> <li>_ mania</li> <li>_ delusions</li> </ul> </p>

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<sup>125</sup> *Id.*

<sup>126</sup> Pope & Katz, *supra* note 9. Others have also reported that only an extremely small proportion of users experience significant psychological symptoms (including violent behavior) associated with steroid abuse and note that prior psychiatric history, genetics, environment, and expectations may influence these results in an unknown manner. M. S. Bahrke et al., *Psychological and Behavioural Effects of Endogenous Testosterone and Anabolic-Androgenic Steroids*, 22(6) *Sports Med.* 367-390 (Dec. 1996). .

<sup>127</sup> National Institute on Drug Abuse, Research Report Series, *Anabolic Steroid Abuse*, p. 5 (revised 2000). Available at: <http://www.nida.nih.gov>.

### 3. Abuse/Dependence/Withdrawal

The Commission's 1990 Steroids Report stated that information from DEA at that time indicated that steroids were not addictive (a position endorsed by the American Medical Association). That report indicates that others had proposed a theory of steroid use that included the potential for addiction.<sup>128</sup>

More recent information provided by NIDA in its 2000 update of steroid abuse indicates that an "undetermined" proportion of steroid users become addicted - exhibiting behaviors (*e.g.*, drug seeking, continuation of use despite consequences) identical to addiction to other drugs of abuse.<sup>129</sup> The information also indicates that some abusers experience withdrawal symptoms "such as mood swings, fatigue, restlessness, loss of appetite, insomnia, reduced sex drive, and the desire to take more steroids"<sup>130</sup>

A theoretical model for steroid addiction was recently proposed by Kirk J. Brower which attempts to explain the development of addiction from substances that do not generally provide the same intoxicating rewards to its user as other controlled substances.<sup>131</sup> Because of the

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<sup>128</sup> This report included early work by Brower and others on the hypothetical addictive potential of anabolic androgenic steroids but appears to have agreed with the conclusion of DEA that steroids were not physically or psychologically addictive. This finding also appears to conflict with the finding of the Senate Committee of the Judiciary in 1989 when it was considering classifying steroids as a Schedule II substance.

<sup>129</sup> Addiction is "a chronic, relapsing disease, characterized by compulsive drug seeking and use, and by neurochemical and molecular changes in the brain." Heroin users spend increasingly more time and energy getting and using the drug and the drugs change their brains and behavior. Methamphetamine users exhibit symptoms which include violent behavior, anxiety, confusion, and insomnia, and can also exhibit psychotic symptoms including paranoia, auditory hallucinations, mood disturbances and delusions. See National Institute on Drug Abuse, NIH Pub. No. 05-4165, *Heroin Abuse and Addiction* (May 2005); National Institute on Drug Abuse, NIH Pub. No. 02-4210, *Methamphetamine Abuse and Addiction* (January 2002).

<sup>130</sup> NIDA, *supra* note 9, at 6. Symptoms of withdrawal for heroin users is described as occurring "within a few hours after the last time the drug is taken" and include "restlessness, muscle and bone pain, insomnia, diarrhea, vomiting, cold flashes with good bumps ("cold turkey"), and leg movements. NIDA reports that although there are not physical manifestations of a withdrawal syndrome upon disuse of methamphetamine, "there are several symptoms that occur when a chronic user stops taking the drug" including depression, anxiety, fatigue, paranoia, aggression, and an intense craving for the drug." See NIDA's reports on *Heroin Abuse and Addiction* and *Methamphetamine Abuse and Addiction*, *supra* note 128.

<sup>131</sup> Brower, *supra* note 9.

differences between the action of steroids compared to other drugs of abuse a two-stage model of addiction is theorized. This theory suggests that initially the steroid's reward for the user is experienced in the muscle growth associated with its use. However, at a later time, perhaps because of the very large dosages associated with illicit use, a brain based reward "similar to other drugs of abuse" is experienced.<sup>132</sup> It has also been reported that "[t]he reinforcing effects [reward experienced by the user] of steroids takes much longer to develop and therefore are more resistant to extinction [breaking the habit]."<sup>133</sup>

#### 4. Steroids as Gateway Drugs

There is some evidence indicating that use of steroids may be associated with the use of other drugs of abuse and may serve, for some users, as a "gateway"/introductory drug to use of other controlled substances.

Two older surveys of high school students found that use of steroids is associated with the presence of other risk behaviors generally (such as drinking and driving, engaging in unprotected sex, carrying a gun, fighting, etc),<sup>134</sup> and with other illegal drug use specifically,<sup>135</sup> leading one researcher (Middleman) to conclude that adolescent steroid use is part of a more general "risk behavior syndrome."<sup>136</sup>

Consistent with the above findings, a recent review of the scientific literature on steroid use reports that "[t]he immersion [of steroid users] in the drug subculture [to obtain drugs or equipment, to learn how to use them, to learn how to hide and pay for their steroids] often leads to the abuse of other substances."<sup>137</sup> More recent research on drug users in treatment for drug abuse other than steroid abuse found that an unexpected proportion (13%) reported prior steroid use. The authors conclude that steroid use may be under-recognized in drug treatment populations, especially those with opioid dependence. They also conclude that for some of these users, the steroid use may serve as a "gateway" to abuse of other controlled substances.<sup>138</sup>

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<sup>132</sup> *Id.* at 381.

<sup>133</sup> Scott Lukas, *SE CNS Effects and Abuse Liability of Anabolic Androgenic Steroids*, 36 *Annu. Rev. Toxicol.* 333-57 (1996).

<sup>134</sup> A. B. Middleman, et al., *High-Risk Behaviors Among High School Students in Massachusetts Who Use Anabolic Steroids*, 96 *Pediatrics* 268-272 (1995).

<sup>135</sup> R. H. DuRant et al., *Anabolic-Steroid Use, Strength Training, and Multiple Drug Use Among Adolescents in the United States*. 96 *Pediatrics* 23-28 (1995).

<sup>136</sup> Middleman, et al., *supra* note 133.

<sup>137</sup> Hall, *supra* note 10, at 553.

<sup>138</sup> G. Kanayama, et al., *Past Anabolic-Androgenic Steroid Use Among Men Admitted for Substance Abuse Treatment: An Underrecognized Problem*. 64 *J. Clin. Psychiatry* 2, 156-

Typically the “gateway” concept refers to a drug user moving on to other types of drugs after introduction by the “gateway” drug. A recent report by the GAO<sup>139</sup> on steroids suggests a new meaning to this term. The GAO reports that steroid distributors use steroid sales to determine if the buyers are law enforcement officers. If satisfied that buyers are “legitimate,” they then may offer “narcotics, such as cocaine,” for sale.<sup>140</sup> This presents a novel method for drug distributors outside the United States to “test the waters” by distributing a drug, legal in the seller’s country, before offering drugs classified internationally as illegal to distribute.

## 5. Steroids Trafficking

The current DEA Fact Sheet on steroids indicates that the primary source of illegal steroids is through purchases via the Internet. The next most common source is from steroids being smuggled into the United States from Mexico and Europe where steroids are often available without a prescription.<sup>141</sup> This is consistent with findings from the 2005 GAO Steroids Report.<sup>142</sup>

In discussions with Commission staff, law enforcement officials have indicated that they consider a medium size trafficker as someone who distributes a complete cycle to 10 customers. A person is considered a high-level trafficker if they distribute one complete cycle to 30 customers. This is similar to trafficking information provided by DOJ during the 1990 deliberations. At that time, having fewer than 10 customers was indicative of a small level trafficker, a medium distributor had between 10 and 20 customers, and a large trafficker was identified as having more than 20 customers.

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160 (February 2003).

<sup>139</sup> See GAO Report, *supra* note 116, at 1.

<sup>140</sup> *Id.* at 6.

<sup>141</sup> DEA Briefs & Background, *Drugs and Drug Abuse*, Drug Descriptions, Steroid Factsheet. Available at: [http://www.usdoj.gov/dea/concern/steroids\\_factsheet.html](http://www.usdoj.gov/dea/concern/steroids_factsheet.html).

<sup>142</sup> The overall findings of the 2005 GAO Steroids Report are not inconsistent with Commission research. That report found, for example, that: (1) steroids come from abroad; (2) use of the Internet for steroids trafficking is widespread; (3) the sheer volume of international shipping presents enforcement challenges; and (4) shipment of bulk powder steroids is an emerging problem. This last finding is of particular interest because this form of the drug, as well as others, also presents a sentencing problem. Presently, the guidelines determine the penalty level of steroid offenses based upon the number of pills or the volume of liquid involved in the offense. The guidelines do not provide guidance to the courts on determination of penalties for other forms of steroids such as the bulk powders described in this report as well as other forms that steroids may take (*e.g.*, topical creams, patches, etc).

## 6. Commission Data Analysis

Between 2001 and 2005, a total of 46 offenders were sentenced under the drug trafficking guideline for steroid trafficking offenses. The number of cases received during each period of time is as follows: (1) 11 cases in Fiscal Year 2001; (2) 8 cases in Fiscal Year 2002; (3) 9 cases in Fiscal Year 2003; (4) 8 cases in Fiscal Year 2004 pre-*Blakely*;<sup>143</sup> and (5) 10 cases in Fiscal Year 2005 post-*Booker*.<sup>144</sup>

A total of 24 federal judicial districts were involved with these cases. The Eastern District of New York, with 6 cases, and the Western District of Texas, with 5 cases, reported the most cases over this period.

Offenders were male (44 of the 45 cases for which gender was known) and mostly U.S. citizens (80.0%, n=36). Half (n=23) were under thirty years of age. Three offenders were over 50 years of age and 68.9 percent had some college education or had completed college.

Base offense levels assigned under USSG §2D1.1 ranged from level 6 to level 20 but over half (56.5%, n=26) of the cases had base offense levels of 6 (n=14) or 8 (n=12). Weapon involvement in the offense was rare, as only 3 offenders (6.5%) received an enhancement, either statutorily or under the guidelines, for this conduct. Penalty adjustments in Chapter Three of the guidelines rarely were applied, other than 3E1.1 (Acceptance of Responsibility). Acceptance of responsibility was credited in 41 (89.1%) of the cases. Most offenders (78.3%, n=36) were in Criminal History Category I, indicating minimal or no prior criminal justice involvement.

Most offenders (72.7%, n=32) were sentenced within the guideline range, one case received an upward departure, three received a downward departure, and eight (18.2%) received a downward departure under USSG §5K1.1 for providing substantial assistance to authorities. Over half (56.5%, n=26) of these cases received a probation-only sentence. Fourteen of these

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<sup>143</sup> The pre-*Blakely* period refers to that portion of Fiscal Year 2004 from October 1, 2003, until June 24, 2004, the date of the Supreme Court decision in *Blakely v. Washington*, 542 U.S. 296 (2004). *Blakely* invalidated the Washington State guideline sentencing scheme because facts enhancing the defendant's sentence under that scheme were not put before the jury. The impact of *Blakely* on the federal scheme is difficult to measure, which may produce unreliable results in the data. Accordingly, this analysis uses only that portion of Fiscal Year 2004 data which predates the *Blakely* decision.

<sup>144</sup> The post-*Booker* period refers to that portion of Fiscal Year 2005 from January 13, 2005, the date of the U.S. Supreme Court decision in *United States v. Booker*, 543 U.S. 220 (2005), through September 30, 2003, the end of the fiscal year. In *United States v. Booker*, the Supreme Court applied the ruling in *Blakely* to the federal guidelines. For the reasons stated in footnote 138, *supra*, this analysis uses only that portion of Fiscal Year 2005 data which postdates the *Blakely* decision.

cases received a prison sentence with an average sentence of 14.5 months (median sentence is 6 months).

#### **IV. CONCLUSION**

The Commission appreciates congressional concern about the dangers associated with steroids offenses and the need for the penalties imposed to reflect the seriousness of these offenses and the need to deter anabolic steroid trafficking and abuse. In implementing the congressional directive to the Commission in the Anabolic Steroid Control Act of 2004 to consider increasing penalties for such offenses, the Commission undertook to update its previous research on steroids offenses and penalty structures.

This additional research revealed that steroid offenses are characterized by the same patterns of use, prevalence, and harms associated with steroid use as was the case in 1990, when the Commission first studied steroid offenses. The research also revealed, however, that steroids are now considered potentially addictive, with documented withdrawal symptoms, and are capable of being more widely distributed than before through the use of the Internet and involve international sources.

This information is important to the Commission's consideration of the appropriate penalties for steroids offenses, as it implements the directive in the Anabolic Steroid Control Act of 2004 and also ensures, pursuant to 28 U.S.C. § 991(b), that such penalties promote the purposes of sentencing as set forth in 18 U.S.C. § 3553(a).

## Appendix A

### **Steroid Trafficking Penalties Roundtable Discussion**

United States Sentencing Commission

September 27, 2005

On September 27, 2005, the Commission held a roundtable discussion including experts from the scientific community, a government health agency, law enforcement, and the defense community.

#### **A. PARTICIPANTS**

In addition to Commission staff, the following individuals participated in the Roundtable Discussion:

- Rick Collins, Esquire, private attorney practicing primarily in the area of nutritional supplement law and sports drug defense;
- Dr. Jack Darkes, Associate Scholar and Assistant Professor of Psychology at the University of South Florida, Associate Director for the Alcohol and Substance Use Research Institute, researcher with expertise in addiction;
- Dr. Scott Lukas, Professor of Psychiatry, Harvard Medical School and Director of the Behavioral Psychopharmacology Research Laboratory, McLean Hospital, physician and researcher recommended by the National Institute on Drug Abuse;
- Harrison G. Pope Jr., M.D., MDH, Professor of Psychiatry, Harvard Medical School, physician and researcher with a number of publications on consequences of steroid use;
- Gary Wadler, M.D., Professor at New York University, and an expert in sports doping;

#### Representatives from the Department of Justice

Doug Coleman, Agent  
Charlotte Mapes  
Matt Perrella, Assistant United States Attorney  
Michelle Morales (DOJ Liaison to the Commission)

#### Representatives from the Food and Drug Administration.

Gregg Goneconto, Agent  
Sarah Hawkins, Office of the General Counsel

## B. TOPICS OF DISCUSSION

Specific topics discussed at the Roundtable Discussion included the following:

- 1) How prevalent is the use of anabolic androgenic steroids?
- 2) What, if any, are the harms associated with the illicit use or trafficking of anabolic androgenic steroids? Harms might include physical and/or psychological harms to the user, the family and friends of the user, or to the community-at-large as a result of the use and trafficking of these substances.
- 3) Is violence associated with the use or trafficking of steroids?
- 4) How are steroids trafficked?  
Are there mid-level and high-level traffickers of steroids?  
What quantities of steroids would these persons be involved with?  
Do steroid dealers also deal in other drugs sometimes referenced in association with bodybuilding, *e.g.*, analgesics? (If not, where do users get them?)
- 5) How were steroids made available for illegal distribution in the past (say around 1990)?  
Were they available primarily from diversion of pharmaceutical products or were they primarily illicitly imported?  
Are they accurately packaged? (Do the items contain what is advertised?)
- 6) To provide a context for analysis, how do the responses to the questions above on steroids compare with those aspects of the use and trafficking of other Schedule III controlled substances? How do they compare in terms of prevalence, harms, and violence?
- 7) Trafficking in steroids is punished to a substantially lesser extent than the trafficking of other Schedule III controlled substances. Is the distinction appropriate? If yes, why or if no, why not?
- 8) Currently the Federal Guidelines provide a method to calculate penalties for steroids trafficked in liquid form or in the form of a pill, tablet, or capsule. As steroids become available in other forms (*e.g.*, transdermal patch, inhaler, topical cream, etc.) what method(s) of calculating penalties would best fit into the current methodology of calculating "units" of the substances?
- 9) Should the Commission develop penalties for specific aspects of steroid trafficking offenses such as: if the formulation includes an agent to prevent detection in routine testing, distribution to high profile athletes, etc?
- 10) The Commission also is considering creating penalties for offenses involving the trafficking of human growth hormone (HGH). Should the Commission create penalties for HGH? If so, should these penalties be placed in the drug guideline or elsewhere?