Department of Defense
Drug Demand Reduction Program (DDRP)

Drug Testing Advisory Board Meeting
June 11, 2015

COL Tom Martin, USA
Director, Drug Testing and Program Policy
Office of the Under Secretary of Defense for Personnel and Readiness
Personnel Risk Reduction
The Personnel Risk Reduction (PRR) office:

- Provides Drug Demand Reduction policy, direction, oversight and program analysis

- Dialogues with the Military Services and other Governmental Agencies to further the Department’s efforts to mitigate drug abuse and reduce counterproductive “high risk behaviors”
The vision of our office is challenging but clear:

The Department must implement timely, effective policy initiatives and appropriate directives to drive down preventable mishaps and illicit drug abuse to zero

And our mission statement supports that vision:

Through the leadership of the 3-Star Safety and Occupational Health Steering Group and the Addictive Substance Misuse Advisory Committee foster, encourage, and facilitate policies, programs, and initiatives that identify, mitigate, and address counterproductive high risk behaviors
Personnel Risk Reduction

Dir, Risk Reduction: Len Litton
Program Assistant: Rebecca Moyer
- Dir, DDRP: COL Tom Martin
- Accident Reduction: Jerry Aslinger
- Risk Systems: Laura Macaluso

[Color codes: Civilian, Military, Contractor]
P&R Equities in Addressing Illegal Drug Use

• Drug abuse directly affects individual and unit readiness and is a safety issue

• Deterrence requires a realistic and substantive ability to detect drug abuse and hold accountable individuals who chose to abuse drugs. Drug abuse crosses all ages and ranks
  • Consumes limited resources
  • Significant loss to the Services Return on Investment
  • FY14 over 15,500 service members drug positive

• Ten years of military conflicts has generated a large population of injured Service members due to combat or training
  • Significant increase in the number and duration of opiate-base prescriptions issued (Oxycodone, Hydrocodone)
  • Substantial potential for dependency / addiction
  • Substantial problem in drug diversion – sharing or “trading up”
**DDRP Mission/Regulatory Guidance**

**Mission:**

- Deter illicit and prescription drug abuse by military service members and DoD civilian personnel in testing designated positions (TDPs) to maintain military readiness and safety

- Provide drug abuse prevention, education, and outreach services to military personnel and their families

- Identify new drugs of abuse entering the illicit drug culture and develop testing procedures to detect their use

**Regulatory guidance is found in:**

- DODI 1010.01 Military Personnel Drug Abuse Testing Program
- DODI 1010.09 DoD Civilian Employee Drug-Free Workplace Program
- DODI 1010.16 Technical Procedures for the Military Personnel Drug Abuse Testing Program
- Executive Order 12564--Drug-Free Federal Workplace
DDRP Driving Factors

- Drug abuse in the general U.S. 18-25 year old male group is estimated to be 17-20%— the population from which the Service recruits their enlisted personnel.

- Before DoD instituted drug testing among Service personnel, drug use was a significant recurring problem:
  - Vietnam (estimated over 5% of returning service members addicted to heroin)
  - 1981 CVN Nimitz aviation mishap – 14 killed, 48 injured, 7 aircraft destroyed, 11 aircraft damaged, $150M in damages, six deceased with detectable levels of marijuana

- Notable increase in abuse/misuse of prescription pain medications

- Personnel abusing illicit drugs or prescription medications are a safety hazard resulting in the potential loss of equipment, resources, and lives
DDRP History

- **Jun 11, 1971** – President Nixon directed military drug urinalysis program to identify service members with drug addiction returning from Vietnam.

- **May 26, 1981** – CVN Nimitz aviation mishap – 14 killed, 48 injured, 7 aircraft destroyed, 11 aircraft damaged, $150M in damages. Six deceased service members with detectable levels of marijuana upon medical autopsy and toxicology analysis.

- **Dec 28, 1981** – Deputy Secretary authorized use of drug positive urinalysis for punitive measures including courts martial and military separation.

- **1984** – Department of Defense issued DoD Directive 1010.1 that formally defined forensic drug testing requirements and responsibilities for testing.

- **September 15, 1986** – President Reagan issued Executive Order 12564 mandating drug testing for all federal civilians.

- **2010** – Chairman, Joint Chiefs of Staff requested review and emphasis on program funding for expanded prescription drug testing for opiates and benzodiazepines.
DoD Laboratories

US Army FTDTL
Tripler AMC, HI

US Navy DSL
Great Lakes, IL

US Army FTDTL
Fort Meade, MD

US Navy DSL
Jacksonville, FL

US Air Force DTL
Lackland AFB, TX

US Navy DSL
San Diego, CA
Current Panel of Tested Drugs

- Marijuana (THC)
- Cocaine (BZE)
- Amphetamine & Methamphetamine
- Designer Amphetamines / Ecstasy
- Heroin
- Oxycodone/Oxymorphone
- Hydrocodone/hydromorphone
- Codeine/Morphine (100% Opiates Testing on 1 Oct 2012)
- Benzodiazepines: nordiazepam, oxazepam, temazepam, lorazepam, and α-OH alprazolam (100% on 1 Oct 2013)
- Synthetic Cannabinoids (December 16, 2013)
- Special request for unusual or novel drug testing conducted at Armed Forces Medical Examiners System
DoD Cutoffs

**Screening (ng/mL)**
- Amphetamines 500
- Cannabinoids 50
- Cocaine 150
- Opiates 300
- Designer Amps 500
- 6-AM 10
- Oxycodone 100
- Hydrocodone 300
- Benzodiazepines 200
- Synthetic cannabinoids 10

*Lorazepam; Diazepam; Temazepam; Alpha-Hydroxy Alprazolam; Ozazepam

**Confirmation (ng/mL)**
- d-Amphetamine 100
- d-Methamphetamine 100
- THC metabolite 15
- Benzoylecgonine 100
- Codeine 2,000
- Morphine 4,000
- MDMA/MDA 500
- 6-AM 10
- Oxycodone 100
- Oxymorphone 100
- Hydrocodone 100
- Hydromorphone 100
- Benzodiazepines* 100
- Synthetic cannabinoids 1
Current Situation
(Positive Drug Distribution)

- ~40% decrease in opiate positives, but prescription medication abuse cause for concern!

<table>
<thead>
<tr>
<th>Unique Active Duty Positive Service Members</th>
<th>2009 (12,368)</th>
<th>2010 (10,790)</th>
<th>2011 (8,988)</th>
<th>2012 (8,837)</th>
<th>2013 (8,948)</th>
<th>2014 (7,948)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marijuana</td>
<td>8,472</td>
<td>6,937</td>
<td>5,535</td>
<td>5,454</td>
<td>5,000</td>
<td>4,498</td>
</tr>
<tr>
<td>Cocaine</td>
<td>2,864</td>
<td>2,309</td>
<td>2,025</td>
<td>1,714</td>
<td>1,195</td>
<td>1,120</td>
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<tr>
<td>d-Amphetamine</td>
<td>993</td>
<td>976</td>
<td>971</td>
<td>973</td>
<td>899</td>
<td>752</td>
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<tr>
<td>d-methamphetamine</td>
<td>624</td>
<td>502</td>
<td>507</td>
<td>478</td>
<td>439</td>
<td>384</td>
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<tr>
<td>MDMA (Ecstasy)</td>
<td>804</td>
<td>751</td>
<td>415</td>
<td>154</td>
<td>150</td>
<td>148</td>
</tr>
<tr>
<td>MDA (Adam)</td>
<td>410</td>
<td>334</td>
<td>204</td>
<td>101</td>
<td>98</td>
<td>91</td>
</tr>
<tr>
<td>PCP</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>NT</td>
<td>NT</td>
</tr>
<tr>
<td>Codeine (39% testing in FY 2012)</td>
<td>118</td>
<td>104</td>
<td>104</td>
<td>144</td>
<td>209</td>
<td>158</td>
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<tr>
<td>Morphine (39% testing in FY 2012)</td>
<td>140</td>
<td>165</td>
<td>174</td>
<td>194</td>
<td>237</td>
<td>169</td>
</tr>
<tr>
<td>Oxycodone (35% testing in FY 2012)</td>
<td>250</td>
<td>402</td>
<td>305</td>
<td>485</td>
<td>775</td>
<td>439</td>
</tr>
<tr>
<td>Oxymorphine (35% testing in FY 2012)</td>
<td>485</td>
<td>746</td>
<td>604</td>
<td>840</td>
<td>1,368</td>
<td>784</td>
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<tr>
<td>Hydrocodone (39% testing in FY 2012)</td>
<td>NT</td>
<td>NT</td>
<td>NT</td>
<td>187</td>
<td>554</td>
<td>285</td>
</tr>
<tr>
<td>Hydromorphone (39% testing in FY 2012)</td>
<td>NT</td>
<td>NT</td>
<td>NT</td>
<td>232</td>
<td>622</td>
<td>334</td>
</tr>
<tr>
<td>Heroin</td>
<td>108</td>
<td>104</td>
<td>136</td>
<td>118</td>
<td>122</td>
<td>115</td>
</tr>
<tr>
<td>α-hydroxy-alprazolam (23% testing in FY 2013)</td>
<td>NT</td>
<td>NT</td>
<td>NT</td>
<td>NT</td>
<td>NT</td>
<td>40</td>
</tr>
<tr>
<td>Lorazepam (23% testing in FY 2013)</td>
<td>NT</td>
<td>NT</td>
<td>NT</td>
<td>NT</td>
<td>NT</td>
<td>13</td>
</tr>
<tr>
<td>Nordiazepam (23% testing in FY 2013)</td>
<td>NT</td>
<td>NT</td>
<td>NT</td>
<td>NT</td>
<td>NT</td>
<td>33</td>
</tr>
<tr>
<td>Oxazepam (23% testing in FY 2013)</td>
<td>NT</td>
<td>NT</td>
<td>NT</td>
<td>NT</td>
<td>NT</td>
<td>134</td>
</tr>
<tr>
<td>Temazepam (23% testing in FY 2013)</td>
<td>NT</td>
<td>NT</td>
<td>NT</td>
<td>NT</td>
<td>NT</td>
<td>92</td>
</tr>
</tbody>
</table>
Overall Military Positive Rate
Positive Rate by Component

- **Active Duty**
- **Reserve**
- **National Guard**
- **Military Applicants**

The graph shows the positive rate percentages for each component from 2009 to 2014.

### Key Observations:
- The positive rate for the Military Applicants component consistently remained below 1% from 2009 to 2014.
- The Reserve component's rate varied, with a peak of 1.66% in 2009 and a dip to 1.34% in 2014.
- The National Guard component showed a peak of 2.36% in 2010, followed by a steady decline to 1.59% in 2014.
- The Active Duty component had a peak of 2.50% in 2009, followed by a decline, reaching 2.00% in 2014.

### Years and Rates:
- 2009: Active Duty - 2.25%, Reserve - 1.45%, National Guard - 1.42%, Military Applicants - 1.01%
- 2010: Active Duty - 2.36%, Reserve - 1.66%, National Guard - 1.16%, Military Applicants - 0.88%
- 2011: Active Duty - 2.13%, Reserve - 1.53%, National Guard - 0.83%, Military Applicants - 0.72%
- 2012: Active Duty - 1.73%, Reserve - 1.28%, National Guard - 0.76%, Military Applicants - 0.70%
- 2013: Active Duty - 1.73%, Reserve - 1.40%, National Guard - 0.96%, Military Applicants - 0.72%
- 2014: Active Duty - 1.59%, Reserve - 1.34%, National Guard - 0.81%, Military Applicants - 0.67%
Synthetic Marijuana (Spice)

• “Spice” products present unique challenges
  • Large number of Spice drug variants that are continually changing
  • Requires a low cost automated screening procedures to facilitate large population random testing

• DoD response
  • Random testing started December 16, 2013
  • 0.023 positive rate (similar to MDMA) in CY 2014

• Adding five metabolites May 2015
  • 5F-PB22
  • MAM-2201
  • AB-Chminaca
  • AB-Fubinaca
  • AB-Pinaca
Adjusting the Testing Panel

- **Rapid response to changing threat**
  - ecstasy, oxycodone/oxymorphone
  - hydrocodone/hydromorphone
  - benzodiazepines

- **Prevalence testing**
  - Results drive change
  - Approved by OUSD(Personnel & Readiness)
  - Short time frame (< 1 year)

- **Emerging synthetic drugs**
  - “Spice” - Synthetic cannabinoids
  - “Bath Salts” – Synthetic cathinones / methamphetamine
  - Supplement Additives
Automated MRO Review Process

- Compares positive result to the individual’s military prescription record
- Implemented on May 1, 2012
- Decreased manual MRO process (MRO “Wash”)
- Tricare/DoD pharmacy dependent
- FY 2014 Summary
  - Oxycodone = 78% (12,586 positives “washed”)
  - Benzodiazepines = 67% (11,838 positives “washed”)
  - Opiates = 46% (11,443 positives “washed”)

# DoD Agencies’ Testing Results

<table>
<thead>
<tr>
<th>FY</th>
<th>TDPs Tested</th>
<th>TDPs Positive</th>
<th>TDP Positive Rate</th>
<th>Applicants Tested</th>
<th>Applicants Positive</th>
<th>Applicant Positive Rate</th>
<th>Combined Positive Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>114,374</td>
<td>420</td>
<td>0.37</td>
<td>30,295</td>
<td>121</td>
<td>0.40</td>
<td>0.37</td>
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<tr>
<td>2013</td>
<td>117,041</td>
<td>443</td>
<td>0.38</td>
<td>24,146</td>
<td>97</td>
<td>0.40</td>
<td>0.38</td>
</tr>
<tr>
<td>2014</td>
<td>116,108</td>
<td>413</td>
<td>0.36</td>
<td>27,845</td>
<td>77</td>
<td>0.28</td>
<td>0.34</td>
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</tbody>
</table>
Laboratory vs. MRO Positives

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Positives</th>
<th>% Unauthorized</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>317</td>
<td>26.91</td>
</tr>
<tr>
<td>2011</td>
<td>429</td>
<td>42.48</td>
</tr>
<tr>
<td>2012</td>
<td>418</td>
<td>25.74</td>
</tr>
<tr>
<td>2013</td>
<td>367</td>
<td>27.21</td>
</tr>
<tr>
<td>2014</td>
<td>344</td>
<td>23.2</td>
</tr>
</tbody>
</table>

- **Unauthorized**
- **Authorized**
- **Total**
- **% Unauthorized**

Graph showing the number of positives and percentage of unauthorized for the years 2010 to 2014.
AMPHETAMINE

Number of Positives

<table>
<thead>
<tr>
<th>Year</th>
<th>Unauthorized</th>
<th>Authorized</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>6</td>
<td>521</td>
<td>527</td>
</tr>
<tr>
<td>2011</td>
<td>32</td>
<td>365</td>
<td>397</td>
</tr>
<tr>
<td>2012</td>
<td>34</td>
<td>831</td>
<td>865</td>
</tr>
<tr>
<td>2013</td>
<td>39</td>
<td>717</td>
<td>756</td>
</tr>
<tr>
<td>2014</td>
<td>25</td>
<td>878</td>
<td>903</td>
</tr>
<tr>
<td>Year</td>
<td>Unauthorized</td>
<td>Authorized</td>
<td>Total</td>
</tr>
<tr>
<td>------</td>
<td>--------------</td>
<td>------------</td>
<td>-------</td>
</tr>
<tr>
<td>2010</td>
<td>38</td>
<td>4</td>
<td>42</td>
</tr>
<tr>
<td>2011</td>
<td>36</td>
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<td>38</td>
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<td>2012</td>
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<td>2013</td>
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<td>34</td>
</tr>
<tr>
<td>2014</td>
<td>47</td>
<td>2</td>
<td>49</td>
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</table>
CODEINE

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unauthorized</td>
<td>9</td>
<td>13</td>
<td>13</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Authorized</td>
<td>170</td>
<td>120</td>
<td>170</td>
<td>115</td>
<td>118</td>
</tr>
<tr>
<td>Total</td>
<td>179</td>
<td>133</td>
<td>183</td>
<td>123</td>
<td>125</td>
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</tbody>
</table>
MORPHINE

Unlocked: 14 14 14 11 7
Authorized: 159 85 187 143 135
Total: 173 99 201 154 142

Number of Positives

<table>
<thead>
<tr>
<th>Year</th>
<th>Unauthorized</th>
<th>Authorized</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>14</td>
<td>159</td>
<td>173</td>
</tr>
<tr>
<td>2011</td>
<td>14</td>
<td>85</td>
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<td>2012</td>
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<tr>
<td>2013</td>
<td>11</td>
<td>143</td>
<td>154</td>
</tr>
<tr>
<td>2014</td>
<td>7</td>
<td>135</td>
<td>142</td>
</tr>
</tbody>
</table>
In God We Trust, Everybody Else Must Pee In The Bottle