

DEPARTMENT OF DEFENSE OFFICE OF DRUG DEMAND REDUCTION PROGRAM (ODDR)

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Director, ODDR



PERSONNEL AND READINESS



ODDR Mission and Scope

Mission:

Enable operational readiness, safety, and security of the Total Force by deterring illicit and prescription drug abuse through robust and dynamic drug testing; emerging drug threat surveillance; prevention, education, and outreach efforts; and development of new testing procedures.

Scope:

All DoD components and DoD civilians in testing designated positions. (TDPs)

Policies:

DoDI 1010.01 “Military Personnel Drug Abuse Testing Program (MPDATP)”

DoDI 1010.09 “DoD Civilian Employee Drug-Free Workplace Program”

DoDI 1010.16 “Technical Procedures for the Military Personnel Drug Abuse Testing Program (MPDATP)”



DoD Drug Demand Reduction Program

Testing



Illicit Drugs: Marijuana, Cocaine, Methamphetamine, MDMA (Ecstasy), Heroin, Amphetamines, SYCANs



Expanded Prescription Opiates & Benzodiazepines



Synthetic Cannabinoids

Collections



Frequent Randomized Collections



Forensic Chain of Custody for Litigation or Punitive Actions



DoD Civilian Drug Free Federal Workplace Program

Prevention & Outreach



Anti-Drug Training and Awareness



Military Family Drug-Free Outreach Programs

Joint Service



Centralized Instrument Procurement



Military Entrance Processing Station (MEPS) Drug Testing

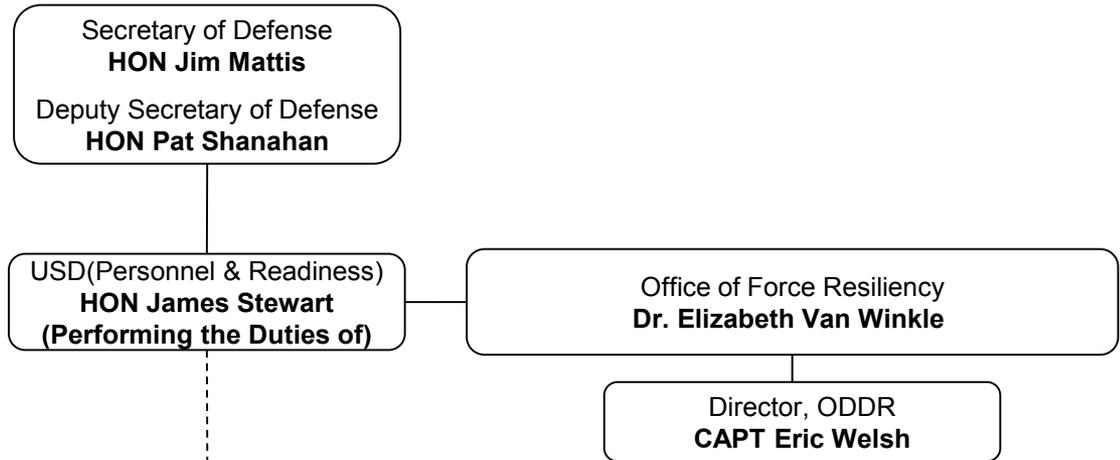


AFMES Forensic Toxicology Drug Surveillance and Testing Methodology Development

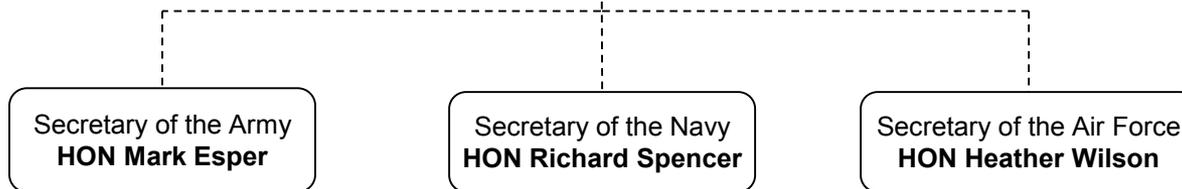


DoD Drug Demand Reduction Leadership

**POLICY
ADVICE & GUIDANCE**



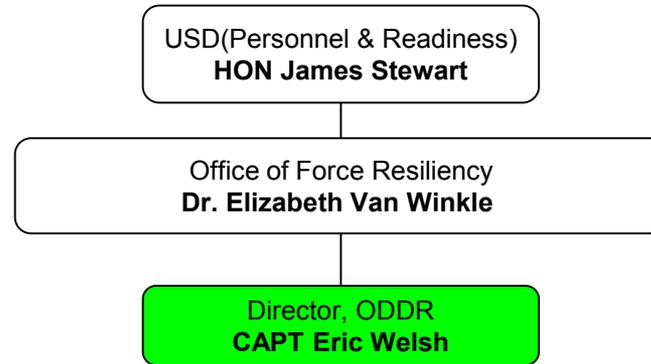
EXECUTION



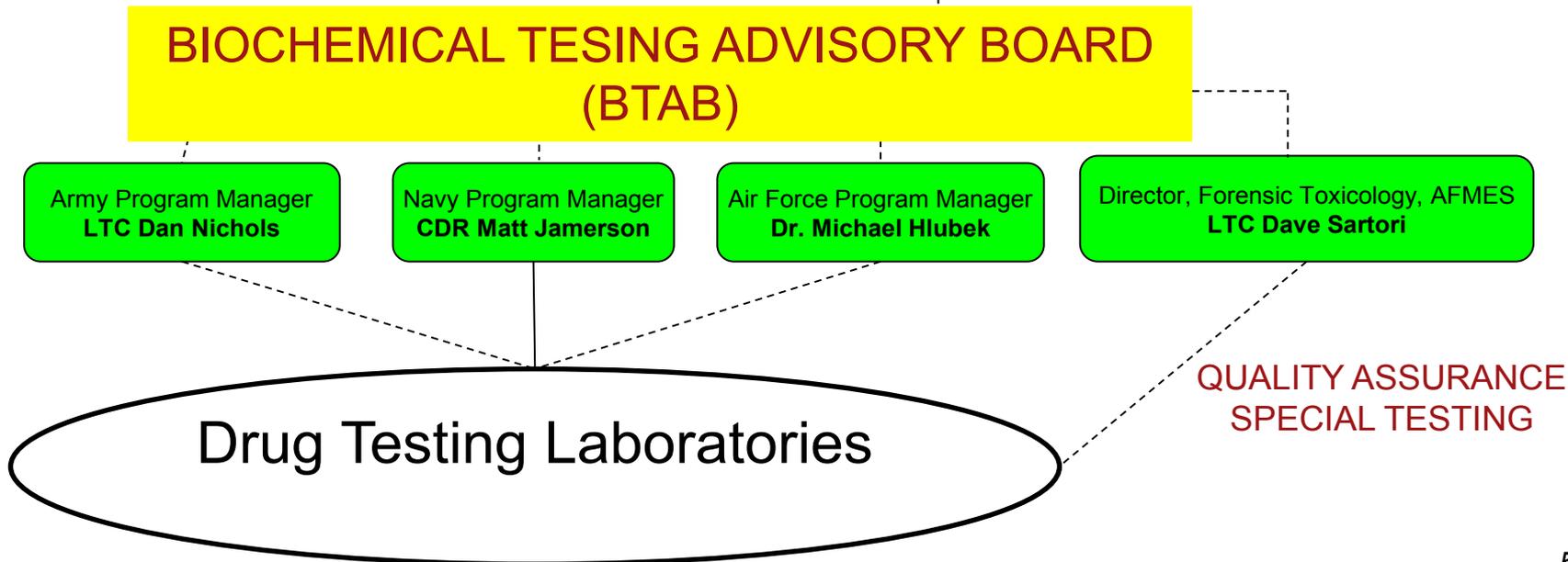


DoD Drug Demand Reduction Leadership

**POLICY
ADVICE & GUIDANCE**



EXECUTION





BTAB Organization

- Advise Director, ODDR on technical and policy issues
- Two Embodiments
 - Technical Matters (drug testing)
 - Policy Matters
- Composition
 - Services' Technical and Personnel Program Representatives from all Service components
 - Voting members
 - Military and/or federal employees
 - Non-voting Chairs
 - Technical: Director, Division of Forensic Toxicology, AFMES
 - Policy: Director, ODDR



BTAB Functions

- Methodologies and new technologies for drug testing
- External proficiency testing
- QA procedures
- Certification, decertification, recertification
- Addition/deletion to drug testing panel
- Policy changes
- Research projects
- Prevalence testing



General BTAB Process

- Data driven recommendations
- Stepwise procedure
 - Objective data presented to BTAB from various sources
 - Surveillance: testing of routine specimens and seized materials
 - Literature review
 - Congressional interest
 - News Media reports, etc.
 - Evaluate data and make decision recommendation to ODDR
 - Capability
 - Capacity
 - Cost
 - Policy change approved by USD(P&R) and implemented
 - DoD QA oversight



Successful BTAB Process

Inputs:

- Prescription drug abuse
 - Opioids
 - Benzodiazepines
- Emerging synthetic drugs
 - “Spice” - Synthetic Cannabinoids
 - “Bath Salts” – Synthetic Cathinones / Phenethylamines
 - Supplement Additives
- Prevalence testing / Surveillance data

Outcomes:

- Additions
 - Ecstasy, Oxycodone/Oxymorphone
 - Hydrocodone/Hydromorphone
 - Benzodiazepines
 - Synthetic Cannabinoids
- Deletions
 - LSD
 - MDEA
 - Barbiturates



Origin of Punitive Drug Testing Program

- ODDR mission driven from a safety mishap – *Night of Flaming Terror* (Time June 8 1981)



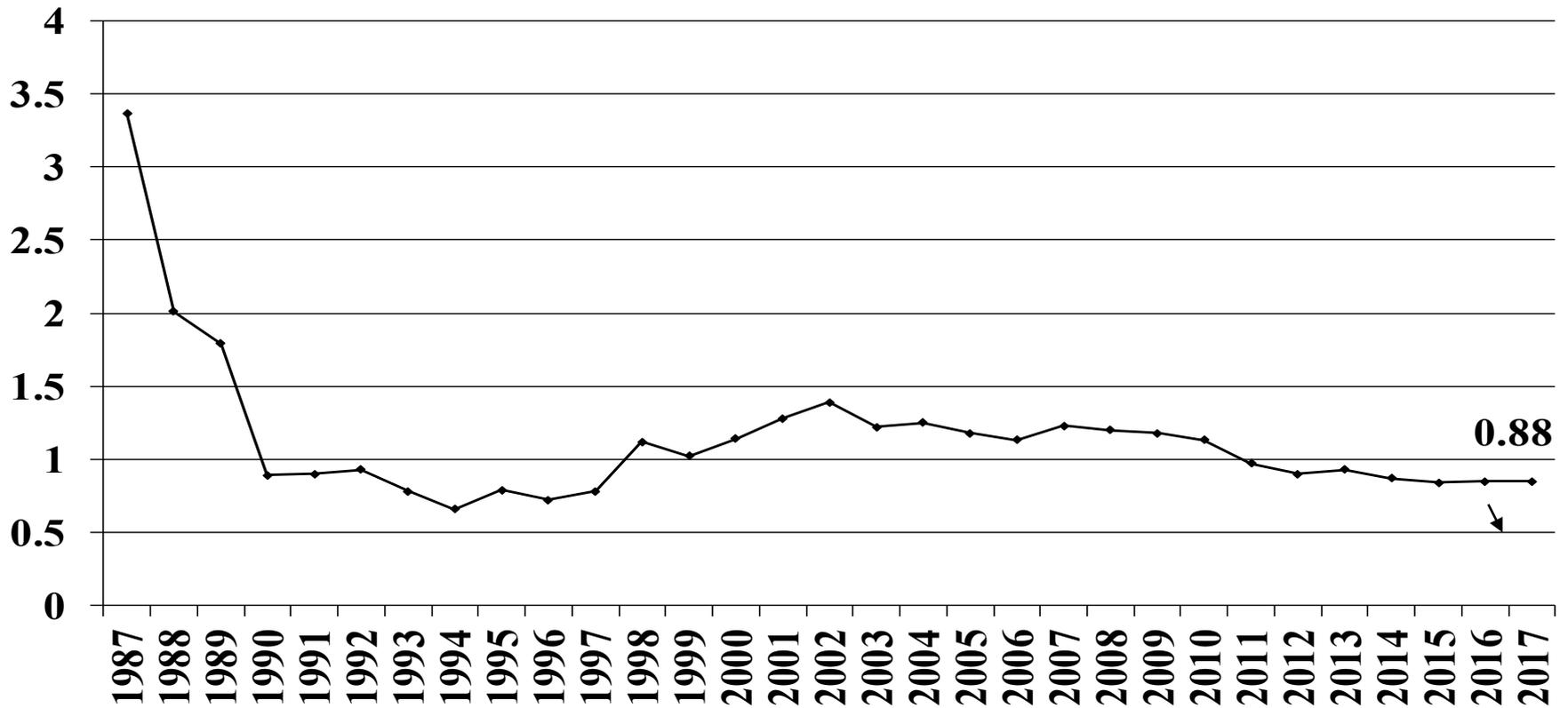
- May 25, 1981- CVN-68 Nimitz, an EA-6B Prowler night landing mishap (14 killed, 48 injured, 7 aircraft destroyed)
- Six deceased Service members with detectable levels of marijuana



- Dec 1981 – Deputy Secretary Defense authorized use of drug positive urinalysis for punitive measures including court martials and military separation

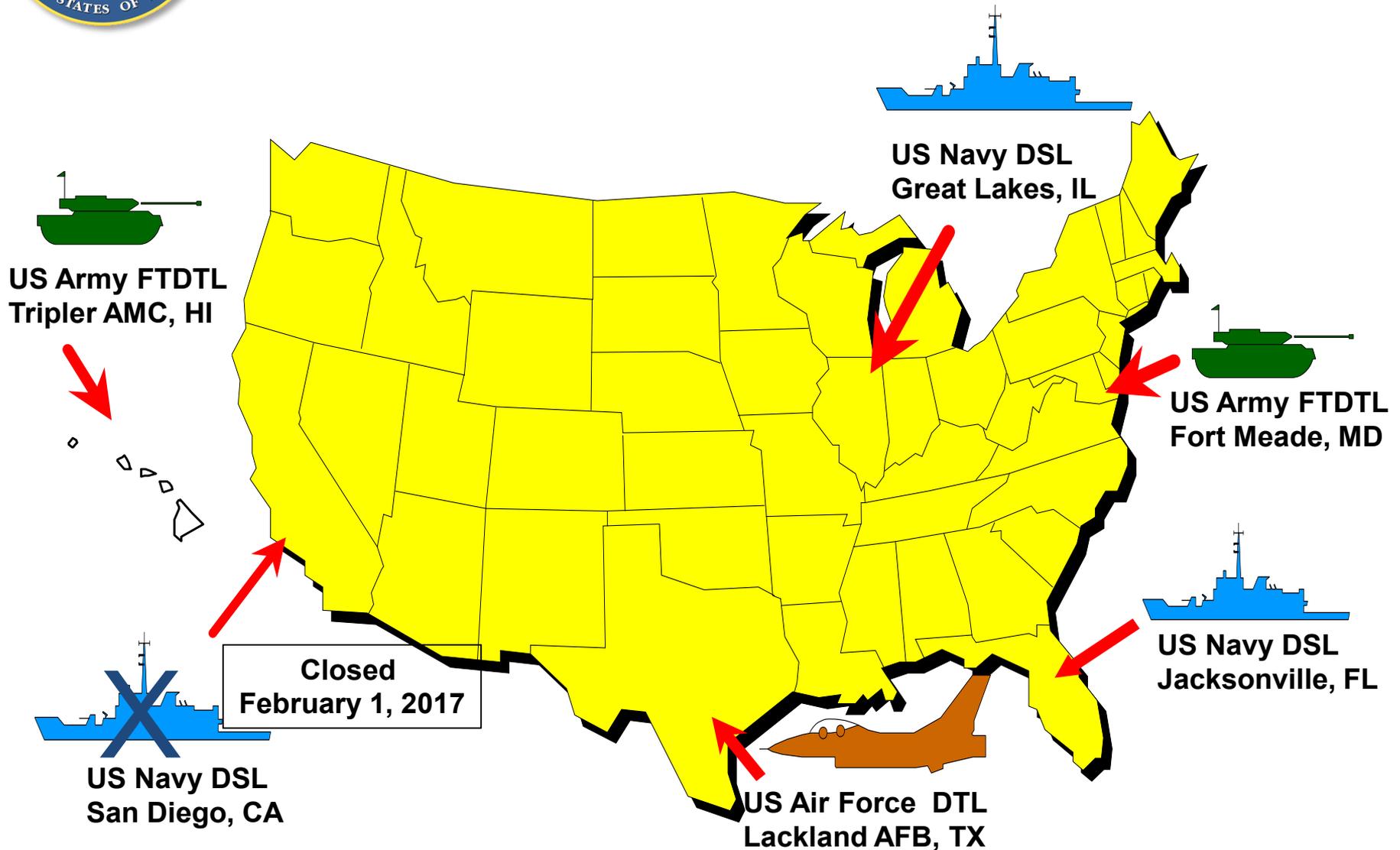


Military Drug Positive Rates



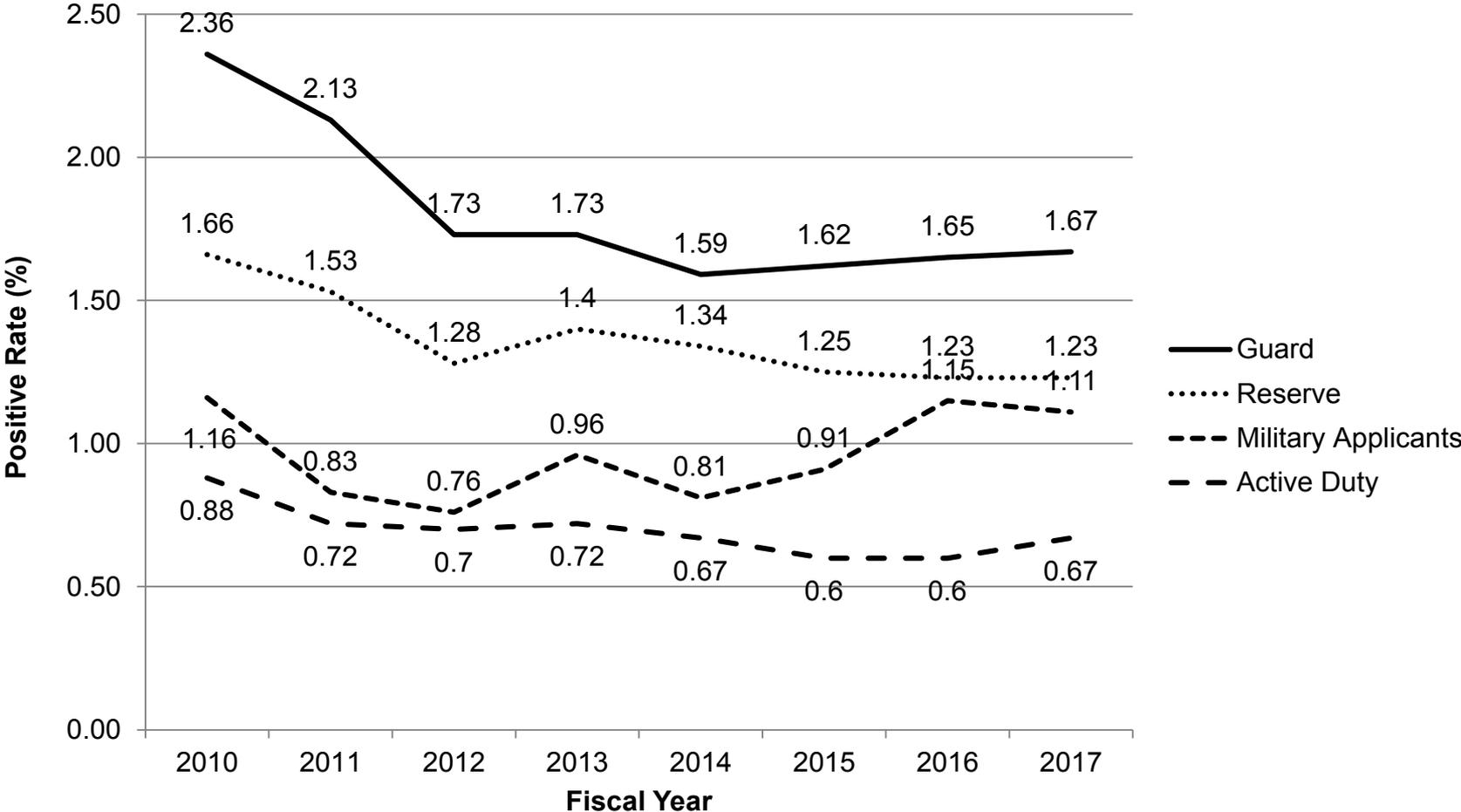


DoD Laboratories





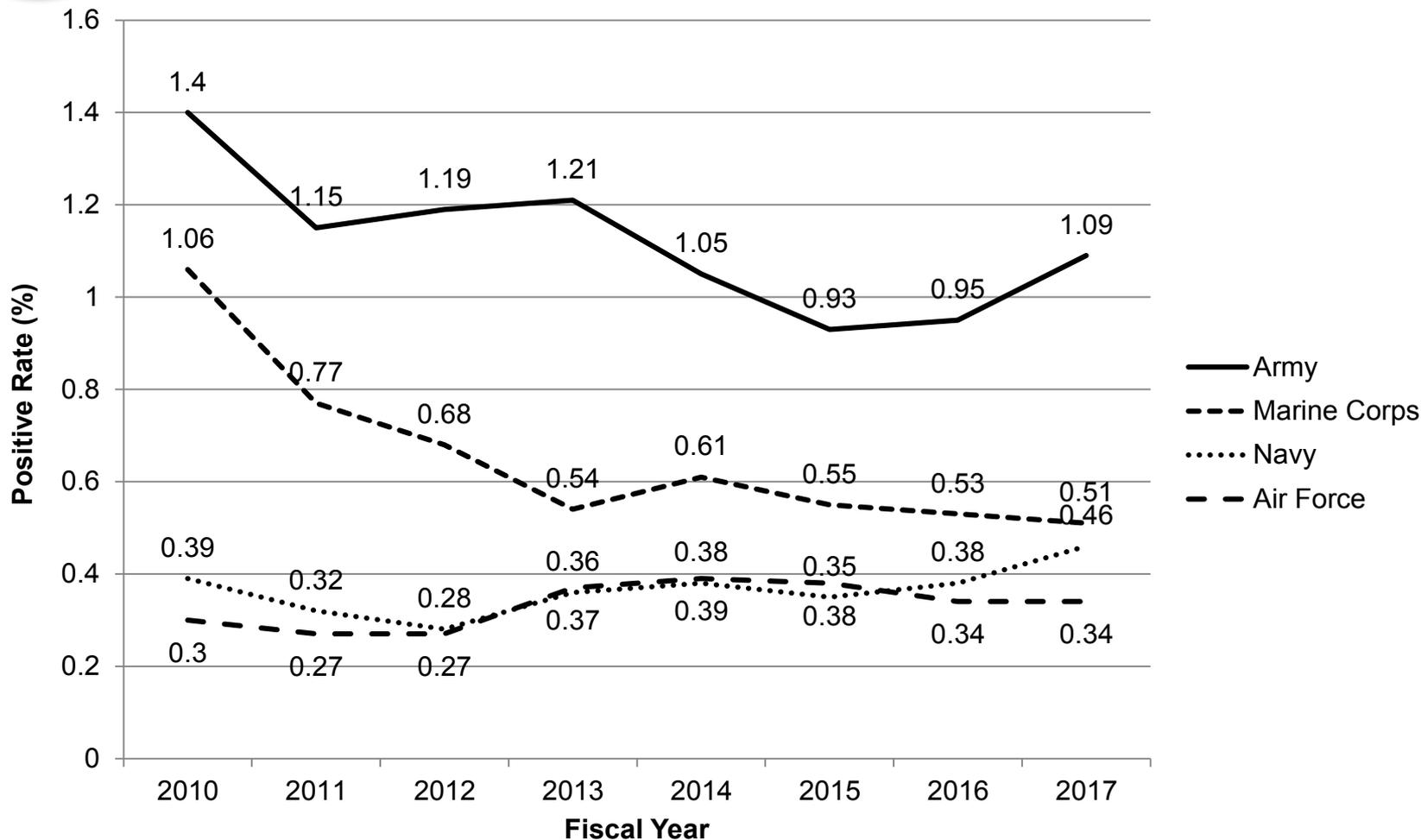
Positive Rate by Component



Note: Guard and Reserve not on active status

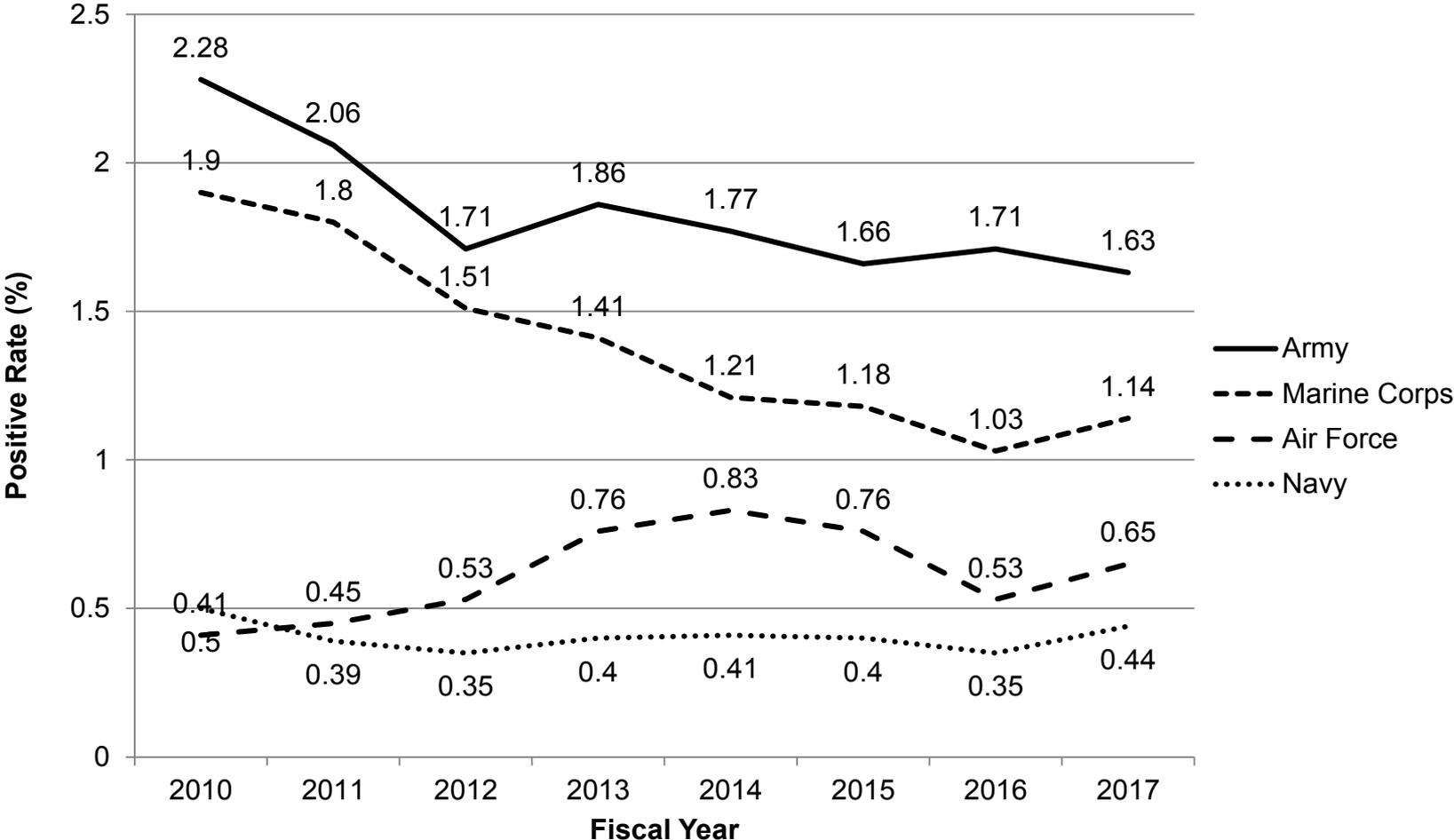


Positive Rate by Active Component





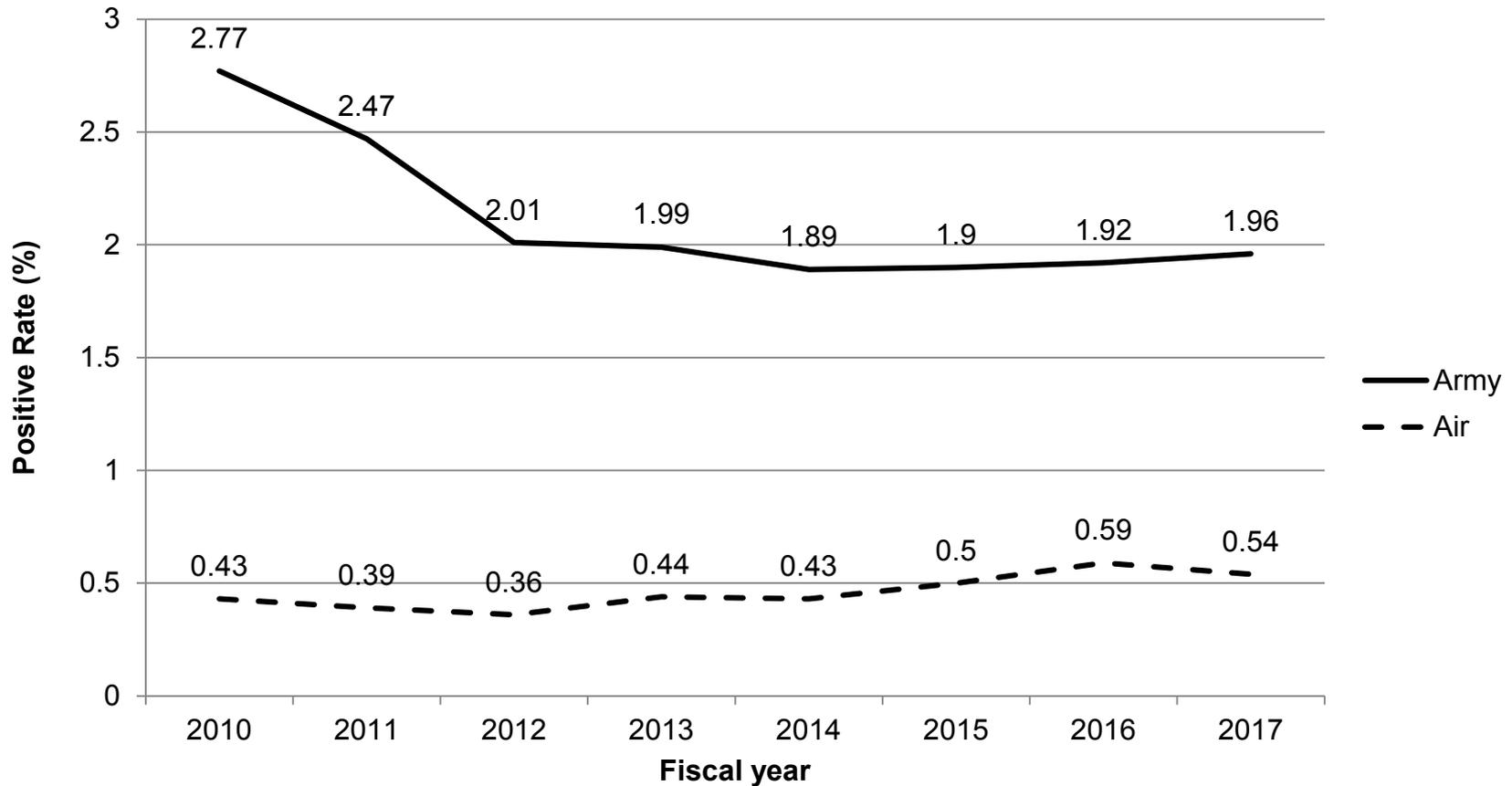
Positive Rate by Reserve Component



Note: Guard and Reserve not on active status



Positive Rate by Guard Component



Note: Guard and Reserve not on active status



Current Situation

(Positive Drug Distribution)

Total DoD Drug Positive Rates per 100,000 Unique Service Members Tested

Fiscal Year	2012	2013	2014	2015	2016	2017
Total DoD Drug Positive Rates per 100,000 Unique Service Members Tested	903.2	929.3	896.3	843.1	847.3	884.5
Marijuana	636.6	611.7	592.1	587.1	615.0	649.3
Cocaine	136.0	94.7	101.4	99.3	125.1	150.3
d-amphetamine	82.2	74.1	69.0	63.3	52.0	57.9
d-methamphetamine	35.8	31.9	29.0	28.4	22.5	27.9
MDMA (Ecstasy)	8.8	9.0	10.0	13.6	17.6	15.4
MDA (Adam)	5.7	5.7	5.9	10.1	11.6	9.0
Codeine (Corrected for 39% testing in FY 2012)	24.3	15.7	12.0	10.4	7.3	6.0
Morphine (Corrected for 39% testing in FY 2012)	34.2	17.9	13.7	13.0	7.5	6.3
Oxycodone (Corrected for 35% testing in FY 2012)	100.0	59.9	40.3	25.2	17.6	13.9
Oxymorphone (Corrected for 35% testing in FY 2012)	175.1	106.4	70.9	46.7	31.9	25.3
Hydrocodone (Corrected for 39% testing in FY 2012)	39.6	50.0	34.3	20.6	17.4	10.4
Hydromorphone (Corrected for 39% testing in FY 2012)	46.2	54.8	37.3	24.7	17.5	11.3
Heroin	9.9	10.7	10.1	9.8	6.9	4.9
Source: Defense Manpower Data Center						
Unique Service Members Tested in the FY	1,890,690	1,842,019	1,804,592	1,774,675	1,744,855	1,725,060

Since 2013:

- 76% decrease in prescription opioid positive rate
- 54% decrease in heroin positive rate

Cause for concern (since 2013):

- 58% increase in cocaine positive prevalence rate
- 72% increase in Ecstasy positive prevalence rate

Prevalence of marijuana and cocaine

- These two drugs account for 78.2% of the unique positive results
- Next highest is d-amphetamine at 5.7%



Current Situation

(Positive Drug Distribution - Continued)

Total DoD Drug Positive Rates per 100,000 Unique Service Members Tested						
Fiscal Year	2012	2013	2014	2015	2016	2017
Total DoD Drug Positive Rates per 100,000 Unique Service Members Tested	903.2	929.3	896.3	843.1	847.3	884.5
*Synthetic Cannabinoid: 5-fluoro-PB22-3 carboxy Metabolite	NT	NT	NT	NT	0.0	0.0
*Synthetic Cannabinoid: AB-PINACA Metabolite	NT	NT	NT	NT	0.0	0.0
*Synthetic Cannabinoid: MAM-2201 Metabolite	NT	NT	NT	0.0	0.2	0.1
*Synthetic Cannabinoid: AB-CHMINACA Metabolite	NT	NT	NT	0.3	0.4	0.0
*Synthetic Cannabinoid: JWH-018 Acid	NT	NT	13.6	19.2	1.6	0.1
*Synthetic Cannabinoid: JWH-073 Acid	NT	NT	14.2	17.0	1.6	0.0
*Synthetic Cannabinoid: UR-144 Acid	NT	NT	18.3	7.5	0.4	0.2
α-hydroxy-alprazolam (Corrected for 23% testing in FY 2013)	NT	15.3	12.1	11.4	9.8	9.4
Lorazepam (Corrected for 23% testing in FY 2013)	NT	6.4	6.6	4.2	3.9	3.1
Nordiazepam (Corrected for 23% testing in FY 2013)	NT	11.8	7.8	4.6	3.8	2.6
Oxazepam (Corrected for 23% testing in FY 2013)	NT	43.4	31.6	21.8	16.9	12.0
Temazepam (Corrected for 23% testing in FY 2013)	NT	30.4	22.3	15.3	12.2	7.7
Source: Defense Manpower Data Center						
Unique Service Members Tested in the FY	1,890,690	1,842,019	1,804,592	1,774,675	1,744,855	1,725,060
*Synthetic Cannabinoids (Corrected for 42% testing rate CY 2014 Jan - Dec)						
*Synthetic Cannabinoids (Corrected for 42% testing rate in FY 2015)						
*Synthetic Cannabinoids (Corrected for 70% testing rate in FY 2016)						
*Synthetic Cannabinoids (Corrected for 55% testing rate in FY 2017)						

- Significant decline in synthetic cannabinoids use
- Using new versions of the drug?

Since 2013:

- 67% decrease in Benzodiazepine positive rate

Must maintain surveillance to detect novel synthetic compounds entering the drug culture

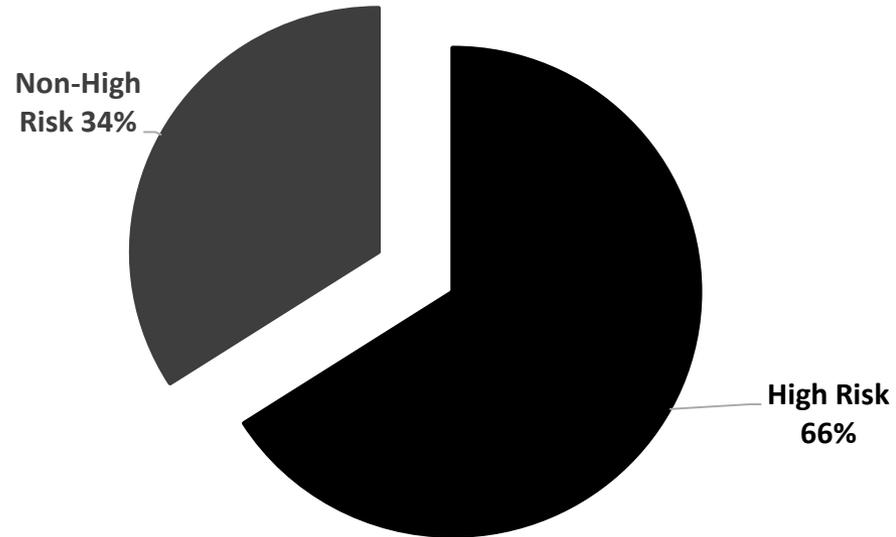


Distribution of Drug Positive Personnel

Tested Service Member Distribution



Distribution of Drug Positives

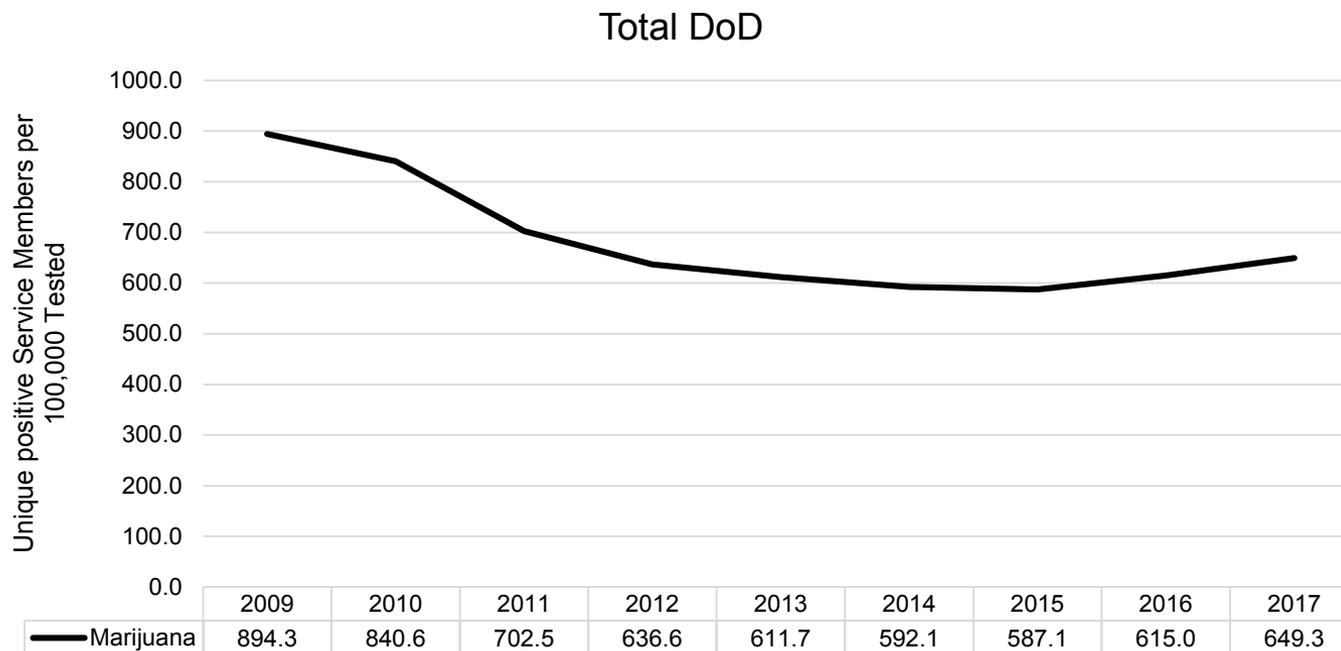


High Risk = 18-25 year old enlisted males account for 66% of drug positive Service members, yet only account for 37% of those tested.



Marijuana Use Trends

- Accounted for 73.4% (11,200 out of 15,259) of all drug positive Service members in FY2017
- Accounted for 96.0% (2,873 out of 2,994) of all drug positive applicants in FY2017
- Positive rate, per 100,000 unique Service members, increased 10.6% (587.1 to 649.3) from FY2015 to FY2017, after years of decline





DoD Civilian Testing Results

FY	TDPs Tested	TDPs Positive	TDP Positive Rate	Applicants Tested	Applicants Positive	Applicant Positive Rate	<i>Combined Positive Rate</i>
2017	120119	391	0.33	34092	110	0.32	0.32
2016	119039	354	0.30	42479	111	0.26	0.29
2015	115536	393	0.34	40158	107	0.27	0.32
2014	116108	413	0.36	27845	77	0.28	0.34
2013	117041	443	0.38	24146	97	0.4	0.38
2012	114374	420	0.37	30295	121	0.4	0.37





Surveillance Efforts

Sample Pool

- Groups of 2,000 specimens evaluated each round
- Specimens screened positive but confirmed negative at the drug testing laboratories
- Reasonable suspicion/probable cause specimens submitted to Armed Forces Medical Examiner System, Division of Forensic Toxicology
 - Law enforcement cases
 - Mishap investigations

New 202 (+27)-Drug Testing Panel

- Stimulants and Hallucinogens = 45 compounds
- Designer drugs = 75 (+11) compounds
- Synthetic cannabinoids = 46 (+16) compounds
- Benzodiazepines = 36 compounds



Surveillance Efforts: Stimulants and Hallucinogens

Total Specimens Containing at Least 1 Hallucinogen/Stimulant Drug*			101		Number of Specimens from Drug Labs Containing Hallucinogen/Stimulant Drug		26
Compound	Surveillance 2000	Surveillance 4000	Surveillance 6000	Surveillance 8000	Surveillance 10,000	Surveillance 12,000	Surveillance 14,000
3-FPM	0	0	0	2	X	X	X
5-APB	1	0	1	0	X	X	X
5-EAPB	1	0	0	0	X	X	X
6-APB	1	0	1	0	X	X	X
6-MAPB	1	0	0	0	0	0	0
AMT	0	1	0	0	0	0	0
DMT	0	0	0	1	0	0	0
Escaline	X	X	X	X	5	5	3
Ketamine/Norketamine	9	17	7	9	9	7	6
LSD/2-oxo-3-OH-LSD	X	X	X	X	1	3	0
NBOMe	2	0	0	0	0	0	0
PCP	0	0	0	0	0	2	0
Psilocin	2	0	0	0	2	2	0

*Including specimens received from the Division of Forensic Toxicology and DOD

X: represents drugs not evaluated in a panel

- Persisting from last round: escaline (3), ketamine/norketamine (6);
- Not observed since last round: LSD, PCP, or psilosin



Surveillance Efforts: Designer Drugs

Total Specimens Containing at Least 1 Designer Drug*		233	Number of Specimens from Drug Labs Containing Designer Drug				111
Compound	Surveillance 2000	Surveillance 4000	Surveillance 6000	Surveillance 8000	Surveillance 10,000	Surveillance 12,000	Surveillance 14,000
a-PHP (Bath Salts)	1	0	0	0	0	0	0
a-PVP (Bath Salts)	0	0	2	0	0	2	0
Cathinone	0	0	0	0	3	1	1
D2PM	7	22	28	6	0	0	0
Dimethylone	0	0	0	0	3	3	1
Diphenidine	1	0	0	0	0	0	0
Ethcathinone (EEC)	0	0	1	2	0	0	0
Ethylone (Bath Salts)	2	4	3	0	0	0	0
Eutylone (Bath Salts)	0	1	0	0	0	0	0
Fentanyl/Norfentanyl	2	2	9	6	38	29	22
MDMA	0	0	0	0	0	1	0
Mephedrone	0	0	0	0	0	2	1
Methylone	0	0	0	0	0	3	0
MPA	1	3	0	0	0	1	0
Pentadrone	0	0	0	0	1	0	0
PV9	0	0	0	0	3	15	0

*Including specimens received from the Division of Forensic Toxicology and DOD

- Persisting from last round: cathinone (1), dimethylone (1), fentanyl/norfentanyl (22), mephedrone (1)
- Not observed since last round: α -PVP, MDMA, methylone, MPA, PV9



Surveillance Efforts: Synthetic Cannabinoids

Total Specimens Containing at Least 1 SyCan Drug Metabolite*			105			Number of Specimens from Drug Labs Containing a SyCan Drug Metabolite			91	
Compound	Surveillance 2000	Surveillance 4000	Surveillance 6000	Surveillance 8000	Surveillance 10,000	Surveillance 12,000	Surveillance 14,000			
5F-AB-PINACA	0	0	5	0	1	0	0			
5F-AB-PINACA N-4-OH	0	1	7	0	0	0	0			
5F-ADB Met. 7	x	x	x	x	x	x	x		8	
5F-PB-22 3-Carboxyindole	1	5	1	0	0	2	0		0	
AB-CHMINACA	1	0	0	0	0	0	0		0	
AB-CHMINACA metabolite 4	0	0	1	0	0	4	1			
AB-FUBINACA	0	0	1	0	0	2	2			
AB-FUBINACA metabolite 2	0	1	2	0	0	0	0		0	
AB-PINACA N-5-COOH	0	2	10	0	2	0	0		0	
ADB-PINACA N-COOH	0	0	0	0	0	2	1			
BB-22 3-Carboxyindole	0	0	0	0	0	2	0		0	
JWH-018 N-5-COOH	0	2	4	0	1	0	0		0	
JWH-019 N-5-OH	0	0	2	0	0	0	0		0	
JWH-073 N-4-COOH	0	0	4	0	0	0	0		0	
JWH-122 N-5-OH	0	3	0	0	0	0	0		0	
JWH-250 N-5-COOH	0	0	4	0	1	0	0		0	
JWH-250 N-5-OH	0	0	2	0	1	0	0		0	
MAM-2201 N-5-COOH	0	3	0	0	0	0	1		1	
MMB-FUBINACA	x	x	x	x	x	x	x		1	
MDMB-FUBINACA met. 1	x	x	x	x	x	x	x		1	
PB-22 3-Carboxyindole	0	1	1	0	0	2	0		0	
UR-144 N-5-COOH	1	0	1	0	2	0	0		0	
XLR-11 N-4-OH	0	0	1	0	1	0	0		0	

*Including specimens received from the Division of Forensic Toxicology

X: represents drugs not evaluated in a panel

- Persisting from last round: AB-CHMINACA met-4 (1), AB-FUBINACA (2), ADB-PINACA(1)
- Newly observed: 5F-ADB met-7 (8), MAM-2201 (1), MMB-FUBINACA (1), MDMB-FUBINACA met-1 (1)
- Not observed since last round: three carboxyindoles



Surveillance Efforts: Benzodiazepines

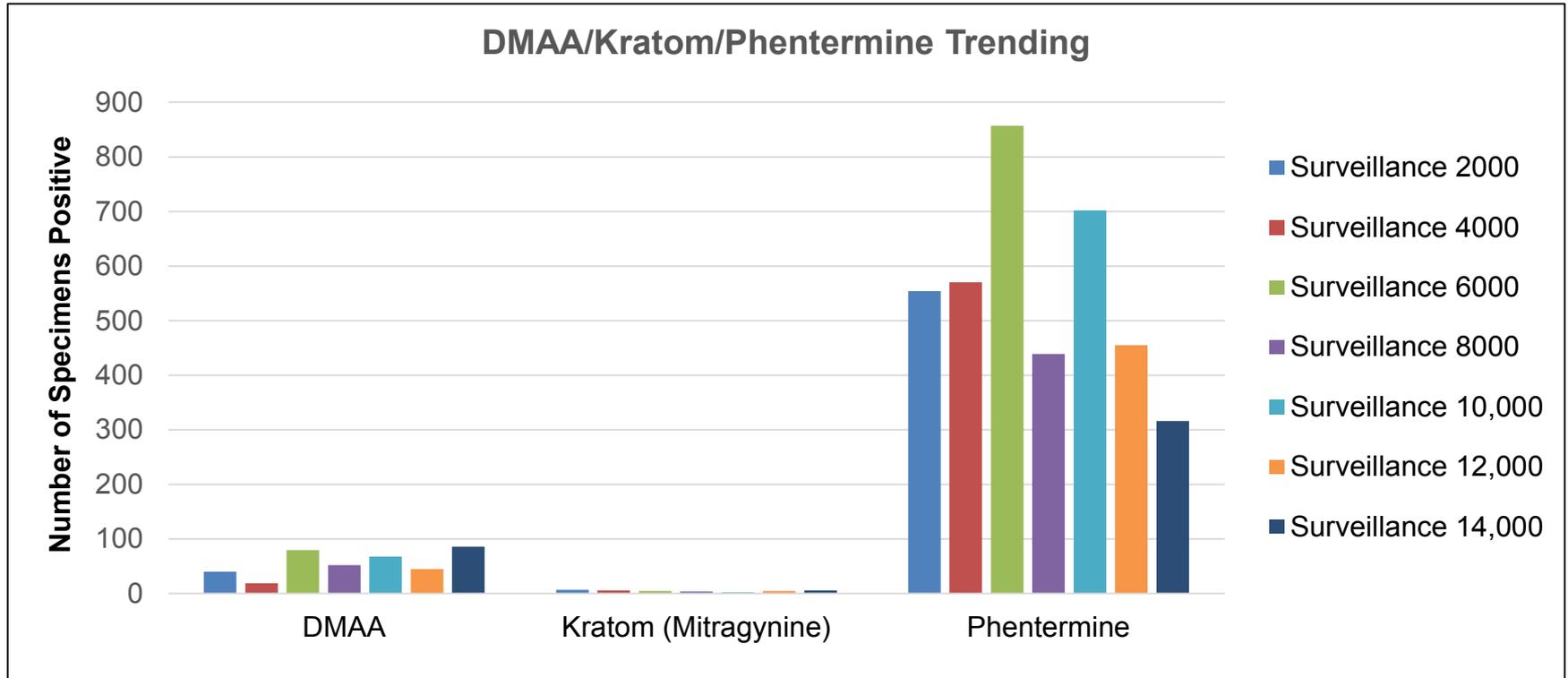
Total Specimens Containing at Least 1 Benzodiazepine*						559	
Compound	Surveillance 2000	Surveillance 4000	Surveillance 6000	Surveillance 8000	Surveillance 10,000	Surveillance 12,000	Surveillance 14,000
Alprazolam/alpha-hydroxyalprazolam	11	17	10	3	0	1	3
Clobazam	X	X	X	X	1	0	0
Clonazepam/7-Aminoclonazepam	34	51	32	15	5	8	9
Estazolam	X	X	X	X	1	0	1
Etizolam	0	0	0	0	1	1	0
Lorazepam	1	2	3	0	0	0	0
Midazolam/alpha-hydroxymidazolam	45	41	70	59	7	8	31
Nitrazepam	X	X	X	X	1	0	0
Oxazepam/Temazepam/Nordiazepam	20	20	15	8	0	0	18
Triazolam/alpha-hydroxytriazolam	1	3	1	0	0	1	0

*Including specimens received from the Division of Forensic Toxicology
X: represents drugs not evaluated in a panel

- Increase noted for midazolam and oxazepam/temazepam/nordiazepam since last round



Surveillance Efforts: Other Stimulants



- **Kratom** (mitragynine) abuse in our military population appears low compared to reports in the civilian population
- **Phentermine** is the most prevalent drug detected
- **DMAA** increased 52% since last round



Recent and Ongoing DoD Initiatives

- **Continue the Expanded Synthetic Cannabinoid, Opiate and Benzodiazepine Prescription Drug Testing**
- **Aligned the Recruit (MEPS) and Military drug testing panels in FY 2017**

Drug	Positives
Benzodiazepines	65
Codeine/Morphine	9
Synthetic Cannabinoids	1
Oxycodone/Oxymorphone/ Hydrocodone/Hydromorphone	36

- **Near real-time emerging drug surveillance testing**
 - Proactively monitor and identify novel / emerging drug use by Service members
 - Armed Forces Medical Examiner System, Special Testing Section within Forensic Toxicology
- **Closed the Navy Drug Screening Laboratory at San Diego in February 2017**
 - Redistribution of workload and assets to the five other drug testing laboratories
 - Cost abatement to cover surveillance testing and increased testing panel reagents, supplies, etc.
- **On-going Investment in Robotics Technologies**
- **Monitor Possible Resurgence in LSD and PCP Abuse**
- **Expand civilian testing rate from 50% to 75% of FTEs in TDPs.**



Challenges

- 'High risk' (18-25 year old, Enlisted males)
 - 37% of those tested in FY17
 - Accounts for 66% of drug positive results
- Prescription drug abuse / misuse crosses all age groups and military personnel components
- Historically, Guardsmen and Reservists have significantly higher drug positive rates than their Active Component counterparts
- Agility in responding to emerging drug threats, such as novel synthetic cannabinoids
 - Slow to implement new technologies: LCMSMS, Rapid Fire-MSMS, Automated Liquid Handling (multi-well plates)
- Filling critical vacancies / Staffing



Bottom Line Goals of the ODDR

- Provide a safe, secure, mission ready Total Force
- Effectively deter and detect drug abuse through frequent random testing
- Raise the perceived risk of detection above any desire to use illicit drugs or misuse / abuse prescription medications
- Educate Service members on the adverse consequences of drug use
- Separate Service members guilty of drug abuse from Military Service
- Provide a drug-free work place and family / community environment
- Sustain funding levels required to support the ODDR mission
- Ensure the reporting of drug positive Service members is integrated into the Defense Information System for Security (DISS)

