HIV Infection in the US Military: Update and Policy Implications

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Walter Reed National Military Medical Center

Disclaimer

The views expressed in this lecture are my own and should not be construed to represent the positions of the US Army, US Navy, US Air Force, or the Department of Defense.

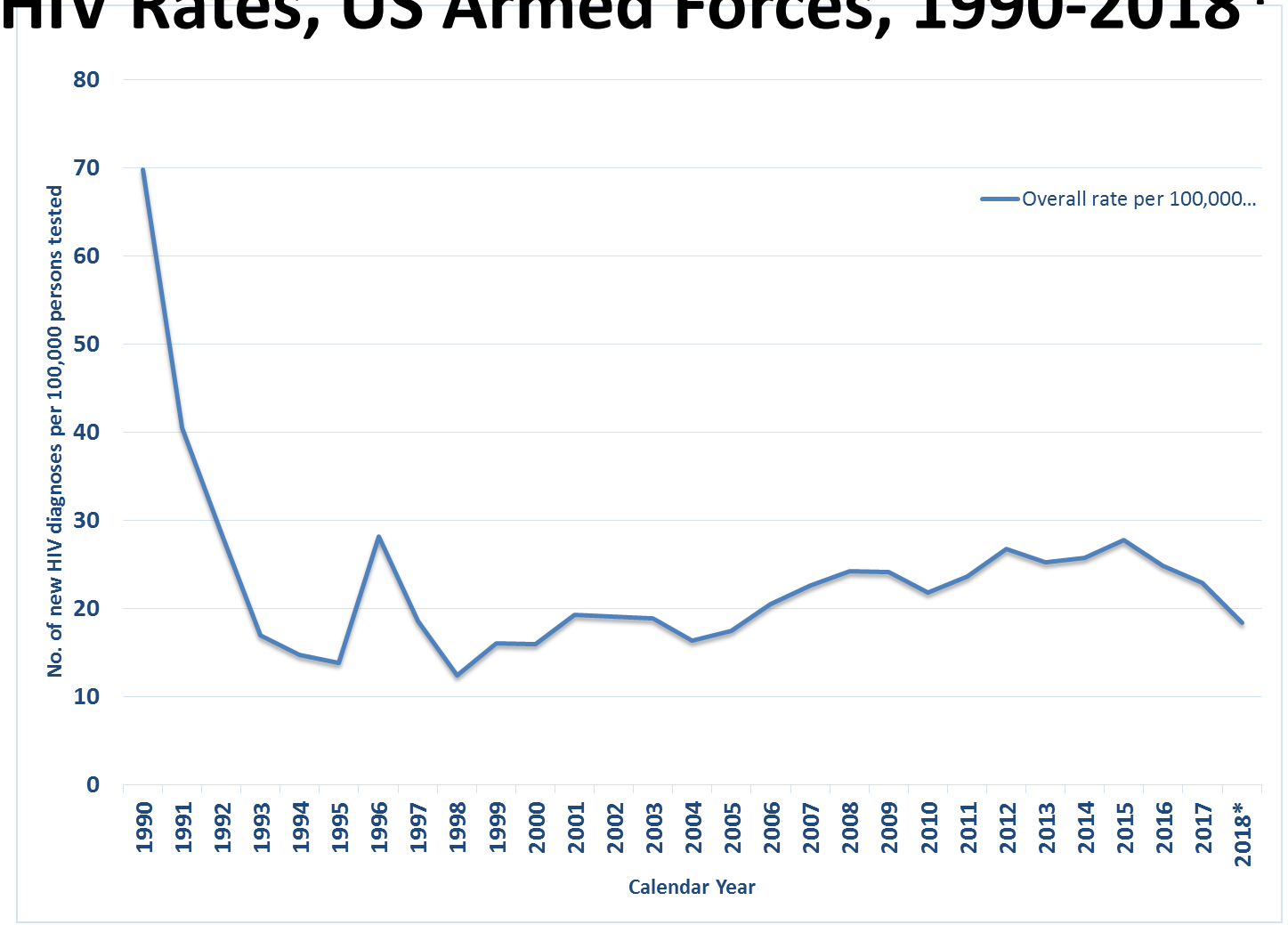
Agenda

- HIV Epidemiology in DoD - Overview
- DoD HIV policy
  - Service-specific policy updates
- Under Sec Def memo
  - Deployment implications/issues
  - Proposed COAs
- Update on PrEP uptake in US military

HIV Impact on the Military

- Military mission and troop readiness
  - Incurable
  - Lifelong therapy required
  - High cost
  - Limitations to duty assignments
  - Legacy of “DADT”
- Need for screening measures
  - Accession screening
  - Standard testing: q2 years, w/in 6mo of deployment, STI screens*

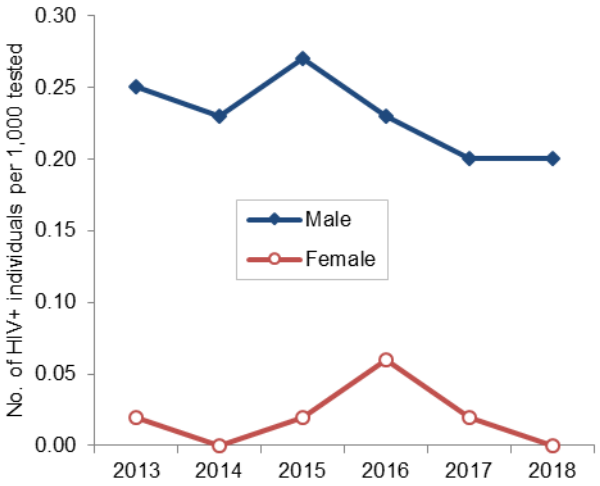
HIV Rates, US Armed Forces, 1990-2018*



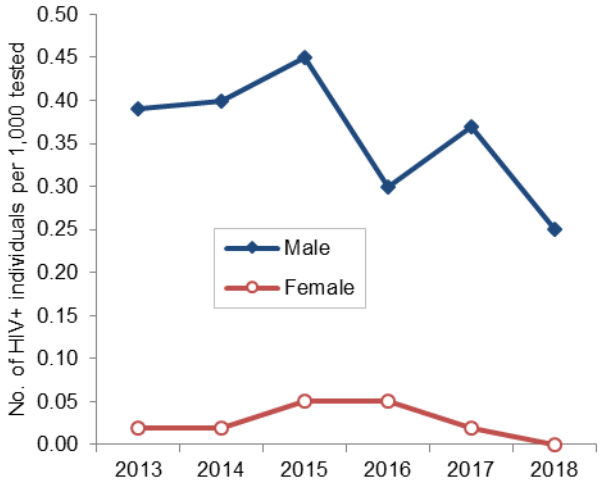
*through August 6, 2018

New HIV Dx Trends Across Services

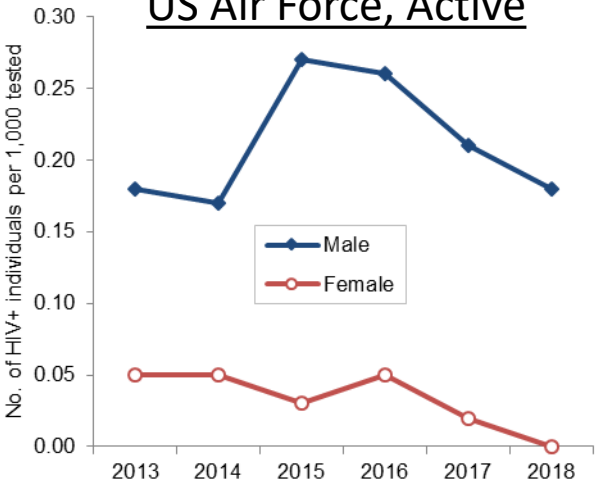
US Army, Active



US Navy, Active



US Air Force, Active



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2016-2017 HIV Infections by Service

Air Force (Source: SAMMC extract, Dr. Okulicz)
2016: AD - 41, NG - 2, R- 4, TOT=47
2017: AD - 32, NG - 0, R- 2, TOT=34

Army (Source: AFHSB extract from StephanieScoville)
2016: AD - 60, NG - 59,R - 39, TOT=158
2017: AD - 51, NG - 53,R - 37, TOT=141

Navy/Marines
2016: USN – AD (54), Res (8), USMC – AD (16), Res (6); TOT= 84
2017: USN – AD (66), Res (8), USMC – AD (21), Res (8); TOT =103

2016-2017 HIV Infections by Service

HIV Infections, across all Services

Army: ~925

Navy: ~479

Marine Corps: ~99

Air Force: ~274

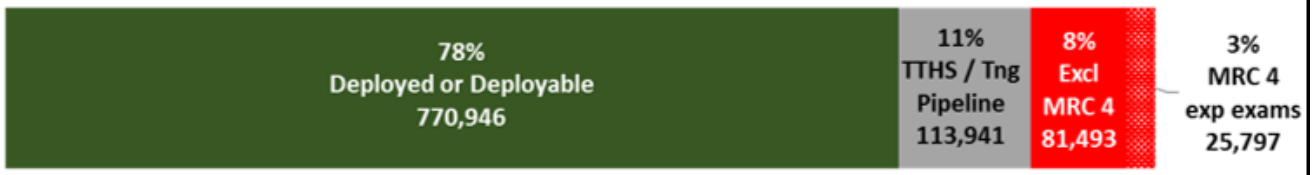
Navy/Marines

2016: USN – AD (54), Res (8), USMC – AD (16), Res (6); TOT= 84

2017: USN – AD (66), Res (8), USMC – AD (21), Res (8); TOT =103

Army Monthly Snapshot (as of 30 Jun 18)

~107K Non-deployable Soldiers (11% of Army)



Army Strength (Jun 18):992,177

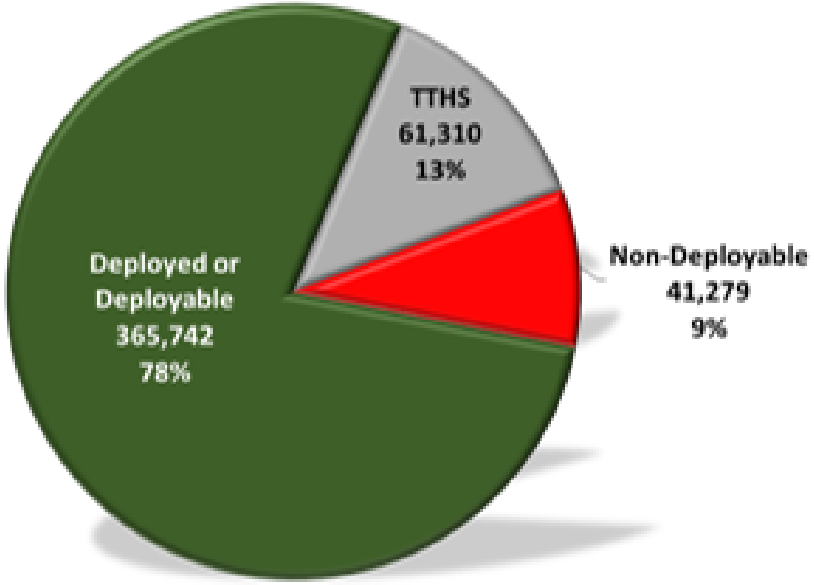
11% Non-deployable incl MRC 4 exp exams 107,290

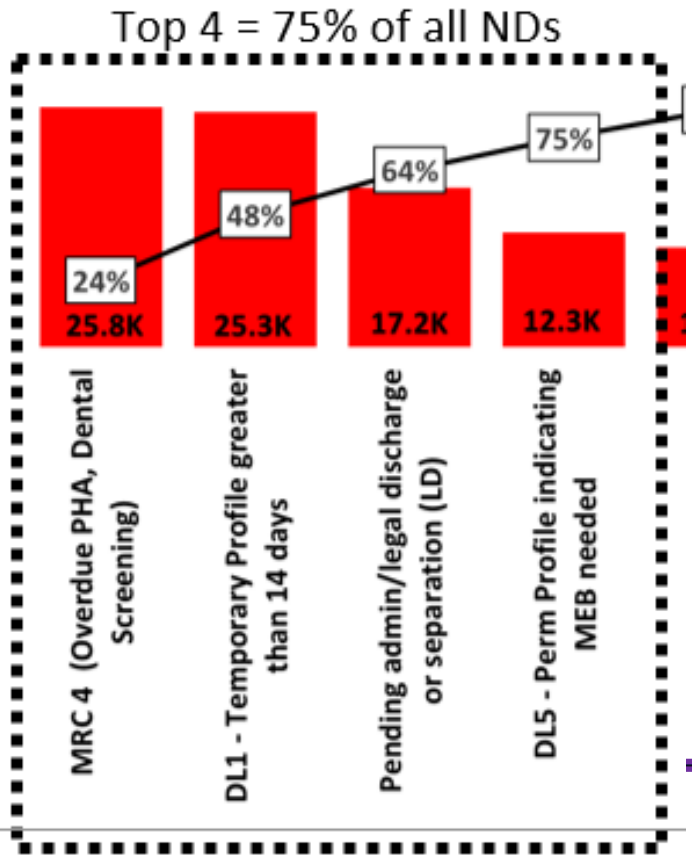
As of 30 Jun 18		Non-deployable		Expired Exams		Non-deployables excl expired exam	
Compo	Strength	Total	%	Total	%	Total	%
RA	468,331	41,279	9%	9,724	2%	31,555	7%
ARNG	334,459	39,076	12%	8,844	3%	30,232	9%
USAR	189,387	26,935	14%	7,229	4%	19,706	10%
ARMY	992,177	107,290	11%	25,797	3%	81,493	8%

Total Army Personnel Deployability Abstract (EOM JUN2018)

Regular Army Snapshot

RA Strength (Jun 18): 468,331





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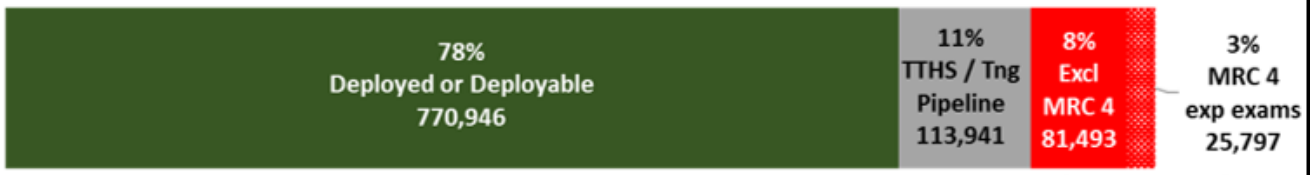


Army Strength (Jun 18):992,177

11% Non-deployable

As of 30 Jun 18	
Compo	Strength
RA	468,331
ARNG	334,459
USAR	189,387
ARMY	992,177

BLUF

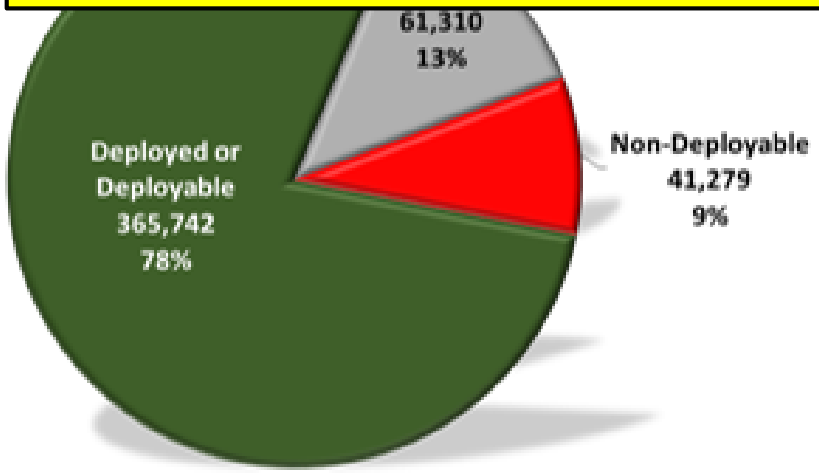
107K Non-deployable SMs

85K (~79%) are Medical

15.2K Permanent Non-deployable

(1.5% of total Army Forces)

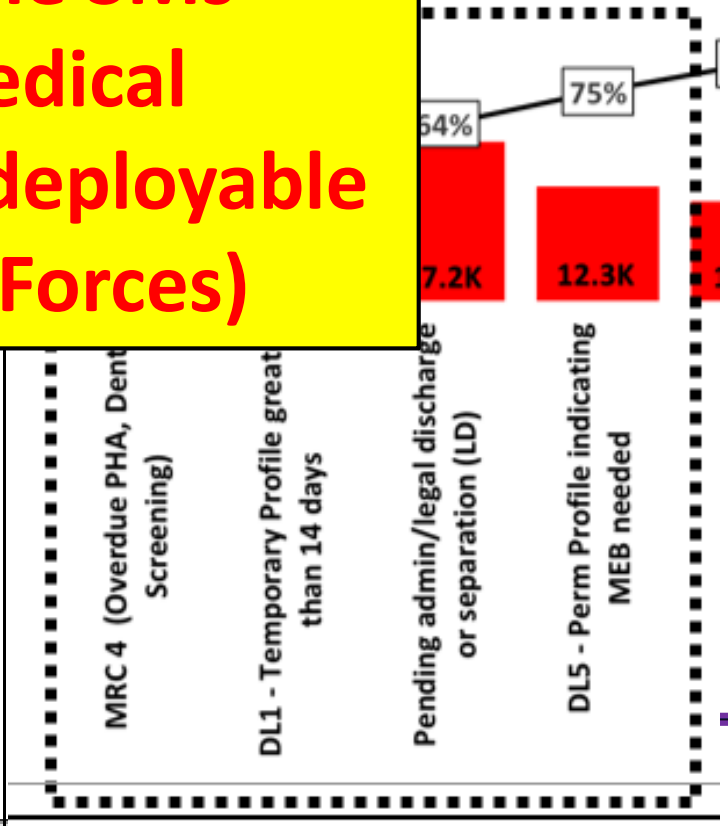
RA Strength
(Jun 18): 468,331



Total Army Personnel Deployability Abstract

UN2018)

of all NDs



HIV Infection in the Army (AUG2018)

- ~ 925 US Army SMs with HIV
  - Compo 1 (AC): 418; Compo 2 (NG): 263; Compo 3 (Res): 244
- Median age: 27 years old
- 74% non-Caucasian
- 64% assigned to a southern US command at dx
- 0.86% of non-deployable personnel
  - 6% of permanent non-deployable
- Median time in service after diagnosis: 3 ½ years

AFHSB August 6, 2018; Plos One 2017 Jul 31;12(7);
HQDA, ODCS G-1. Source: eMILPO, EOM JUN2017.

HIV Care: Estimated Cost to DoD

- ~ $25K per infected SM/year*
  - $17-18K/yr for ART**
  - $6-7K/yr for staging labs, clinical evaluations
  - $1-2K/yr for travel/lodging/admin logistics

~ $450K/person lifetime cost of HIV care***

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*Current CDC estimates from: Gebo KA, et al. AIDS 2010
**Courtesy of DHA Pharmacy Operations Division, unpublished data.
***Farnham PG, et al. J Acquir Immune Def Syndr 2013.

Department of Defense
INSTRUCTION

NUMBER 6485.01
June 7, 2013

USD(P&R)

SUBJECT: Human Immunodeficiency Virus (HIV) in Military Service Members

b. In accordance with DoDI 6490.07 (Reference (j)), the cognizant Combatant Command surgeon will be consulted in all instances of HIV seropositivity before medical clearance for deployment.

3. TRANSMISSION CONTROL. Transmission of HIV will be controlled through aggressive disease surveillance and health education programs for Service members. A Service member with laboratory evidence of HIV infection will receive training on the prevention of further transmission of HIV infection to others and the legal consequences of exposing others to HIV infection.

Executive Services Directorate. http://www.esd.whs.mil/Directives/issuances/dodi/

Department of Defense

INSTRUCTION

NUMBER 6490.07
February 5, 2010

USD(P&R)

SUBJECT: Deployment-Limiting Medical Conditions for Service Members and DoD Civilian Employees

(2) A diagnosis of human immunodeficiency (HIV) antibody positive with the presence of progressive clinical illness or immunological deficiency. The cognizant Combatant Command surgeon shall be consulted in all instances of HIV seropositivity before medical clearance for deployment.

Army Regulation 600–110

Headquarters
Department of the Army
Washington, DC
22 April 2014

Identification, Surveillance, and Administration of Personnel Infected with Human Immunodeficiency Virus

HIV-infected Soldiers will **NOT**:
- be deployed or assigned overseas
- Perform official duties overseas for any duration of time

Will **NOT** be assigned to:
- any TO&E unit, and if newly infected, will be reassigned to a TDA unit
- military-sponsored education programs which would result in additional service obligation

ARE eligible for all military professional development schools and military training required to qualify for reclassification to new MOS or skill identifier

Report to the Committees on the Armed Services of the Senate and House of Representatives on Department of Defense Personnel Policies Regarding Members of the Armed Forces Infected with Human Immunodeficiency Virus

2018

Response to Congressional Inquiry re: HIV infection in military

Revisions to AR 600-110*

- Allow for OCONUS assignments
- Recommend against combat deployments
- Recommend against assignment to TO&E units, except by waiver
- Allow for participation in military-sponsored education programs and training

*pre-Sec Def memo; based on 2015 Working Group assessment and 2015 white paper soliciting ID SME opinions

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

SECNAVINST 5300.30E
ASN(M&RA)
13 August 2012

SECNAV INSTRUCTION 5300.30E

From: Secretary of the Navy

Subj: MANAGEMENT OF HUMAN IMMUNODEFICIENCY VIRUS, HEPATITIS B VIRUS AND HEPATITIS C VIRUS INFECTION IN THE NAVY AND MARINE CORPS

a case-by-case basis in consultation with the treating HETU, NBIMC, and PERS-82 or USMC M&RA (if dealing with Marines), certain personnel who are considered to have controlled HIV disease as manifested by a reconstituted immune system, no viremia, an established history of medical compliance, and a history of professional attitude, may be considered for OCONUS or large ship platform tours. This placement will require the receiving command's acceptance. These personnel will not be considered for overseas individual augmentee (IA) tours given the austere environments where they potentially could be placed. This policy

BY ORDER OF THE SECRETARY OF THE AIR FORCE

AIR FORCE INSTRUCTION 44-178

4 MARCH 2014
Certified Current 28 June 2016
Medical

HUMAN IMMUNODEFICIENCY VIRUS PROGRAM

be deployed outside of CONUS (except for Alaska, Hawaii, and Puerto Rico). HIV-infected members shall not be assigned to OCONUS mobility positions, and those on flying status must be placed on Duty Not Including Flying (DNIF) status pending medical evaluation/waiver determination. Waivers are considered using normal procedures established for chronic diseases. Aeromedical waivers are considered according to the Aerospace Medicine Waiver Guide. Members on the Personnel Reliability Program (PRP)

UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-4000

PERSONNEL AND
READINESS

FEB 14 2018

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
CHAIRMAN OF THE JOINT CHIEFS OF STAFF
UNDER SECRETARIES OF DEFENSE
DEPUTY CHIEF MANAGEMENT OFFICER
CHIEF, NATIONAL GUARD BUREAU
DIRECTOR OF COST ASSESSMENT AND PROGRAM EVALUATION

SUBJECT: DoD Retention Policy for Non-Deployable Service Members

In July, the Secretary of Defense directed the Office of the Under Secretary of Defense for Personnel and Readiness (OUSD(P&R)) to lead the Department's effort to identify changes to military personnel policies necessary to provide more ready and lethal forces. In his initial memorandum to the Department, Secretary Mattis emphasized, "[e]very action will be designed to ensure our military is ready to fight today and in the future." Given the Secretary's guidance, OUSD(P&R) moved forward from the underlying premise that all Service members are expected to be world-wide deployable. Based on the recommendations of the Military Personnel Policy Working Group, the Deputy Secretary of Defense determined that DoD requires a Department-wide policy establishing standardized criteria for retaining non-deployable Service members. The objective is to both reduce the number of non-deployable Service members and improve personnel readiness across the force.

UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
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PERSONNEL AND READINESS

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MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
CHAIRMAN OF THE JOINT CHIEFS OF STAFF
UNDER SECRETARIES OF DEFENSE

BLUF

- Non-deployable for > 12 consecutive months – process for administrative separation
- Secretaries of Military Departments authorized to grant waivers of retention
- DoDI in process to provide additional guidance

to ensure our military is ready to fight today and in the future." Given the Secretary's guidance, OUSD(P&R) moved forward from the underlying premise that all Service members are expected to be world-wide deployable. Based on the recommendations of the Military Personnel Policy Working Group, the Deputy Secretary of Defense determined that DoD requires a Department-wide policy establishing standardized criteria for retaining non-deployable Service members. The objective is to both reduce the number of non-deployable Service members and improve personnel readiness across the force.

Not all Deployments are Equal

Considerations for all medical conditions:

- Climate
- Altitude
- Rations
- Housing
- Duty assignment
- Medication re-supply
- Laboratory capabilities

Issues for HIV (and blood-borne pathogens):

- Medication re-supply
- Duty assignment
- Risk of MASCAL scenario
  - "walking blood bank"
- Lack of FDA-approved rapid point-of-care HIV test for blood donation

HIV Transmission risk (CDC data)

Type of Exposure	Risk per 10,000 Exposures
Parenteral	
Blood Transfusion	9,250
Needle-Sharing During Injection Drug Use	63
Percutaneous (Needle-Stick)	23

Patel P, et al. Estimating per-act HIV transmission risk. AIDS 2014.

Alere Determine HIV-1/2 Ag/Ab

- First FDA-approved rapid point-of care test
- CLIA-waived for fingerstick whole blood
- Results in 20 minutes
- 99% sensitivity for all sample types

But...not for blood donation

Potential COAs

(1) Non-deployable, no exceptions

(2) Deployable, with geographic limitations
- USN (and likely USAF) approach

(3) Deployable with waiver/approval
- Modify AR 600-110 to align with DoDI

(4) Exemption from policy

DoD Instruction 1332.45

Retention Determinations for Non-Deployable Service Members

Originating Component:	Office of the Under Secretary of Defense for Personnel and Readiness
Effective:	July 30, 2018
Releasability:	Cleared for public release. Available on the Directives Division Website at http://www.esd.whs.mil/DD/.
Incorporates and Cancels:	Office of the Under Secretary of Defense for Personnel and Readiness Memorandum, "DoD Retention Policy for Non-Deployable Service Members," February 14, 2018
Approved by:	Robert L. Wilkie, Under Secretary of Defense for Personnel and Readiness

DoD Instruction 1332.45

Retention Determinations for Non-Deployable Service Members

3.3. DEPLOYABLE WITH LIMITATIONS. Service members with a medical condition that requires additional medical screening, or Combatant Command approval prior to deployment outside the continental United States, will be categorized as Deployable with Limitations. This includes, but is not limited to, conditions referred to in DoDI 6490.07.

Memorandum, "DoD Retention Policy for Non-Deployable Service Members," February 14, 2018

Approved by: Robert L. Wilkie, Under Secretary of Defense for Personnel and Readiness

DoD Policy Updates: Opportunities for Change?

Align HIV policy across all Services

Increase HIV prevention services

DHA HIV Tri-Service Working Group

- Service leads: Army, Navy, USAF
- Consultants: pharmacy, laboratory, policy
- Report to TSSCAB

Main Goal:

- Align clinical care and admin processes for HIV treatment and prevention services

Service Policy Discrepancies

- US Army:
  - OCONUS/unit assignment restrictions
  - Decentralized tracking

- US Navy:
  - Ship assignments with waivers
  - Centralized tracking – HETU/NBIMC

- US Air Force:
  - OCONUS assignments allowed
  - Required annual visits to SAMMC
  - MEB at diagnosis
  - Centralized tracking

HIV PrEP Update in Military

HIV Risk in the US Military

- US Army, 2012–2014 (n=181)[1]
  - 92% believed HIV exposure was through sexual contact
  - 64% indicated male-male sexual contact
    - 78% MSM only, and 22% with both men and women
- US Navy and Marine Corps, 2005-2010 (n=64)[2]
  - 55% reported MSM only; 30% with both men and women
- USAF, 2010-2014 (n=316)[3]
  - 79% reported same sex contact
    - 71% MSM and 8% bisexual men vs 18% heterosexual men and women

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1-Hakre S, J Acquir Immune Defic Syndr 2015.
2-Hakre S, J Acquir Immune Defic Syndr 2012.
3-Patterson SB. MSMR 2014.

HIV PrEP: Military Provider Surveys, 2016-17

(1599 respondents out of 4217 providers)

- Providers support use of PrEP: Army 82%, Navy, 78%, Air Force 64%
- Patient demand is high: 29-48% of providers were asked about PrEP
- Knowledge among providers is generally low
  - Rated knowledge as “poor”: Army 55%, Navy 41%, Air Force 59%
- 88% support development of DoD HIV PrEP CPG
- >50% are interested in HIV PrEP training opportunities

Hakre S, Medicine 2016; Army and Navy data unpublished

Active Duty SMs on PrEP

- N = 769 AD SMs on PrEP (FEB2014-JUN2016)
- MHS records/DoD pharmacy data review
  - Sole prescriptions for Truvada
    - Excluded HIV, HBV, and PEP
- Data collected:
  - Demographics, Service branch, risk behaviors, MSM risk index, required PrEP labs

Blaylock JM, et al. MMWR Wkly Rep 2018 [awaiting publication].

TABLE. Characteristics of 769 U.S. military personnel on active service without HIV infection, who initiated human immunodeficiency virus preexposure prophylaxis, February 1, 2014–June 10, 2016

Characteristics	n (%)
Total	**769 (100)**
Sex	
Male	759 (99)
Female	10 (1)
Age (yrs)	
18–28	449 (58)
29–40	263 (34)
41–48	44 (6)
≥49	13 (2)
Race	
White	361 (47)
Black	149 (19)
Other*	259 (34)
Service	
Army	207 (27)
Navy	364 (47)
Air Force	158 (21)
Marine Corps	40 (5)
Education, highest level	
High School or less	451 (59)
Some College	84 (11)
Bachelor's degree	120 (16)
Higher than Bachelor's degree	81 (11)
Unknown	33 (4)

*"Other" includes American Indian/Alaskan native, native Hawaiian/Pacific Islander, Asian, and unknown.

42% > 28yrs old

Only 19% blacks

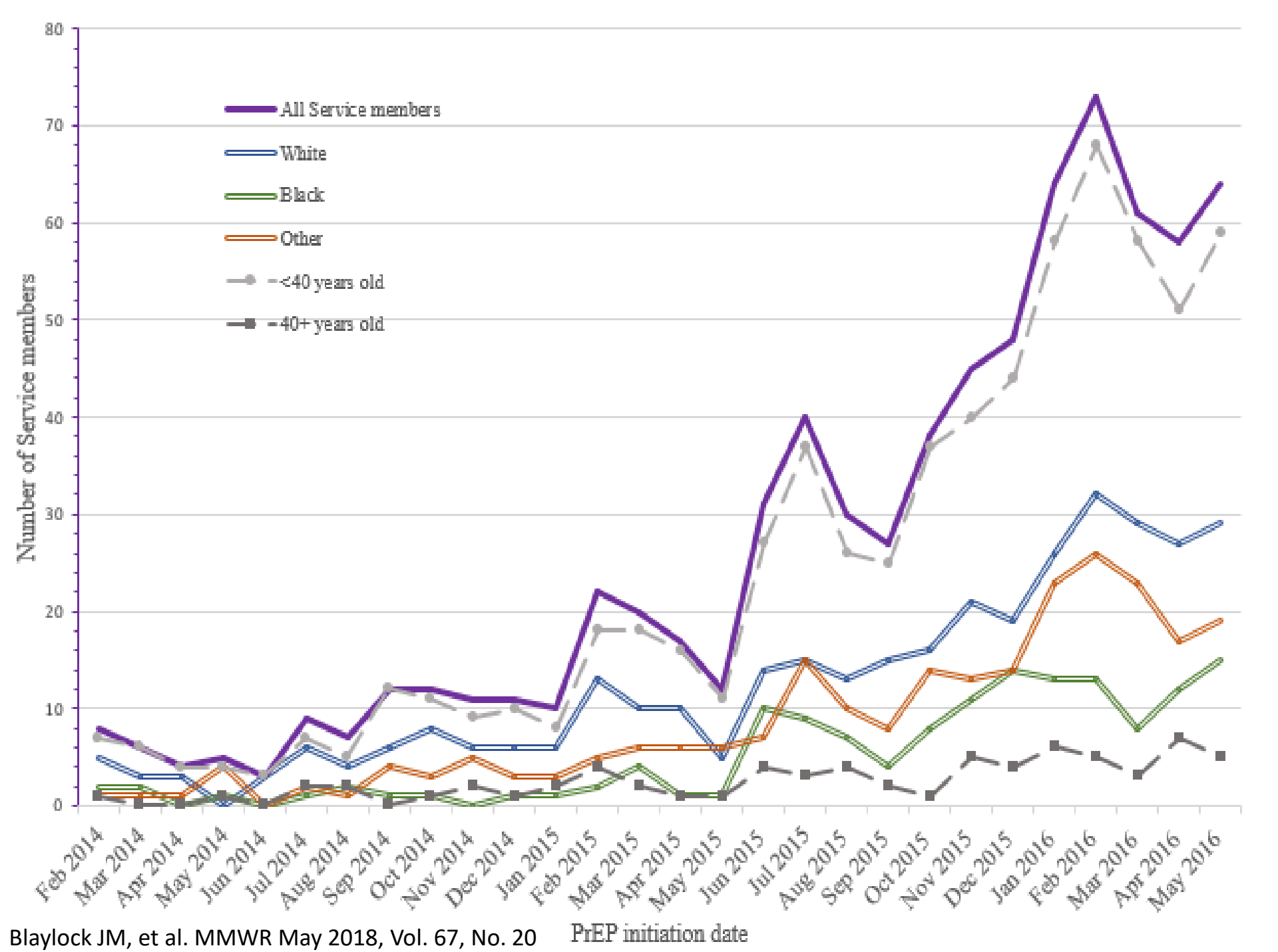
87% identified as MSM

30% serodiscordant

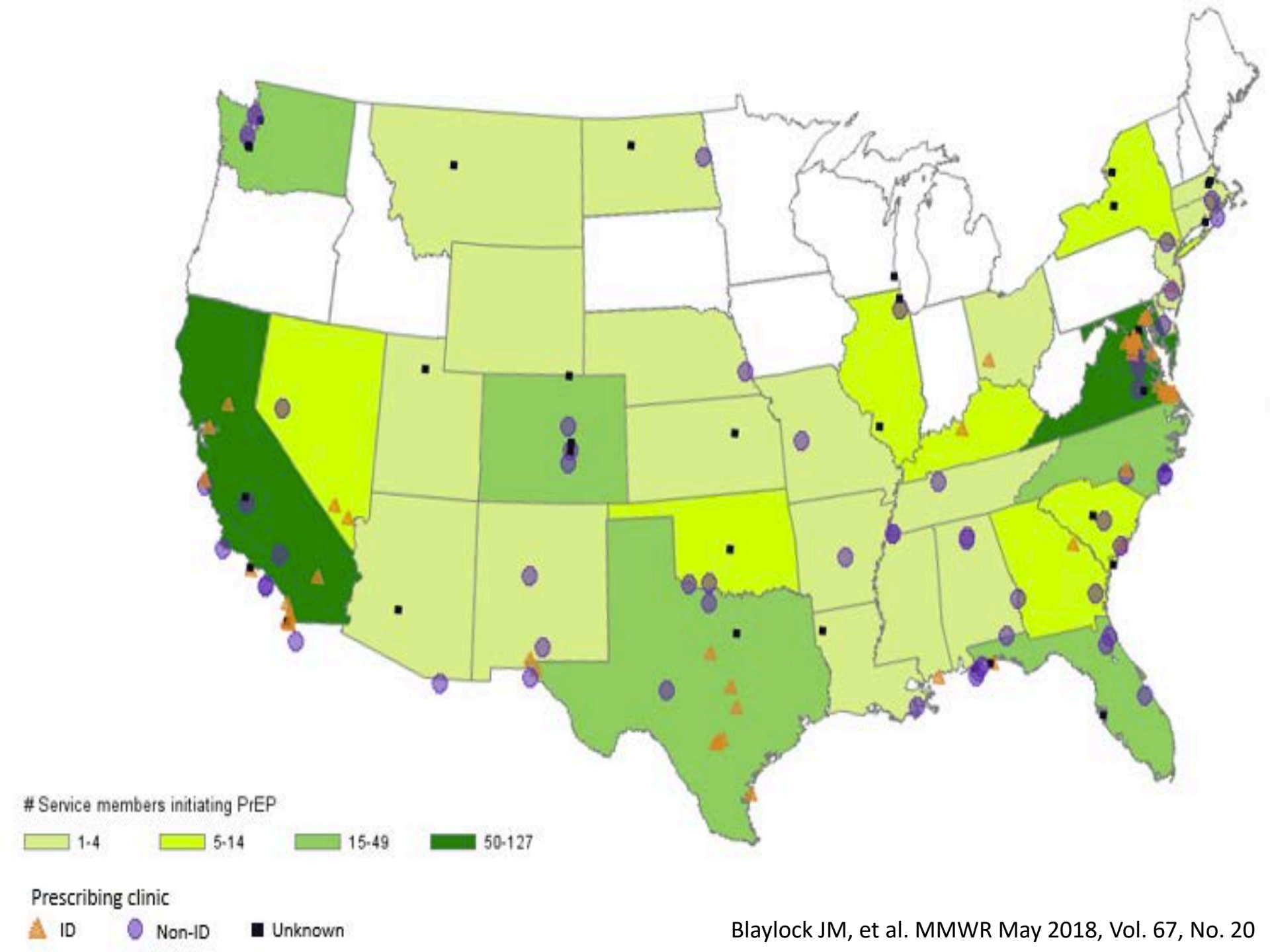
20% with MSM risk scores

- 28% were < 10

Blaylock JM, et al. MMWR May 2018, Vol. 67, No. 20



Blaylock JM, et al. MMWR May 2018, Vol. 67, No. 20



Blaylock JM, et al. MMWR May 2018, Vol. 67, No. 20

PrEP: Potential Cost to DoD

Assumptions:

- Males constitute 85% of 1.3 million AD SMs
- 4.23% are MSM
- 25% of MSM have increased risk for HIV infection
- Annual cost of Truvada to DoD is $12K/person/yr

~ > $140 million/year

Hoover KW, et al. PLoS One 2017.
Smith DK, et al. MMWR Morb Mortal Wkly Rep 2015.
National Acquisitions Center, US Dept of VA. Pharmaceutical Catalog, 2017.

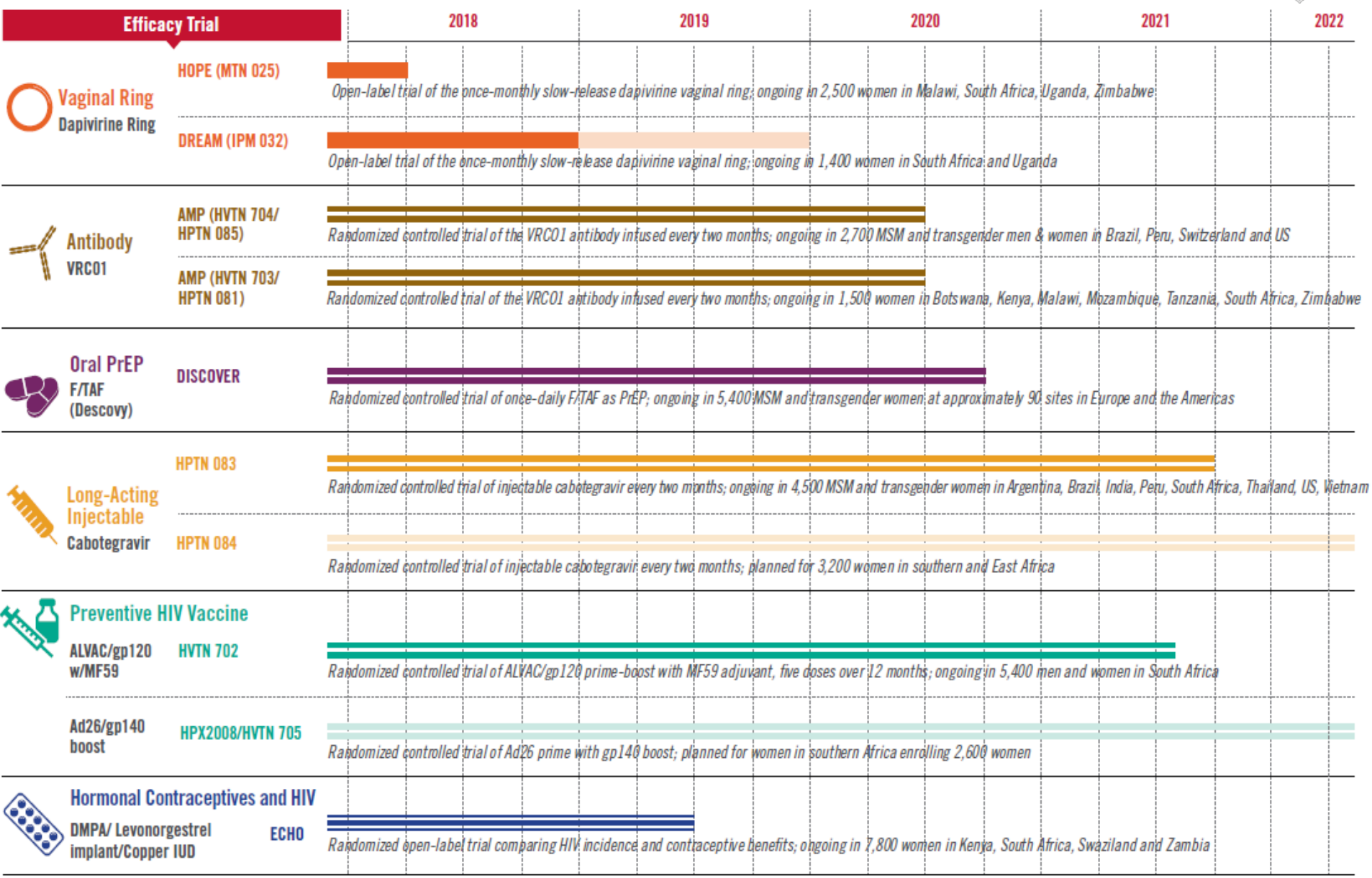
Next Steps for PrEP Research

- Risk compensation on PrEP
  - STI rates pre- and post-PrEP
- Duration of PrEP use
  - Further inform financial cost to DoD
- Gaps in care
- Targeting nPEP transitions to PrEP
- Targeting high risk groups
  - Social Vaccine campaign (app-based)

AVAC
Global Advocacy for HIV Prevention

The Years Ahead in Biomedical HIV Prevention Research

Status of select biomedical HIV prevention clinical trials



PrEP Rollout - DoD

DHA Interim Procedures Memorandum –in development

Ensure pathways for PrEP:

- Larger MTFs typically utilize ID specialists
- Smaller MTFs
    - Need for providers as “early adopters” of PrEP
    - Alternative option: refer off base to PrEP-friendly civilian providers
- PrEP education resources:
    - PrEP “toolkit” for primary care clinics
    - CDC guidelines: provider supplement (2017); full guidelines under final review

HIV PRE-EXPOSURE PROPHYLAXIS (PrEP)

PROVIDER REFERENCE KIT

May 2018

Dear Colleague,

This PrEP Provider Reference Kit includes information and resources needed to become a PrEP provider.

Its purpose is to set you and your clinic up for success in prescribing PrEP to patients who are at risk for acquiring HIV.

If you have questions or need further support, please contact our PrEP providers:

IDVIRTUALHEALTH@mail.mil

Sincerely,

The Tri-Service HIV Working Group

Walter Reed National Military Medical Center

Summary

- Policy updates regarding HIV in military
  - Lots of uncertainty - more to follow…
- Alignment of Service policies under DHA
  - As much as possible…
- Increased incentive to protect SMs from HIV
- More research needed to target high risk groups

QUESTIONS?

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