

## **Outline**

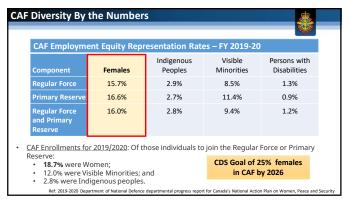


- A Diverse Fighting Force History
- Challenges to Inclusive Clothing and Equipment
- Movement toward Solutions
  - Clothing and Equipment for Diverse Force
  - Anthropometric Research
  - GBA+ Considerations
- Conclusions

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## **Operational Clothing and Equipment for Females in the CAF**

- Multiple social sciences studies done over last 25 years indicate the same results:
  - Davis (1997) "...majority of women expressed concern with poorly fitting uniforms and equipment (eg: rucksacks or helmets).
  - Perception **repeated** in results of Waruszynski, et al. (2018). *Little to no change/progress*.

  - Unisex operational clothing and equipment designs

     Results in reductions in performance, reduced mobility and significant risk of injury for females.



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## **Challenges to Female Operational Equipment Design**



- Historical data biases
  - Lack of <u>female-specific</u> data continues to unconsciously influence design decisions both within DND and in Industry
- · Lack of Representative Anthropometrics
  - Poor representation of females in current CAF anthropometric surveys
- Representative trial participant recruitment
  - Fewer female in CAF means fewer females on field trials
- Lack of Representative Physiological Data

  - Many studies on female thermal physiology, but <u>little</u> uptake into equipment design
     Limited studies on female-specific load carriage, operational nutritional requirements, etc;

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## **Challenge: Historical Data Biases**



- Lack of sex disaggregated data, drive to simplify supply chain causes bias for clothing and equipment design.
- · Case Study: Body Armour



## Wrong size plates

- Reduces shoulder mobility
- Reduces torso flexion
- Too heavy for females Sits differently on
- female bodies

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Press release New body armour improvements for w UK Armed Forces

The Swedish Armed Forces orders body armour adapted for women

## **Solution: Research Support for Inclusive Body Armour**

DRDC has a robust research program that is focused on testing and evaluation of operational clothing and equipment for a diverse fighting force.

Activities specific to better understanding ballistic protection for women:

- Risk assessment of high curvature ballistic plates and proposed modifications for current test protocols
- · Preliminary ballistic evaluation of "commercial" modular plates aimed at informing requirements for female PPE
- Literature and State-Of-the-Art Review (SOAR) with recommendation for a way-ahead for female-inclusive armour



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## **Challenge: Representative Anthropometrics**

Two (2) Main anthropometric surveys used by CAF in clothing/equipment design:

## 1) Anthropometric Survey of the Land Force

- · Conducted in 1996/1997
  - Consists of 709 Reg Force Canadian Army personnel, of which 243 were female (34%)

## 2) Canadian Forces Anthropometric Survey (2012)

- Conducted from 2010 2012
- Consisted of 2205 CAF personnel, of which 315 were female (14%)



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## **Solution: Updating the Anthro Models**

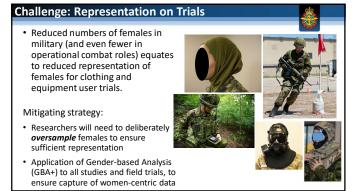
CAF Anthropometric Program for Soldier System Acquisition (CAPSSA)

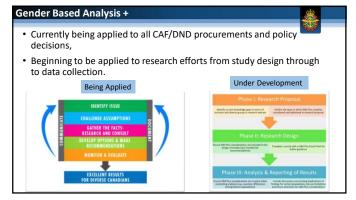
- CAF previously used Visimage Body Sizing System (now obsolete)
- · Program to procure and install 3D full body scanning systems and associated databases
- Ever-green database of body measurements that will change as CAF diversifies.
- Significant technological, privacy, process and security
- DRDC to provide support for validation and implementation of data

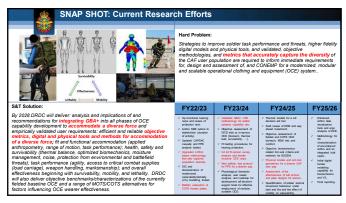




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## Conclusions



- Canada's movement towards integrating women into the Armed Forces has been ongoing for over a century;
- Despite these efforts, operational clothing and equipment design is still lagging for females
- R&D is moving towards providing answers to guide effective solutions.

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## **Questions?**

Hillary Boulay Greene – A/Dir –R&D People ADM(DRDC), Department of National Defence Canada

Hillary.BoulayGreene@forces.gc.ca

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## Military Women's Population Health Surveillance

Natalie Wells, M. D., M. P. H.

## **Disclaimer and Disclosures**

The views expressed in this presentation are those of the author and do not necessarily reflect the official policy or position of the U.S. Army, Department of Defense (DoD), nor of the U.S. Government.

I have no financial relationships to discuss.

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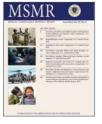


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## **Population Health Surveillance**

Published and accessible reports since 1995.



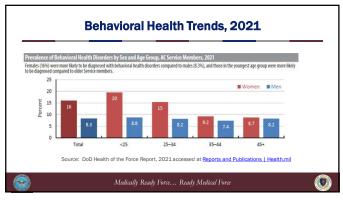


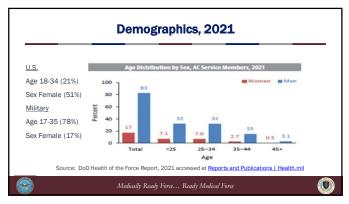
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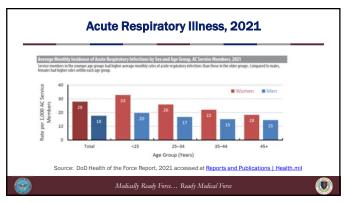


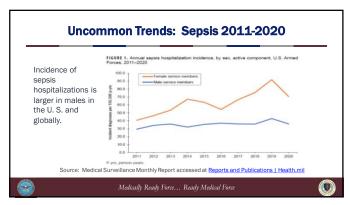
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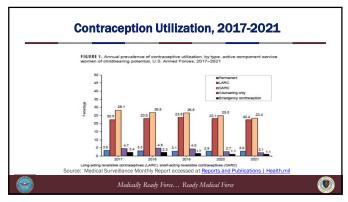
## Sexually Transmitted Infections, 2021. Incidence of Chlamydia and Genorrhoa by Sex and Age Group, KCService Members, 2021. Among IX Service members in 2021, femiles (46 per 1,000) had happer rates of old amydia and genorrhoa compared to makes (17 per 1,000), and rates were highest among the property of property of the property of property of the property of property of the prop











## Military population level health surveillance Offers opportunities to view trends over time Hypothesis generating for future research Influenced by the demographic composition of the population Focus on specific demographic groups Medially Realy Fore... Realy Medial Fore

## **Contact Information**

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E-mail: natalie.y.wells.mil@mail.mil

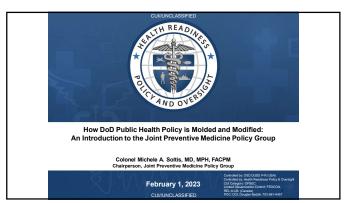
 $Website: \ \underline{\text{https://health.mil/Military-Health-Topics/Health-Readiness/AFHSD}}$ 



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## Joint Preventive Medicine Policy Group Disclosures and Disclaimers

- The author has no financial or other potential conflicts of interest to disclose.
- The views expressed in this presentation are those of the author and do not necessarily reflect the official policy or position of the Department of Defense or United States Government.









## CUI/UNCLASSIFIED

## Joint Preventive Medicine Policy Group Membership (cont'd)

- · Non-voting Members
  - Armed Forces Health Services Division
  - Immunization Healthcare Division
  - National Center for Medical Intelligence
  - Office of the Deputy Assistant Secretary of Defense for Health Readiness Policy and Oversight
  - Office of the Deputy Assistant Secretary of Defense for Health Services Policy and Oversight

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## CUI//UNCLASSIFIED

## Joint Preventive Medicine Policy Group Membership (cont'd)

- · Ad-hoc Members/Invited Guests
  - DoD Liaison to the CDC
  - CDC Liaison to the DoD
  - Canadian and British Medical Liaisons to the DoD
  - Service Infectious Disease Specialty Consultants
  - Geographic Combatant Commands
  - Uniformed Services University
  - Other subject matter experts, as necessary

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## CUI//UNCLASSIFIED



Wyeth, A. (1948). Christina's World. Retrieved from www.arthistory.about.co



## Joint Preventive Medicine Policy Group Objectives

- · Evaluate evidence-based clinical and community preventive services
- · Exchange, coordinate and communicate preventive medicine policy, programs, and best practice
- Inform preventive medicine support and guidance
- · Promote interoperability among the Service
- · Identify policy gaps and opportunities

to improve current programs

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## **Joint Preventive Medicine Policy Group Objectives** (cont'd)

- Review and analyze preventive medicine issues
- · Submit actionable recommendations for the consideration of the DASD(HRP&O)
- · Evaluate programs and policies to ensure currency and continued relevancy



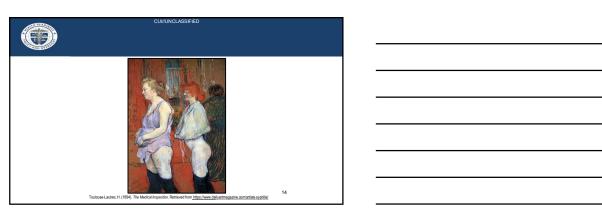
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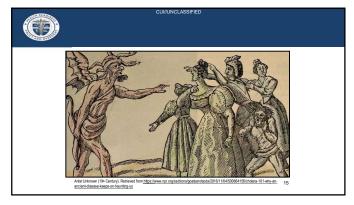














## **LGBT Policy in the DoD**

Holly N. Hoffmeyer, Ph.D. February 1, 2023

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## **Disclosures**

- The views expressed in this presentation are those of the author and do not necessarily reflect the official policy or position of the United States Department of Defense, nor the United States Government.
- Dr. Holly N. Hoffmeyer has no financial interests to disclose. Commercial support was not received for this activity.
- No conflict of interest.
- $\blacksquare$  No discussion of non-FDA-approved medications or devices.



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## Agenda

- LGBT Behavioral Health Disparities
- Sexual Orientation Gender Identity Barriers
- LGBT Behavioral Health Support
- LGBT Policy



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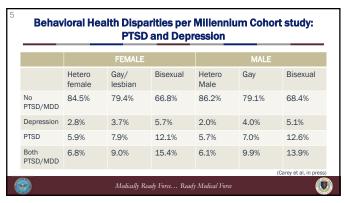


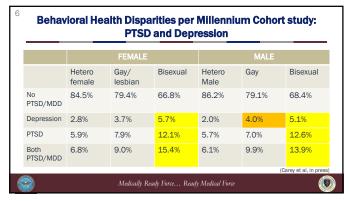
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## health disparities within DoD health disparity light depression mental health

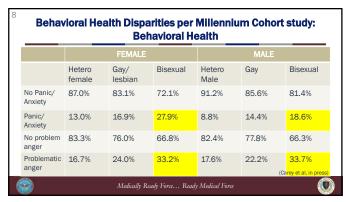


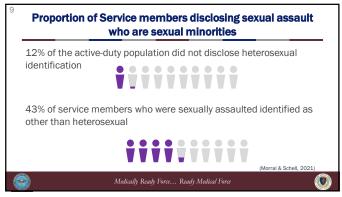
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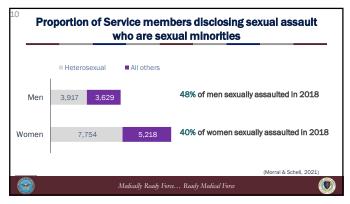


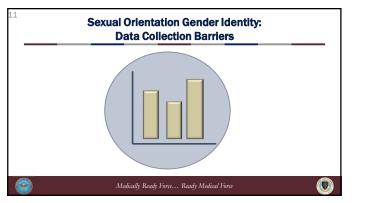


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	Hetero female	Gay/ lesbian	Bisexual	Hetero Male	Gay	Bisexual
No Panic/ Anxiety	87.0%	83.1%	72.1%	91.2%	85.6%	81.4%
Panic/ Anxiety	13.0%	16.9%	27.9%	8.8%	14.4%	18.6%
No problem anger	83.3%	76.0%	66.8%	82.4%	77.8%	66.3%
Problematic anger	16.7%	24.0%	33.2%	17.6%	22.2% (Ca	33.7% arey et al, in press
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## Sexual Orientation Gender Identity (SOGI): Background • July 22, 2011, Memorandum "Certification of the Repeal of "Don't Ask, Don't Tell" allowed unrestricted service of Lesbian Gay Bisexual persons • Restriction " DOD components, including the Services, are not authorized to request, collect or maintain information about the sexual orientation of Service members, except when it is an essential part of an otherwise appropriate investigation or other official action

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## Sexual Orientation Gender Identity (SOGI): Background DoDI 1300.28, "In-Service Transition of Transgender Service Members", April 30, 2021 4.4.d. Gender identity is a personal and private matter. DoD Components, including the Military Departments and Services, require written approval from the USD(P&R) to collect transgender and transgender related data or publically release such data.

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## Sexual Orientation Gender Identity (SOGI): Data Collection waiver SOGI data collection requires a waiver from Under Secretary of Defense (Personnel and Readiness) in most cases Exception DODI 6400.11 "DoD Integrated Primary Prevention Policy for Prevention Workforce and Leaders" December 22, 2022 5.3.a 'the collection of data concerning transgender related data for survey-based prevention research does not require written approval from USD (P&R)" • Requires confidentiality or anonymous design • Must use standard items from the item bank • Need IRB approval • Numerous other requirements need to be met













Mandatory Training

Mandated training for all MHS personnel on DHA Transgender policy, key terms, barriers to care and creating an inclusive and welcoming environment – available online early 2023

Affirmative Behavioral Health Care Training for Transgender and Gender Diverse Service members

Currently in development

Will be available on Joint Knowledge Online (on demand)

Guidance on assessment & diagnosis, creating an inclusive environment, engagement strategies, therapy topics, vignettes

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# Carey, F.R., LeardMann, C.A., Lehavot, K., Jacobson, I.G., Kolaja, C.A., Stander, V.A., & Rull, R.P. (in press). Health Disparities Among Lesbian, Gay and Bisexual Service Members and Veterans. American Journal of Preventative Medicine. Morral, A. R. and Schell, T. L. (2021). Sexual Assault of Sexual Minorities in the U.S. Military. RAND Corporation: Santa Monica. Stanton, A. M., Batchelder, A. W., Kirakosian, N., Scholl, J., King, D., Grasso, C., ... & O'Cleirigh, C. (2021). Differences in mental health symptom severity and care engagement among transgender and gender diverse individuals: Findings from a large community health center. PLoS One, 16(1), e0245872. Medically Ready Force... Ready Medical Force

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