

Mental Health Care for Service Members and Their Families Across the Globe

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ABSTRACT The U.S. Defense Department partnered with the International Initiative for Mental Health Leadership on effective leadership and operational practices for delivery of mental health (MH) as well as addiction services throughout the world for Service Members (SM) and beneficiaries. A Military Issues Work Group (MIWG) was established in 2011 to focus on challenges experienced by military SM and beneficiaries among countries. The MIWG found common concerns related to MH care delivery to rural and remote beneficiaries. Gaps in access to care were identified and prioritized to explore. This led to better collaboration and understanding of telemental health (TMH) practices and technology applications (apps) which increase access to care for rural and remote SMs and beneficiaries. An assessment of the number of SMs and dependents distant from MH care services in the USA was conducted, as well as an environmental scan for psychological health-focused mobile apps and TMH services geared toward SM, veterans, and beneficiaries. The MIWG is developing a compendium of existing military TMH programs and apps that address MH concerns and extant literature on use of technology to extend global access to care for military members and their families across the world.

INTRODUCTION

International Initiative for Mental Health Leadership (IIMHL) is a collaborative sponsored by the government of nine countries – Australia, England, Canada, New Zealand, Republic of Ireland, Scotland, USA, The Netherlands, and Sweden – focused on improving mental health (MH) and addictions services. Since its inception in 2003, IIMHL aims to move evidence-based practices to the service provider, to address resource and organizational gaps, and to organize systems for international innovation sharing, networking, and problem

solving. The Defense Health Agency Psychological Health Center of Excellence (PHCoE) leads IIMHL's Military Issues Work Group (MIWG) and hosted the inaugural meeting in Silver Spring, MD, in 2011, and again hosted in 2015. The MIWG consists of senior MH leaders in countries of both the sponsoring nations, and of nations interested in participation but not yet government sponsors of IIMHL. The MIWG focuses on strengthening leadership in military MH service delivery globally. Over the past two decades, many militaries have been involved in extended conflicts including the wars in Afghanistan and Iraq. These wars have taken a toll on the MH of Service Members (SMs) and their families. The MIWG has met about twice yearly since 2011 and worked to identify gaps and needs related to military MH globally. The MIWG found common concerns related to MH care delivery to rural and remote beneficiaries. Gaps in access to care were identified and prioritized to explore. The group later identified use of telehealth and technology, especially mobile applications, as a potential bridge to MH care in rural and remote areas. To gather information about the current status of MH resources for military members, veterans, and family members, the group committed to conducting an environmental scan for MH services, access to MH services, care-seeking behavior, and health infrastructure, including available telemental health (TMH) options.

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years. As a result of the initial MIWG discussion, and to better understand the needs of U.S. SMs and families that live remotely, PHCoE asked the RAND National Defense Research Institute in 2011 to (1) assess how many SMs and dependents were geographically distant from MH care in USA, (2) determine the effects of geographic remoteness on use of MH care, and (3) provide recommendations to close gaps in Department of Defense (DoD) policy and practice.¹

The 2015 RAND report² identified that an estimated 1.3 million DoD beneficiaries were at risk of living in an area remote from MH care (greater than a 30 minute drive time). They found that remote SMs (1) made fewer visits to any type of specialty behavioral health care provider and (2) made fewer visits for the purpose of psychotherapy than non-remote SMs. In addition, the report indicated that although the DoD developed guidelines to address access to care, those guidelines typically did not consider the impact of remoteness. The study suggests that remoteness is a significant factor in access to care and should be included in future guidelines.

Information and recommendations from the 2015 RAND study² sparked further discussion among MIWG members as access to care for rural and remote SMs and their families was an issue in common across nations, particularly related to improving access to care for remotely located beneficiaries. Use of TMH and particularly mobile apps emerged as a focus area. The USA led the effort to determine what types of apps are available to assist SMs and families; use of apps has become increasingly popular in the health care profession. The PHCoE began to conduct a U.S. environmental scan for psychological health-focused apps geared toward SM, veteran and other beneficiary populations. First, PHCoE looked for an existing process to determine selection of high-quality mobile apps for MH interventions. Next, PHCoE identified the Mobile Apps Rating Scale (MARS) as an existing method to select high-quality mobile apps. However, after in-depth evidence grading of the literature that was used in support of MARS development, and after MIWG discussion about the scarcity of mobile app resources available to address MH for the military and veteran population worldwide, the MIWG determined a different initial approach was indicated. A simple Excel tracker was used to capture the inclusion criteria of the search strategy and parsed out MIWG-identified data points related to the apps.³ The tracker consisted of descriptive data reflecting MH resources available in mobile apps, websites, TMH, or education and training readily available to SMs, their families, or providers. The tracker tool was shared with the MIWG members to identify their country specific resources, with ultimate plans to make the comprehensive global resource available on a secure shared Internet location.

The MIWG conducted a brief environmental scan for U.S. MH focused mobile apps geared toward SM, veteran and beneficiary populations in participating countries. Five of the nine government sponsor member nations – Australia, Canada, England, New Zealand, and USA, as well as MH

leaders from the military or veteran government agencies from Germany and Denmark – conducted assessments of their systems' use of telehealth and summarized their available resources. The MIWG made a decision to make the initial resource one that provided brief information about the app (where to get the app, brief description), rather than provide evaluative information about the app (quality of evidence, strengths and weaknesses); the planned expanded resource will provide much greater detail when completed. Each MIWG member was asked to complete and submit an assessment of its nation's rural and remote challenges, and to identify how their military addresses those challenges in the context of the overall delivery of military MH care. They were asked to specifically identify their telehealth resources; however the methodology for identification was not prescribed. Telehealth was defined as a means of services and information delivery related to health, through use of various technologies. The range of TMH services can be simple (providing care or information by telephone) or complex (completing a surgical procedure via robotic means by video conferencing from one part of the world to another), or provided in unique means such as via computers linking patients and providers via virtual therapy settings, or include use of mobile applications to enhance treatment.⁴⁻⁹

RESULTS

Based on the results from each of the partner nations, the MIWG has developed a preliminary compendium of existing TMH resources including apps that address MH concerns (Tables I–V). The U.S. table (Table I.) provides an example of what the future MIWG compendium will include, which will also offer a summary about advantages and disadvantages of each resource.

United States

For the USA, the wars in Iraq and Afghanistan have relied heavily on Reserve Components (RC, which include National Guard) well as Active Duty SMs. Active Duty SMs and their families primarily reside near military bases; however, RCs are more likely to be geographically disbursed and reside outside of major urban areas. The provision of medical and MH care to SMs who reside in rural and remote locations presents new challenges.¹⁰⁻¹³ The quality of MH services as well as availability are lower among rural U.S. residents. Without access to MH specialty care, MH patients are treated for MH conditions in primary care; treatment in primary care is more apt to include medication instead of psychotherapy due to the lack of MH professional services in the area.¹⁴ Only about one third of the U.S. Critical Access Hospitals have onsite detoxification services and 2% have inpatient psychiatric services, thus requiring rural patients to travel over an hour to receive these services.¹⁵

Overall, the DoD provides health care services to 9.4 million active duty SMs and other beneficiaries (SM families, retirees, etc.) within the USA and overseas through its Military Treatment Facilities (MTFs) (military hospitals and

TABLE I. U.S. Mental Health Resources Available Across the Globe for SMs, Their Families, and Providers [Selected]

Resource, Organization, and Website	Description	Advantages and Disadvantages
Mobile Apps		
Breathe2Relax. DHA Connected Health Branch. https://www.airforcemedicine.af.mil/Resources/Mobile-Apps/	Breathe2Relax is a portable stress management tool. It can be used as a stand-alone stress reduction tool, or can be used in tandem with clinical care directed by a health care worker.	Advantages: Information provided in both video and text format, customizable, free, easy to use Disadvantages: Not interactive, basic interface, does not provide recommendations for use
PTSD Family Coach. National Center for PTSD. https://www.ptsd.va.gov/appvid/mobile/familycoach_app.asp	PTSD Family Coach is an app to support family members of those living with posttraumatic stress disorder (PTSD)	Advantages: Extensive PTSD information available, tracks stress over time and provides feedback on progress, provides connection to support services, free, easy to use Disadvantages: Basic interface
T2 Mood Tracker. DHA Connected Health Branch. https://www.airforcemedicine.af.mil/Resources/Mobile-Apps/	The T2 Mood Tracker is a mobile application that allows users to monitor and track emotional health	Advantages: Customizable, programmable reminders, graphs and reports available for easy sharing, provides connection to support services, free, easy to use Disadvantages: Basic interface, no alert when very negative moods selected/input by users
VetChange. U.S. Department of Veterans Affairs. https://www.ptsd.va.gov/appvid/mobile/VetChange_app.asp	VetChange is an app for Veterans and SMs who are concerned about their drinking and how it relates to posttraumatic stress after deployment, or for anyone who wants to develop healthier drinking behaviors	Advantages: Interactive, skill-building, goal-oriented, customizable, programmable reminders, tracks progress over time, free, easy to use Disadvantages: Basic interface
Virtual Hope Box. DHA Connected Health Branch. https://www.airforcemedicine.af.mil/Resources/Mobile-Apps/	The Virtual Hope Box (VHB) is a smartphone application designed for use by patients and their behavioral health care providers as an accessory to treatment.	Advantages: Customizable, skill-building, provides connection to support services, free, easy to use Disadvantages: Basic interface
TMH		
Military and Family Life Counseling Program. Military OneSource. https://www.militaryonesource.mil/products#!/detail/421	Military OneSource provides free, confidential, short-term non-medical counseling via the Military and Family Life Counseling Program. Non-medical counseling services are available face-to-face, by telephone, online, and video.	Advantages: Wide range of challenges covered, regularly updated, easy to use Disadvantages: Available only for U.S. military members and beneficiaries
Websites		
Stress Gym. University of Michigan. http://www.depressiontoolkit.org/stressgym/	Stress Gym, a first-level, evidence-based, website intervention to help individuals learn how to manage mild to moderate stress and depressive symptoms using a self-help intervention with progress tracking and 24/7 availability	Advantages: Wide variety of information, free, easy to use Disadvantages: Not interactive, basic
Education and Training		
Center for Deployment Psychology Online Training. Uniformed Services University. http://deploymentpsych.org/psychological-training	This site provides online versions of live evidenced-based practice training events through virtual platforms including Adobe Connect, Second Life, and Zoom. Self-paced online courses on military culture and military relevant clinical issues are also available	Advantages: Interactive, live or self-paced options, broad range of topics Disadvantages: For behavioral health professionals only

This table provides eHealth resources developed in the USA for SMs, their beneficiaries, and MH care providers.

military clinics) and a civilian network of providers. Additionally, because the USA employs two historically separate health care systems for SMs, the DoD system referenced above and the Department of Veterans Affairs (VA) system, there are also two separate channels for delivery of telehealth. The types of clinical services for which the DoD utilizes telehealth vary according to the type of encounter. Last year, of the roughly 30,000 telehealth encounters that DoD provided to active duty SMs through its direct care component, MH care was the most commonly offered type of service provided with synchronous encounters (synchronous or “real time” telehealth encounters are characterized

by the use of interactive, electronic communication exchange in at least two directions in the same time period).

Specifically with regard to military MH, the DoD provides care to over 2 million SMs and families in the USA and overseas. DoD beneficiaries receive MH care at no cost if care is received at the MTF. They also receive care through uniform, contract, and civilian providers through services located at military bases, in the local community via DoD-contracted providers, or through VA Medical Centers. In addition to addressing diagnosable MH conditions, both the DoD and the VA offer additional treatment options for non-diagnosable MH-related conditions such as readjustment

TABLE II. CAN Mental Health Resources Available Across the Globe for SMs, Their Families, and Providers

Resource, Organization, and Website	Description
Mobile Apps	
OSI Connect. Canadian Armed Forces Mental Health Centre. http://www.theroyal.ca/mental-health-centre/apps/osi-connect/	Provides access to Mental Health services and resources for the Canadian Armed Forces.
PTSD Coach Canada. Veterans Affairs Canada. http://www.veterans.gc.ca/eng/stay-connected/mobile-app/ptsd-coach-canada	The PTSD Coach app can help you learn about and manage symptoms that often occur after trauma.
Road to Mental Readiness (R2MR). Canadian Armed Forces. https://play.google.com/store/apps/details?id=ca.drdc.rddc.r2mr&hl=en https://itunes.apple.com/us/app/r2mr/id1148743063?mt=8	R2MR mobile apps are available for CAF members and families to increase early awareness of distress and decrease stigma and other common barriers to care.

This table provides eHealth resources developed in Canada for SMs, their beneficiaries, and MH care providers.

TABLE III. DEN Mental Health Resources available across the Globe for SMs, their Families, and Providers

Resource, Organization, and Website	Description
Mobile Apps	
PTSD FamilieCoach. Danish Veteran Centre. http://veteran.forsvaret.dk/forskning/Pages/PTSDFamilieCoach-undersogelse.aspx	The PTSD FamilieCoach app can help families cope learn about and manage symptoms that often occur after trauma. The app is a Danish Translation of the US PTSD Family Coach.
TMH	
The Psychologist Assistant. Danish Veteran Centre. https://psykolog-assistenten.dk (future website address)	The system supports the MH treatment of previously deployed military personnel and can be accessed both through an app and through browsers.
Telephone and online Consultations. Danish Veteran Centre. https://forsvar.valgservice.dk	Military psychologists give anonymous consultations by an online messaging solution and both anonymous and non-anonymous consultations by telephone to all previously deployed military personnel and their families.

This table provides eHealth resources developed in Denmark for SMs, their beneficiaries, and MH care providers.

TABLE IV. UK Mental Health Resources Available Across the Globe for SMs, Their Families, and Providers

Resource, Organization, and Website	Description
Mobile Apps	
National Health Service Mobile Applications. NHS. https://www.england.nhs.uk/commissioning/armed-forces/armed-forces-net/	Provides access to United Kingdom Armed Forces and Veterans Mental Health Services.
TMH	
Big White Wall. BigWhiteWall, Ltd. https://www.bigwhitewall.com	Big White Wall is an online MH and wellbeing service offering self-help programs, creative outlets and a community that cares.
Help For Heroes. Help for Heroes, Ltd. https://www.helpforheroes.org.uk	Help for Heroes supports those with injuries and illnesses attributable to their service in the British Armed Forces.

This table provides eHealth resources developed in the UK for SMs, their beneficiaries, and MH care providers.

counseling at a Vet Center or via MilitaryOneSource. These additional supportive options provide various telehealth options as well.

High-priority DoD telehealth initiatives include expanding telehealth infrastructure and adoption, developing telehealth to a patient's location (e.g., at home, or outside fixed facilities), and building a Global Asynchronous Teleconsultations Portal.¹⁶ Army Virtual Health (VH) connects patients and providers to health care across the world. Using VH, patients are able to receive care directly from remote providers via electronic communications such as clinical video-teleconferencing (VTC). Additionally, providers can consult and learn from other providers, regardless of their geographic location. The

Navy Virtual Health Program develops and coordinates global telehealth to support remote, Fleet and deployed forces to ensure continuity of care for uniform SMs and DoD beneficiaries. The Air Force Telehealth Office develops interoperable Information Technology (IT) capability supporting clinical best practices. Clinical Healthcare IT capabilities include live Interactive VTC Teleconsultation between providers or video encounters with patients, and Telementoring for the purpose of professional oversight, mentoring, and specialty guidance. Defense Health Agency Connected Health (formerly National Center for Telehealth and Technology) provides critical support for the development and use of cybersecure connected health technologies (e.g., video telehealth, mobile health, websites,

TABLE V. AUS Mental Health Resources Available Across the Globe for SMs, Their Families, and Providers

Resource, Organization, and Website	Description
Mobile Apps	
HighRes. Department of Veterans Affairs. https://at-ease.dva.gov.au/veterans/resource-library/mobile-apps/high-res-app	The High Res (High Resilience) app helps you manage stress, build resilience and optimize performance on the go.
ON TRACK with The Right Mix. Department of Veterans Affairs. http://at-ease.dva.gov.au/veterans/resources/mobile-apps/on-track-app/	The ON TRACK with The Right Mix app helps you manage your alcohol consumption by tracking the number and type of drinks consumed and the amount of money spent.
Operation Life. Department of Veterans Affairs. http://at-ease.dva.gov.au/veterans/resources/mobile-apps/op-lifeapp/	The new Operation Life mobile application is designed to help those at risk deal with suicidal thoughts and is recommended to be used with the support of a clinician.
PTSD Coach Australia. Department of Veterans Affairs. https://at-ease.dva.gov.au/veterans/resource-library/mobile-apps/ptsd-coach-australia	The PTSD Coach Australia app can help you learn about and manage symptoms that commonly occur after trauma.
TMH	
At Ease. Department of Veterans Affairs. http://at-ease.dva.gov.au	At Ease can help veterans, ADF personnel, and family members identify the symptoms of not coping. At Ease can provide tips, treatment options & resources. At Ease also has clinical resources for health professionals who may be treating members of the Veteran & Defence community.
OpenArms - Veterans & Families Counselling. Department of Veteran Affairs. https://www.openarms.gov.au/	Provides an Internet-based platform to bring together digital applications that can help users manage their MH.

This table provides eHealth resources developed in Australia for SMs, their beneficiaries, and MH care providers.

wearables), to improve care quality and access and to provide health care self- management tools for members of the Armed Services, their families, military retirees, and DoD partners. Connected Care develops cutting edge tools, promotes enterprise standards of excellence, assists leaders and policy makers, conducts knowledge translation, trains providers and support staff, and conducts research into connected health technology and care modalities. Veterans Affairs and other government agencies offer a variety of psychological health mobile apps for clinicians and patients, which can be used anywhere and anytime. Some can be used confidentially that helps to overcome stigma and to complement clinical care, can serve as a virtual case manager, or can gently prompt a user to adjust activity or medication level. These apps were designed to improve the lives of U.S. warriors, veterans, and their families in a simple and user-friendly way.

Connected Health develops and supports a number of mobile applications and technology advances to enhance access to care for rural and remote SMs and their families, and works with the MIWG. Recently, they released the DoD Mobile Health Practice Guide¹⁷ that offers an overview of mobile health and tutorials, including how to download mobile apps and incorporate them into clinical settings. Mobile applications are Internet applications that run on smartphones or other mobile devices and have become increasingly popular in the health care profession.¹⁸ Alongside industry researchers who continue the investigation for vetting and grading of mobile apps,¹⁸ Connected Health is focusing on military mobile apps, and is also working with an industry partner, PsyberGuide, to develop a mobile app rating tool to be piloted in 2018.¹⁹

Canada

Health care is delivered to Canadian Armed Forces (CAF) personnel through 37 clinics at bases across Canada and Europe. These Centres vary in size and are reinforced by local civilian health care services, at no cost to the SMs. Canadian Armed Forces SMs and their families have access to a member assistance program through a 1-800 number that will provide them with a no-cost referral to MH clinicians in their local area for up to eight sessions.

Approximately 15% of CAF Regular Force personnel access MH services each year, and care-seeking behavior tends to increase in the years immediately following deployment. While the numbers show that CAF MH services are accessible and acceptable to many CAF members, less than half of those with an apparent mental disorder will seek care in any given year. This unmet need for care is not a problem that is unique to the CAF; however, it does pose a challenge worthy of attention.

The CAF has developed and implemented a comprehensive strategy to increase early awareness of distress and decrease stigma and other common barriers to care through the Road to Mental Readiness (R2MR) program. This program ensures that all CAF members are aware of some of the early indicators of distress, self-management skills and strategies, as well as the benefits of early access to care and local resources.

One of the seven priorities from The Surgeon General's 2013 Mental Health Strategy is to optimize use of technologies for diagnosis, treatment, training, education, consultation, rehabilitation and recovery.²⁰ A national TMH strategy has been developed and the capability implemented to provide secure video TMH across all of our CAF Health

Services Centres. Mobile apps that leverage the self-assessment tools taught to CAF members during their R2MR training have been developed to reinforce the importance of self-monitoring and early awareness of distress, along with tangible and useful tools to assist leaders, subordinates, peers and loved ones. The app includes interactive guides that the user can personalize to reinforce the application of goal-setting, visualization, self-talk, tactical breathing, attention control and memory. The app can be used to facilitate mental skill acquisition and application, and as an adjunct to MH treatment as it is based on cognitive behavioral theory. The app will also include appropriate care recommendations and links to resources for those who may identify significant distress.

The CAF also have access to two other mobile applications, PTSD Coach Canada and OSI Connect, both of which offer evidence-based information on MH as well as links to local resources and care providers. Initiatives such as these, and lessons learned, will contribute to the enhancement of MH capabilities and improved access to care for those who serve.

New Zealand

The New Zealand Defence Force (NZDF) does not have the same challenges with geographic footprint as those of larger allied forces and countries (approximately 268,000 sq. km, similar in size to the UK). However a smaller force size (~9,000 Regular Force) and proportionately smaller health infrastructure to support SMs and families, presents similar reach challenges. The relative isolation of some members of the NZDF community (particularly Reserves and Veterans) means that not everyone is in easy reach of Defence or external community health education and support services.

The NZDF health support internal infrastructure comprises 10 Health Treatment Centres spread across NZ. Primary health care support is provided to serving uniformed members through Health Treatment Centres resourced by general practitioners, physiotherapists, social workers, chaplains and psychologists. Families are able to access Defence family support and community health support services in regional locations, while eligible veterans can access care and support through Veterans Affairs. While larger deployments have a level of dedicated health support capability, smaller groups draw on coalition partner support and reach-back.

A national 24/7 NZDF help line operates to provide immediate support to all members of the Defence community. Education and information about internal and community health support and services are provided on the Defence Health website. Specialist support is usually provided to serving personnel and veterans through partnership with local NZ health care providers. One of the issues with using external capability is that high external demand for services means wait times can be up to several months and finding

the right specialist support in less populated regions can also be difficult.

A priority for focus within the NZDF MH Strategy is extending the reach of services, particularly to reserve, deployed and veteran populations. TMH provides the opportunity to extend access to more isolated members of the Defence community, and to enable a proactive focus on early recognition, self-management, and early help seeking and timely support where appropriate. However discretion and guidance are needed to navigate the growing myriads of apps, online self-help programs, and variability in TMH process and practice.

Denmark

Danish military personnel who have previously been deployed on international missions may receive free MH treatment whether they have departed from the Danish Defence or are still serving from both the military psychologists at the Danish Veteran Centre (DVC) as well as the public health sector. The overall coverage of the Danish MH services for veterans is considered relatively high, yet the DVC is developing an online digital system for veterans receiving MH treatment at the Centre. The purpose of the system is not to replace the ongoing treatment but to support it. The system consists of both a tool for collecting self-reported client data for continuous monitoring of treatment progression and need, as well as a tool for conducting Prolonged Exposure Therapy. The veteran may use either an app or a browser for reporting a selected set of parameters (e.g., mood, sleep and alcohol intake) as well as for filling out questionnaires. Treatment progression is monitored on scores viewable by both the psychologist and the veteran.

United Kingdom (England)

The UK has not yet heavily invested in TMH for still serving personnel although plans are in place to pilot remotely MH assessment and therapy in the near future. There is, however, already some remote delivery of care for military veterans including a specific provision for military veterans and families through the “Big White Wall” online platform and through the “hidden wounds” therapy service which is provided by the military charity “Help for Heroes” website. However, there is little evidence available about how effective these services are compared to more routine methods of care delivery. There are numerous apps which have been developed, including one provided by the National Health Service, yet evidence about their utilization and impact are lacking at this time.

Australia

In Australia, services for serving military personnel are coordinated through Joint Health Command consistent with the Australian Defence Force (ADF) Mental Health and Wellbeing Strategy 2018–2023.²¹

Additionally, serving and ex-serving personnel with one day's full-time service can receive a Repatriation Health Card. This card enables access to the full complement of the Department of Veteran Affairs funded MH services. This access includes the Veteran and Veteran Family Counselling Service (VVCS), not only for the military member but for their family as well.²⁰ Services provided are counseling for individuals, couples and families, group programs and after-hours telephone support, as well as information, education and self-help resources, including social media, community webinars, and a website.

Veteran and Veteran Family Counselling Service are delivered through 25 centres and a national network of over 1,200 outreach clinicians, to over 27,000 members of the ADF community and their families annually. The outreach clinicians, trained and supported by VVCS are important for rural and remote clients, as they provide access to military aware clinicians close to home. Additionally, VVCS has been utilizing telehealth for more than a decade in Western Australia but is now rolling out resources nationally to ensure access to multi-disciplinary teams. Serving and ex-serving personnel also have access to self-help resources on the "At Ease" website, which includes four mobile applications PTSD Coach Australia, High Res (resilience building), the Right Mix (alcohol use) and Operation Life (for suicide ideation).

In 2016–2017, around 78% of VVCS counseling clients saw an outreach clinician.²² Fundamental to ensuring quality care in this model has been the web-based client management system utilized by both in centre and outreach clinicians. This technology is increasingly important for monitoring clinical efficacy but also enabling client centered care. In 2016, the Australian Government committed \$32.4 million over 3 years; to develop an Internet-based platform to bring together digital applications that can help users manage their MH.²³ Veteran and Veteran Family Counselling Service, the veteran trial site for this national initiative, will focus on integrated e-mental health tools and client centered technology solutions for MH care.

DISCUSSION

The quality of MH services as well as availability of MH care is lower among rural U.S. residents, and treatment in primary care is more apt to include medication instead of psychotherapy due to the lack of MH professional services in the area. While CAF MH services are accessible and acceptable to many CAF members, less than half of those with an apparent mental disorder will seek care in any given year, a problem that is not unique to the CAF. The focus within the NZDF MH Strategy is extending the reach of services, particularly to reserve, deployed and veteran populations. The overall coverage of the Danish MH services for veterans is considered relatively high; additionally, the DVC is developing an online digital system for veterans receiving MH treatment at the Centre to support the ongoing

treatment. The UK has not yet heavily invested in TMH for still serving personnel, although plans are in place to pilot remotely MH assessment and therapy in the near future. Veteran and Veteran Family Counselling Service has been utilizing telehealth for more than a decade in Western Australia, and is now rolling out resources nationally to ensure access to multi-disciplinary teams. These ongoing international efforts to increase quality and access to MH care across the globe point to the considerable benefit of partnering across nations to support exchange of knowledge, to ensure identification of opportunities to leverage technology and TMH opportunities between nations, and to increase the level and quality of health support, particularly to those in isolated rural and remote communities. Providing TMH services in local clinics or patient homes may reduce the need for patients to travel to urban centers for care and may minimize the stigma associated with care.³ It could also protect client privacy in small communities, relieve the professional isolation of rural providers by facilitating communication with colleagues at other facilities, and improve access to evidence-based care for behavioral health conditions. The IIMHL MIWG compiled available tools and services from each country that address rural and remote MH care needs. Future MIWG meetings will be used to determine how to promote the information. The tables above represent an initial overview of the collection of resources from each country, divided into categories that span all tools which could be used to increase access to MH services.

There are many limitations to the use of mobile apps and telehealth for MH disorders that may affect the development of improving access to care in remote locations across the globe. Most notable are the required behavior changes necessary for both providers and SMs to use mobile apps on a continual basis. Integrating new behaviors into existing practices can be a challenge, particularly among those not comfortable with using new technologies. Additionally, there is a limited research base to support use of most mobile apps and telehealth for treatment of MH disorders. Thus many mobile apps are not based on a body of evidence of effectiveness of the use of the app, but rather on evidence for building block components that comprise the key functions within mobile app. Mobile apps have not yet been shown through research to be an effective primary treatment for MH disorders, and are intended to be adjunctive to the treatment delivered in person or by TM. So while mobile apps may serve to bridge care, reduce barriers, or serve as an entry point into MH literacy, they are not yet viable as a means to increase care reach and delivery.

TM systems are in their infancy in most MIWG nations, and while growing evidence demonstrates TM will help to increase access to care for rural and remote beneficiaries and appears to be an effective way to deliver care to SMs and their families remotely, logistical and financial challenges in constructing and maintaining these systems remain significant barriers for most of the MIWG countries.

CONCLUSION

In an era of global connectivity, the time is opportune to build global capacity through technology to increase MH access to military beneficiaries in rural and remote locations. The IIMHL MIWG has “listened to the world” and stands ready to implement a compendium of resources, applications, and research for our global neighbors. As technology enables and supports global health engagement efforts, the collection and dissemination of MH resources specifically intended for use by the SMs is an important step towards strengthening ongoing collaborations between military MH leaders across the globe.

PRESENTATION

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