National Leadership Summit on Outpatient Mental Health Benchmarks

ESTABLISHING BENCHMARKS *for* OUTPATIENT MENTAL HEALTH CARE:

A Call to Action with Consensus Recommendations

Proceedings of the
National Leadership Summit on Mental Health Benchmarks
October 27-28, 2022 | Washington, D.C.

David Linkh, PhD, Alisa Breetz, PhD,
Tracy Neal-Walden, PhD, & Heather Chiarello, MA
COHEN VETERANS NETWORK, INC.

AFFILIATIONS OF SUMMIT ATTENDEES

Summit attendees represented a broad cross section of thought leaders, including academicians, policy makers, clinicians, mental health program administrators, accreditors, and others from both the public and private sectors. Participants included leaders from the following organizations:

- Air Force Medical Support Agency
- Centerstone
- Cohen Veterans Bioscience
- Cohen Veterans Network
- Columbia University
- Commission on Accreditation of Rehabilitation Facilities (CARF) International
- George W. Bush Institute, Military Service Initiative
- Hope for the Warriors
- Johns Hopkins University
- Joint Commission on Accreditation of Healthcare Organizations
- Meadows Mental Health Policy Institute
- National Center for Posttraumatic Stress Disorder in the Office of Mental Health and Suicide Prevention, U.S. Department of Veteran Affairs
- National Committee on Quality Assurance
- New York University
- Oracle Health
- PsychArmour Institute
- RAND Epstein Family Veterans Policy Research Institute
- U.S. Department of Defense Psychological Health Center of Excellence
- University of Southern California
- University of Texas Health Science Center at San Antonio
- Wounded Warrior Project

INTRODUCTION

Cohen Veterans Network, Inc. (CVN) is a not-for-profit philanthropic organization [501(c)(3)] founded in 2016. CVN is focused on delivering mental health services for post-9/11 veterans, active-duty service members, and their families. Cohen Clinics are committed to improving mental health outcomes through a network of customized, outpatient clinics in high-need communities, in which trained clinicians deliver client-centered, evidence-based care. Additionally, CVN is committed to removing barriers to care and advancing the field of mental health.

In 2022, the **CVN Institute for Quality (CVN-IQ)** was launched. The institute is CVN's research division, charged to advance the field of mental health by leveraging clinical evidence and innovation and contributing to knowledge building through operational and academic research. CVN-IQ ensures CVN's continued status as a learning mental health system and positions it to contribute broadly as a thought leader in the military, veteran, and outpatient mental health arenas.

In the course of developing its mental health network, CVN leadership identified a lack of standardized benchmarks for mild-to-moderate mental health outcomes. To address this concern and advance the field, CVN convened a national summit bringing together leading behavioral health experts. Attendees included clinicians, researchers, policy advocates, and industry executives who met for 1.5 days to focus on improving access, transparency, efficacy, and equity across outpatient mental health care. Participants collaborated to identify opportunities to use benchmarks to improve treatment standardization, comparability, accountability, and effectiveness across the field.

***This paper summarizes the proceedings including the major themes and discussion threads as well as the group's consensus recommendations in the areas of* policy, practice, *and* research.**

FRAMING **THE PROBLEM(S)**

Behavioral health conditions, including mental health and substance abuse disorders, are a leading cause of both distress and disability in the U.S., impacting almost 20% of adults, or approximately 52.9 million Americans (SAMHSA, 2021). Despite this, it is estimated that less than half of those who require care receive it (Reinert et al., 2022). Furthermore, those who do receive behavioral health care do not consistently receive the most effective care available. Despite a robust evidence base supporting routine use of standardized assessment measures over treatment as usual, this level of care remains the exception. Program and practice decisions in outpatient mental health care continue to be driven by a variety of factors including individual provider preferences, state guidelines, or requirements of private or public payors as opposed to standardized evidence-based best practices which demonstrably improve treatment outcomes, thereby optimizing the value and impact of limited resources.

Establishing Benchmarks for **Outpatient Mental Health Care**

Benchmarks for mental health care include a combination of standards, thresholds, and validated cut points for a range of key client level measures related to diagnoses, symptoms, and functioning as well as clinic or agency level metrics associated with patient safety, quality, and value.

According to Coombs, Walter, and Brann (2011)

"Benchmarking is a process that was originally designed by industry to improve efficiency. In health care, it is often also motivated by a desire to introduce best practice, to standardize treatment across consumers, and to help explain and address differences in costs and outcomes of care. Benchmarking can involve comparisons between different service units within one organization or between different organizations, can be concerned with inputs, processes, outputs, or outcomes, and can be done collaboratively or competitively. It can facilitate quality improvement activities and can give providers and funders of care insight into existing and potential organizational performance." (pg. 38)

At the agency level benchmarks may have substantial value to administrators and behavioral healthcare leaders, supporting their responsiveness and accountability to funders and policymakers who provide oversight and resources. These agency level metrics typically include both quality and compliance measures but may also involve aggregate data on outcomes. Unfortunately, despite repeated calls for the use of benchmarks including standardized outcome measures over the past two decades, adoption has been slow and uneven across settings, and disciplines (Essock, Olfson, & Hogan, 2015). Furthermore, published benchmarks related to patient outcomes in outpatient clinical settings are not widely available as there remain few incentives to systematically collect and report them and even fewer to publish or share such information across providers, agencies, or health systems.

At the individual client level, there is compelling evidence that routine symptom measurement and reassessment are powerful tools for promoting improved outcomes and that in their absence clients may languish in care without improvement or even grow worse (Boswell et al., 2018; Lambert et al., 2018; Moltu et al., 2018; Muir et al., 2019). While psychotherapy is generally regarded as beneficial to those who seek care, Hansen and colleagues (2002) in a large-scale study determined that about two thirds of patients failed to achieve reliable and clinically significant improvement. In other published studies, up to 10% of adult patients become worse in terms of symptoms or functioning over the course of treatment (Kraus et al., 2011). Further, provider intuition and judgement have not proven to be the most sensitive or accurate methods

for assessing therapeutic progress. In fact, evidence suggests that mental health providers systematically overestimate the improvement rates and underestimate deterioration rates among their patients (Boswell, 2020; Walfish et al., 2012). Thus, there is substantial evidence in the literature that when relying on judgment alone, psychotherapists are missing essential cues that might help them adjust their treatment plan for cases most in need of support.

In this report we address a range of related strategies for improving clinical outcomes and quality including **Routine Outcomes Monitoring (ROM)** and **Measurement Based Care (MBC)**. While closely related in the literature and interspersed throughout this discussion and recommendations, the two terms are not synonymous. Routine Outcome Monitoring (ROM) refers to the periodic assessment and reassessment of patient variables, such as symptom severity, functioning, and well-being to track change or progress over time (Carlier & Van Eeden, 2017) and often involves the use of patient reported outcome measures (PROMS). ROM is one critical component or element of measurement based care as described in greater detail below.

The Case for **Measurement Based Care**

A full treatise on measurement based care is well beyond the scope of this report. Fortunately, previous authors have addressed the issues more exhaustively, notably Meadows Mental Health Policy Institute in their 2021 white paper titled *Measurement-Based Care in the Treatment of Mental Health and Substance Use Disorders* (Alter et al., 2021) and the Kennedy Foundation report, *Fixing behavioral health care in America: A national call for measurement-based care in the delivery of behavioral health services,* released in 2017 (Fortney et al.). Across the behavioral health field, the benefit of using routine outcome monitoring, or ROM, for the average psychotherapy case has been established empirically by multiple systematic reviews and well-powered meta-analyses (Constantino et al., 2018; Fortney et al., 2017; Lambert et al., 2018; Shimokawa, Lambert, & Smart, 2010). Additionally, Measurement Based Care (MBC), defined by the practice of systematic and routine assessment using patient-generated data (i.e., outcome measures) over the course of care to monitor and tailor behavioral health treatment (Scott & Lewis, 2015) provides a structure and process for using such measures most effectively.

Measurement based care can be separated into 4 core components:

1. *a routinely administered symptom, outcome, or process measure, ideally prior to each clinical encounter*
2. *practitioner review of the data*
3. *patient review of the data*
4. *collaborative reevaluation of the treatment plan based on the data*

Benefits of MBC include strengthening the therapeutic alliance, reinforcing patient progress, and improving clinical outcomes (Alter et al., 2021). The approach also has strong potential advantages at the practice and system levels (i.e., enhancing program fidelity, demonstrating value to third parties, and improving overall quality and patient satisfaction (Lewis et al., 2019; Giedzinska & Wilson, 2023). In 2015, The Kennedy Forum called for the adoption of measurement based mental health and substance use treatment in the U.S. – an approach to systematically track the clinical status and response of individuals to evidence-based treatments. Fortney and colleagues (2017) cited findings that patients receiving treatment as usual experience outcomes inferior to those patients who received MBC. Measurement based care has been endorsed repeatedly in scientific articles and reviews (Boehnke & Rutherford, 2021; Harding et al., 2011; Snyder et al., 2012) and studies have documented impressive effects including up to a 75% improvement in remission rates for patients receiving measurement based care for depression, compared with 29% among those who received treatment as usual (Guo et al., 2015). Feedback from MBC may also drive treatment adjustments and improve accountability (Alegria et al., 2021). The rationale for MBC is aptly articulated in the following policy statement from the Kennedy Forum.

> *"All primary care and MH/SU care providers treating patients with mental health and substance use disorders should implement a system of measurement-based care whereby validated symptom rating scales are completed by patients and reviewed by clinicians during encounters. MBC will help providers determine whether the treatment is working and facilitate treatment adjustments, consultations, or referrals for higher intensity services when patients are not improving as expected"*

Moreover, there are virtually no empirical data to suggest that the use of such systems unduly burdens patients or providers; in fact, both stakeholder groups tend to value the use of standardized measures to guide treatment (Muir et al., 2019).

Barriers, Gaps, and Implementation **Challenges**

Despite compelling and repeated calls for widespread or even universal adoption, use of MBC in routine practice remains the exception as opposed to the rule within the U.S. mental health care system. While there has been substantial agreement on the importance of standardized benchmarks and the pursuit of measurement based care, progress toward implementation has been inconsistent at best with only 18% of Psychiatrists and 11% of Psychologists regularly employing the tools of MBC in their routine practice (Fortney et al., 2015). MBC remains in limited use even in the largest mental health care system in the U.S., the Veterans Health Administration, where it was found that only 25% had received at least one outcome measure indicating that use of MBC is infrequent in VHA mental health care. (Benfer et al, 2022). This

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incongruity has been attributed variously to a lack of mandates, absence of funding needed to incentivize and train, failure of the professions to formalize and integrate MBC requirements, and lack of interoperative electronic health record (EHR) technology across U.S. healthcare which inhibits the field's ability to establish, track, and achieve standardized benchmarks in mental health (Kilbourne et al., 2018). Additional reasons for this observed disparity may include, "a lack of a sufficient evidence base from which to develop valid and strictly defined measures, inadequate infrastructure to capture all elements of a behavioral health system, and lack of a cohesive strategy to apply behavioral health quality measurement across different settings" (Kilbourne, Kaiser, & Pincus, 2010).

Notably, previous attempts to integrate MBC into real world settings have focused on the development of standalone feedback systems. Few studies have investigated strategies necessary to integrate MBC into community mental health while interfacing MBC with existing system requirements and taking into account stakeholder perceptions and needs (Lewis et al., 2015). Essock, Olfoson, and Hogan (2015) observed that the prevalence and impact of mental health conditions provide powerful motivation in terms of measuring the adequacy of their care but note that progress in measuring mental health outcomes has been uneven and inadequate. Boswell and Colleagues (2022) called for establishment of a professional practice guideline citing the robust evidence base in conjunction with the relatively meager level of uptake among providers at about 20% overall. Dr. Thomas Insel, Director Emeritus of the National Institute of Mental Health (NIMH) in his 2022 book, *Healing: Our Path from Mental Illness to Mental Health* stated that, "Training is inadequate; care is fragmented and delayed. We can improve training, care coordination, and access but the real key to improving quality is accountability, gained by measuring outcomes and learning from results." (pg. 113)

Barriers to ROM have been suggested to stem from both practical (e.g., financial burden, time, administration, training, turnover) and philosophical (e.g., clinical utility, relevance, professional concern) levels (Hatfeld and Ogles, 2004; Boswell et al., 2015). A study by Sharples et al. (2017) using semi-structured interviews and focusing on clinicians' attitudes, facilitators, and barriers to implementing ROM identified training, practical experience, and ongoing support as crucial facilitators of the use of ROM at the clinic and client levels but also perceived disadvantages relating to time and effort, concerns about how information would be used, and fears about therapists being evaluated (Rye et al., 2019).

PURPOSE AND GOALS OF THE SUMMIT

This National Benchmarks Summit was convened to challenge the status quo by identifying and clarifying persisting barriers to widespread use of standardized benchmarks in outpatient mental health care proposing actionable solutions, capitalizing on emerging opportunities, and leveraging areas of consensus to move the effort forward. To that end, the below goals were established:

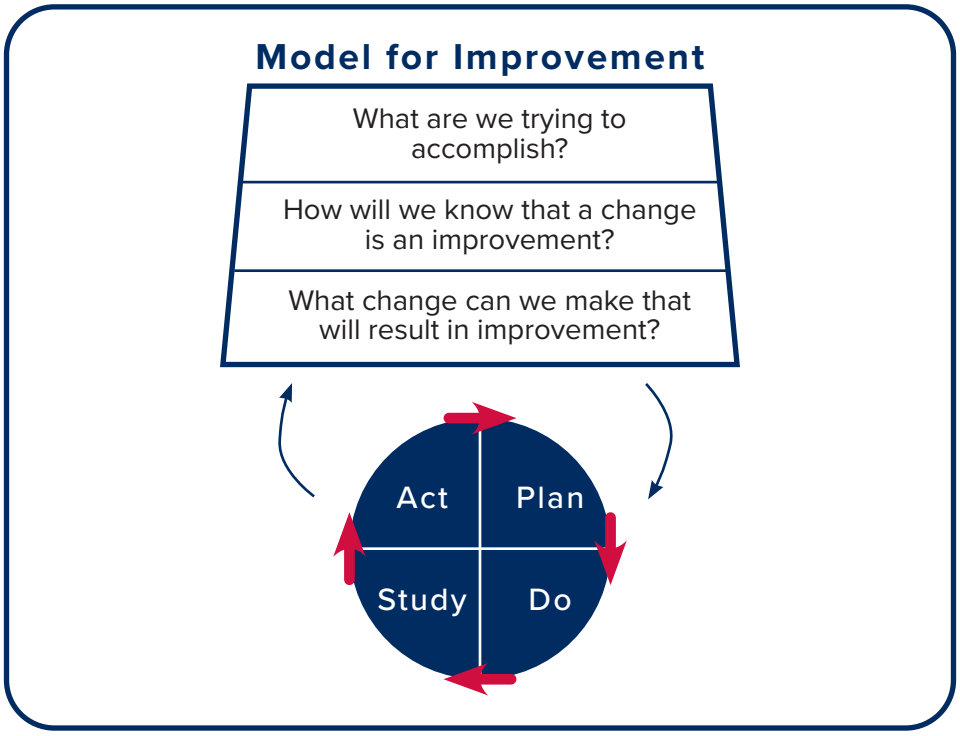
- Articulate the rationale for mental health benchmarks through clinical evidence, peer reviewed literature, and data.
- Link efforts to parity in funding, reimbursement, credibility, quality, and ethics.
- Identify critical factors and leverage points to move the effort forward toward data-driven healthcare, as well as key impediments and barriers to progress.
- Produce a report with consensus recommendations for follow-up actions.
- Amplify the **call to action** for improved behavioral health care already underway.

SUMMIT **OVERVIEW**

This Summit was structured around four anchoring presentations conducted in large group plenary sessions followed by focused small group brainstorming sessions, culminating in moderated large group discussions to distill and refine the key issues, questions, and recommendations. Throughout the Summit, attendees provided input from their respective areas of expertise with a wide range of opinions and perspectives exchanged and considered. Each set of presentations and discussions were followed by group review and synthesis sessions to iteratively refine the discourse toward development of Consensus Recommendations and a "Way Ahead" as described later in this document.

After introductions, the initial Summit discussion session was followed by a framing presentation by Lindsay Hunt from the Meadows Mental Health Policy Institute on "**Benchmarks & Measurement Based Care (MBC): Current Status and Call to Action.**" Key elements of this presentation and ensuing discussion session included:

- National/international failure to detect and treat mental illness on the needed scale;
- Delays in identification until 8-10 years after the first sign of symptoms means that treatment is typically initiated during crisis vs. through systematic screening, assessment, and management via a coordinated system of care;
- Introduction of a simple change model to take action in addressing these gaps.



To launch the next focus area, Dr. Alisa Breetz from Cohen Veterans Network presented on "**Implementing MBC in Outpatient Behavioral Health Care: Opportunities and Challenges.**" This session focused on the realities of implementation in an outpatient clinical network, highlighting a basic tenet of implementation science, in terms of "making doing the right thing the easy thing to do."

Benefits of MBC

CLIENT

- Helps clients better understand their symptoms
- Allows clients to more easily quantify and communicate their experience
- Encourages active involvement in treatment process

CLINICIAN

- Alert us to lack of progress
- Direct us to recognize important treatment targets
- Observe factors associated with change
- Inform treatment decisions
- Facilitate care coordination or collaboration

ORGANIZATION

- Aggregate data can yield practice-based evidence data for accreditation or insurance bodies, and objective measures of quality improvement efforts
- Can facilitate a population health approach

(Lewis et al., 2019)

There was significant discussion of a range of caveats, considerations, and limitations related to MBC including:

- Unintended consequences of mandating specific standardized mental health measures across settings and populations;
- The reality that the selection of any single rating scale for depression or other common disorders has unavoidable limitations;
- Significant variability in content and constructs even across commonly used measures;
- The need for inclusion of measures beyond symptom reduction, including functioning/disability, quality of life, and resilience.

Next, on behalf of The National Committee for Quality Assurance (NCQA), Sarah Scholle presented on "**Clinical Quality Research and Framework**." Key elements of this presentation and group discussion included:

- Improving behavioral health network adequacy through the development of quantifiable and benchmarkable behavioral health network adequacy measures;
- Improving behavioral health network adequacy standards and quality improvement tools;
- Developing tools and strategies to help payers and practices improve behavioral health integration;
- Identifying optimal measures for plans and providers to assess behavioral health outcomes that matter to the client and have clinical utility for providers;
- Ensuring patients are well represented in the development process;
- Current data suggest there are significant barriers to reporting and achieving high performance on existing quality measures for Depression; for example, HEDIS data show that most plans do not report on voluntary measures for Depression screening, monitoring and remission and performance rates continue to be low among plans that are able to report.

NCQA also presented the table below concisely describing gaps in the current behavioral healthcare system at the state, managed care, and practice or provider level, which have informed their current focus areas.

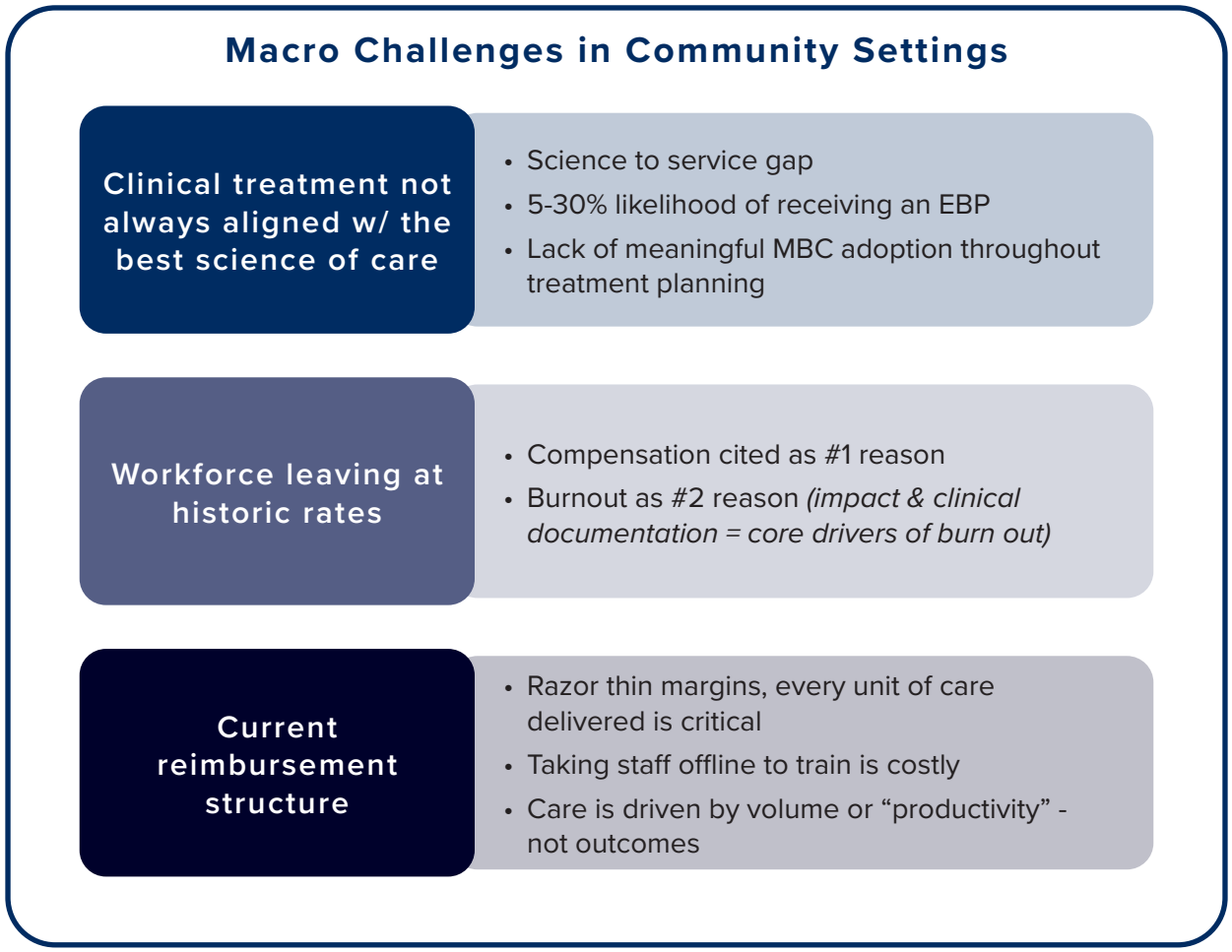
"Measuring What Matters" ***Ongoing efforts focus on gap areas***

	MEASURE CATEGORY	State	Mgd Care	Facility/ Provider
OUTCOMES	BH Symptoms and functioning improvement (i.e., measurement-based care)	X	X	X
	Patient goal attaintment		X	X
	Patient experience		X	X
	Social outcomes (e.g., kindergarten readiness, crime rate, employment rate)	X		
	BH Integration - outcomes and effectiveness	X	X	
	Cost	X	X	
	Equity in BH outcomes	X	X	X
PROCESSES	Social service coordination (e.g., linkage to social service agency)		X	X
	Health care coordination/referral success		X	X
	Evidence based treatment (e.g., Fidelity to Cognitive Processing Therapy model)	X		X
	Patient goal setting	X	X	X
	BH integration-processes (e.g., data sharing, warm handoffs)		X	X
	Equity (e.g., equitable access to BH care)	X	X	X

(Niles & Olin, 2021)

Lastly, to orient and frame the final breakout session, Lauren Conaboy from Centerstone presented an overview titled "**Key Policy Issues**" to set the stage for the development of formal consensus recommendations to follow. Major discussion points included:

- Identifying significant implementation challenges including:
  - the science to service gap whereby providers in the field are not trained or incentivized to provide the most effective care;
  - varied levels of comfort and competence among clinicians in using standardized symptom measures or PROMS (patient reported outcome measures).
- Mental health provider workforce factors including provider shortages, burnout, and regional disparities in provider availability and compensation.
- The criticality of aligning reimbursement either in fee for service or value-based care for the full cycle of MBC versus treating implementation as resource neutral.



KEY FINDINGS

The following critical needs and unresolved questions were compiled as findings that stemmed from the Summit discussions.

1 Need for Systematic Integration of MBC Into Professional Education Pipelines

There remains a lack of systematic training and integration of MBC into mental health care across settings, levels of care, and provider types. This practice gap is observed throughout the mental health workforce. There is a need for robust and deliberate integration of MBC into professional training pipelines, beginning during professional education, and continuing seamlessly through residency, licensure, and professional practice. From the receptionist to the allied health staff (clinicians and counselors), clinical supervisors and program directors, all individuals need to have a shared commitment and common understanding of both the basic elements and the potential value of ROM/MBC in assessing and improving quality of care provided.

2 Need for Improved Communication and Marketing to Key Stakeholders

There is a lack of communication to stakeholders which includes messaging and marketing to patients but also frontline care teams, administrators, payors, and the public. Based on the ubiquitous science to practice gap it is misguided to assume that even licensed providers are uniformly knowledgeable, comfortable, and motivated to incorporate MBC into their routine practice, especially given excessive caseloads, highly variable institutional support, meager incentives, and a host of conflicting priorities. It is essential for proponents and advocates of mental health benchmarks to build trust and awareness related to the rationale and evidence base for MBC and how it may improve care. This might also serve to enhance public confidence in the quality of mental health care in the U.S. and increase individual patient satisfaction with the treatment process.

3 Challenges Related to Instrument Selection/ Standardization and Measurement

There is a need to balance universal implementation of required or strongly recommended best-practice measures with latitude for flexibility and innovation based on population, setting, and the needs of individual clients. While there is significant value in using measures that are well validated, in wide use, and ideally in the public domain (i.e., PHQ-9), overreliance on a small number of existing symptom measures based on convenience or past practice will not optimize the potential of MBC. Validated tools need to be continually updated, refined, and tested in real world clinical settings. Additionally, diverse samples to establish both acceptability to clients and staff and clinical utility need to be considered. Establishing psychometric validity is necessary but not sufficient in the face of practical and logistical considerations (e.g., time constraints, staffing limitations, multilingual populations). It is not always clear what outcomes should be included and how they should be prioritized, i.e., attainment of personal goals, participation in family or community life, performing activities of daily living, keeping a job or housing, reduced recidivism, hospitalizations, or emergency room visits. Agencies and providers need to establish a rationale for assessing each parameter, restricting clinical attention to measure only what is important to the patient, their health, and the community.

4 Challenges and Strategies Around Mandates and Incentives

Mandates in public or publicly funded settings have produced mixed results, including poor compliance and in some cases compliance without substantial benefit or value to payors and clients. Although MBC may need to be incentivized by payors and funders it may be more effective to pursue culture change by establishing MBC as the standard of care across outpatient behavioral healthcare through licensure and accreditation agencies. As an illustration, more than half of private psychiatric practices in the northeast U.S. report not accepting insurance and only 43% were accepting Medicaid (Bishop et al., 2014), thus less than 50% could be compelled by third-party payors to use MBC. Nonetheless CMS remains the largest single payor nationally so the impact of public healthcare policy changes would be substantial. Additionally, there was significant concern among attendees that use of mandates or incentives would be too heavy handed or proscriptive. Allowing for discretion over tools and implementation strategies at the state, agency, and potentially the practitioner levels, in conjunction with education, training, and reimbursement for the *full costs* associated with MBC was considered essential by Summit attendees. Implementation strategies also require consideration of setting, population, etc. to ensure a commitment-fueled versus a compliance-driven paradigm which might be counterproductive in terms of achieving the overarching goals of improving mental health care quality and outcomes.

5 Need for Policies to Address Resourcing and Reimbursement

Increasing resources and reimbursement for adding MBC training, providing access to assessment tools, and incorporation into clinical decision-making is essential for widespread and sustained implementation of MBC. Enhanced payment based on CPT codes for administering and reviewing patient responses to assessment tools may unfortunately be insufficient to address the true costs of MBC implementation. The costs and benefits of using patient portals, employing technicians to administer patient assessment tools for selected patients, embedding tools in EHRs, and/or more comprehensive reimbursement models could be studied as a mandated element in the expansion of U.S. Certified Community Behavioral Health Clinics.

6 Call for a Professional Culture Shift

While financial incentives may promote MBC adoption to some degree, Summit attendees suggested that modeling of consistent use of validated patient assessments (like regularly checking blood pressure) and affirmation of this practice by senior clinicians, instructors, and supervisors may be most effective in ensuring that mental health providers use MBC as a routine part of their professional practice. Culture change based on early and consistent exposure and reinforcement throughout the training to practice pipeline was felt to be a critical element in adoption, possibly in conjunction with mandates or incentives.

7 Untapped Opportunities for Standardization, Comparability, and Data Sharing

Large scale meta-data is currently collected but is stove-piped within federal agencies and databases versus being standardized and integrated or data-mined to generate data insights and models for the field. Establishment and use of common data elements and mechanisms for sharing and aggregation across service providers is necessary to inform the field and answer basic questions related to benchmarks, standards, and thresholds. Further, there is currently no clear consensus on when treatment results are "good enough" or optimal, how outcomes should be defined, and what constitutes recovery or cure. Symptom measures predominate in practice but measures of functioning and quality of life, or wellbeing could be employed as primary or adjunctive as well. Finally, there are no current guidelines as to the comparability of clients across settings or populations or the criteria for matching or determining comparability. Opportunities for further research and development to address these limitations are substantial.

8 Imperative to Increase Focus on Diversity, Equity, and Inclusion

The historical under-representation of ethnoracial minorities and other minoritized groups in the development and validation of standardized measures and evidence-based practices is well established (Whaley & Davis, 2007; Ghafoori and Khoo, 2020; Grau et al., 2022). Cultural and linguistic biases and limitations need to be considered and cultural competence in screening, assessment, and treatment planning are critical. Benchmarks need to be established with a level of flexibility and cultural humility to account for the full range of client backgrounds and experiences. A balance may need to be struck between standardization and comparability of instruments with standardized processes that deliberately address inclusion. Sociodemographic factors including race, gender identity, sexual orientation, culture, ethnicity, socioeconomic status and the intersectionality among these may be relevant to the choice, utility, and validity of standard measures which must be administered, scored, and contextualized in a culturally competent manner. Despite the longstanding consensus around these issues in academia, progress in clinical settings has been modest at best. There is considerable work still to be done.

CONSENSUS RECOMMENDATIONS

POLICY

ADVOCACY with Congressional Leaders

Mental healthcare leaders should form a broad-based coalition to:

- Develop and implement a congressional outreach strategy for educating members of Congress and relevant committee staff on the clinical value of MBC.
- Collaborate with congressional offices to introduce legislation that implements new pilot programs, such as grants and payment models, that accelerate adoption of MBC at the practice level.
- Identify opportunities to brief congressional appropriators and/or the federal agencies that implement federal funds relative to mental health/substance use disorder on the need for investment in MBC.

ACTIONS by Agencies and Payors

- Advance strategies that encourage public and private payers to align incentives and reimbursement mechanisms which support provider adoption of MBC.
- Ensure payment methodologies support advancement by covering the full costs of MBC implementation including training staff to fidelity, adopting, and maintaining IT products and systems, including electronic health records, etc.
- Encourage significant public/private investments to accelerate behavioral health IT adoption. Federal and state agencies can play a critical role in bolstering providers' IT capabilities through policies, incentives, and focused resources.
- The Centers for Medicare and Medicaid Services (CMS) should explore increasing and/or bundling rates for specific Current Procedural Terminology (CPT) codes that support MBC and that CMS solicit comment from stakeholders via their annual

Physician Fee Schedule public comment period. These CPT reimbursements should take into consideration the full cost of implementing MBC to fidelity.

- CMS should publish guidance for payers detailing strategies to support provider level adoption of MBC.
- Industry leaders and members must urge academic accreditation bodies, i.e., the Committee on Social Work Education (CSWE), American Psychological Association (APA) as well as other professional organizations and state licensure authorities to integrate MBC into the standards of care for behavioral health through core training requirements, CEUs, etc.
- Substance Abuse and Mental Health Services Administration (SAMHSA) should evaluate opportunities within the Certified Community Behavioral Health Clinic (CCBHC) model to support the acceleration and adoption of MBC either via updates in the core set of clinical criteria that CCBHCs report upon and/or in providing guidance that such costs may be allowable costs as part of a CCBHC's prospective payment rate. [1]
- State Medicaid agencies should build MBC into their cost report structure for the CCBHC prospective payment rate allowable costs.[1]

PRACTICE

ENGAGING
Key Stakeholders

- Behavioral healthcare organizations must redouble efforts to highlight and demonstrate the value of MBC to key stakeholders instead of naively assuming that they are knowledgeable, prepared, and supportive. This applies to frontline care teams (e.g., clinicians, technicians) but more broadly, administrators, payors, legislators, licensure bodies, and the public.
- Behavioral healthcare organizations should leverage annual meetings and training conferences to reach educators (National Foundation for Behavioral Health, State Meetings, APA, Training Directors Conferences, Association for Behavioral Cognitive Therapy, National Alliance for the Mentally Ill). They must identify the internal champions embedded within these organizations to advocate for MBC.
- Enterprise-level culture change should focus on altering fundamental attitudes and expectations about the use of patient-assessment tools and MBC to enhance quality, effectiveness, and accountability in outpatient mental health care.

[1]*Note: At the urging of Summit attendees, the lead author forwarded input per this recommendation on behalf of the Summit to SAMSHA during the public comment period for CCBHC reauthorization in Nov 2022.*

- Patients should be educated to expect questionnaires and standardized assessment measures further reinforcing MBC as a professional and industry standard.
- Behavioral healthcare organizations must identify champions to develop and publish the business case for MBC for organizations of different sizes and budgets including templates to facilitate widespread adoption.

STRENGTHENING
Professional Standards and Training

- Professional education providers should embed training in administering and interpreting validated patient assessment tools throughout the mental health (and primary care) training pipelines, as a professional norm and standard of care.
- State and professional licensing boards should leverage recurring ethics training requirements to increase uptake of evidence based practice including ROM/ MBC, framing such approaches as ethical requirements.
- Professional organizations, training, and accreditation agencies should increase emphasis on standardizing care for specific diagnoses and clinical syndromes using tools such as Clinical Practice Guidelines (CPGs) and set the expectation that clinical decisions are predicated upon evidence (or lack of evidence) of treatment response.

ADVANCING
Technology

- Electronic health records (EHRs) must be designed to make measurement tools easy to access, transmit, complete, and review. Make "doing the right thing the easy thing" by ensuring compliance with an MBC protocol without encroaching excessively on limited patient-clinician time.
- Behavioral healthcare organizations and EHRs should consider automating some processes via the use of patient portals for patients to complete self-assessments prior to visits or using specially trained technicians to obtain patient self-assessment data/ PROMS prior to clinical sessions.

RESEARCH

Research STRATEGIES

- In order to establish preliminary benchmarks for existing mental health treatments and SUDs, researchers should study and leverage available metadata from the DoD/MHS, VA, and SAMHSA's Behavior Health Services Information System (BHSIS), which collects and analyzes data from major national databases and the Uniform Reporting System (URS) including data collected from state Mental Health Block Grants.
- Clinical quality experts should create a set of common data elements promoting uniformity across diagnostic categories and prioritizing indicators with clinical utility.

Research OPPORTUNITIES

- Conduct further research on facilitators of MBC. There is currently more research on barriers and less on facilitators.
- Expand research to address which symptoms and outcomes matter to individual patients, practices, and systems so that validated tools used in MBC can be aligned and updated accordingly.
- Build partnerships between academic and clinical entities to conduct studies on the impact of ROM/MBC on improving diagnoses, initial and ongoing treatment selection, and particularly outcomes in order to develop valid benchmarks based on real-word, patient-generated evidence.
- Conduct research on MBC and workforce wellness outcomes (e.g., burnout, retention) to validate impact on clinicians and frontline staff.
- Fund mechanistic deconstruction studies on MBC fidelity elements and client outcomes (e.g., MBC in decision making vs. MBC in feedback delivery) to identify contributions and impact of MBC components.
- Invest in studies of differential client trajectories based on treatment response and outcomes over time to improve both clinical effectiveness and resource utilization.
- Conduct economic analysis to substantiate cost effectiveness of MBC including comparison across models or protocols for assessing clinical change and quality.

- Develop studies and analyses focused on social determinants, equity, and representation - don't inadvertently bake in bias.
- Conduct systematic studies to determine optimal measurement schedules and timeframes, in light of clinical realities and patient needs (monthly, weekly, pre-post, at every session).
- Include clinical leaders and administrators to educate researchers and advocate to strike a balance between the realities of client burden and resource utilization versus clinical value, quality operations, and accountability to payors and funders.
- Allocate funding for additional research on the full range of indicators of clinical significance versus narrowly defined symptoms to realize the full potential of MBC.
- Focus efforts on identifying a unit of change that is actionable during a typical episode of care (EOC) to enhance practical value.
- Undertake research to build algorithms and feedback loops for patients: i.e., ranges for scores and intuitive feedback (infographics); well-delineated alerting policies and clinical pathways to track improvement and deterioration within each diagnostic category/measure.

Measures and MEASUREMENTS

- Fund further study of measures that are optimally sensitive to change and how change may be compared across measures.
- Research the utility of patient-specified measures in goal setting.
- Utilize CCBHC measures as a starting point.
- Validate that MBC measures are properly normed to understand how they vary across settings and subgroups.

THE WAY AHEAD

This National Benchmarks Summit convened a group of 28 subject matter experts from across the U.S. mental health landscape to discuss the current use of benchmarks and MBC and to strategize how best to advance their use to improve practices and outcomes in outpatient behavioral healthcare. Discussions and debate throughout the Summit identified an array of specific challenges as well as consensus recommendations to overcome persisting barriers and move toward widespread adoption of MBC.

A further goal of this convening was to sustain and reinvigorate the "**Call to Action**" across the field to act decisively to implement improved practices with regard to routine mental health practice across disciplines based on the best available evidence and measured systematically from the patient to the enterprise level. It is our fervent hope that in conjunction with the efforts of many like-minded colleagues across the field, this Summit will contribute to continued progress toward these goals!

ACKNOWLEDGEMENTS

CVN would like to acknowledge **Oracle Cerner** for their generous grant funding which helped to make this Summit possible.

CVN is also very grateful to the presenters, group leaders, reviewers, and all participants for volunteering to share their knowledge, data, and expert opinions with the panel.

Lastly, special thanks those who planned and organized the summit and synthesized expert input to produce this white paper:

- Danielle Besuden, Summit Scribe, Cohen Veterans Network
- Lauren Conaboy, Centerstone
- Lindsay Hunt, Meadows Health Policy Institute
- Claire Lawless, Summit Scribe, Cohen Veterans Network
- Gwen Solan Littman, Freelance Rapporteur, Contributing Author, and Editor
- Ashley McKinley, Summit Coordinator, Cohen Veterans Network
- Stephanie Renno, Summit Planner, Cohen Veterans Network
- Paula Schnurr, National Center for PTSD

ATTENDEE BIOGRAPHIES

Matthew F. Amidon, MBA, MS

Colonel Matthew F. Amidon, United States Marine Corps, is the Director of the Military Service Initiative at the George W. Bush Institute. Colonel Amidon leads the day-to-day efforts of the Military Service Initiative and the team leading our policy and programmatic work on veteran transition. Recently, Colonel Amidon completed his commitment to the Creating Options for Veterans' Expedited Recovery (COVER) Commission. COVER provided advice via its report to the VA, the President, and Congress, and examined the benefits of integrative treatments for the mental health conditions of veterans. The commission also analyzed the benefits of incorporating complementary and integrative health treatments in non-government affiliated facilities. Colonel Amidon is a graduate of The University of Vermont and earned his MBA at Southern Methodist University Cox School of Business in 2009. In 2012, he attended The Eisenhower School for National Security and Resource Strategy where he earned a Master of Science.

Alisa Breetz, PhD

Alisa Breetz is Senior Manager of Clinical Practice at Cohen Veterans Network. She provides assistance and guidance for network-wide clinical practice initiatives, including evidence-based practice and measurement-based care to support delivery of clinical services to veterans and military families. Dr. Breetz previously worked as a clinician and clinical supervisor in a private group practice where she specialized in evidence-based practices, particularly Dialectical Behavior Therapy (DBT), Cognitive Behavior Therapy (CBT,) and Prolonged Exposure (PE) Therapy. During that time, she also served as an adjunct instructor of psychology at American University and presented clinical trainings at Walter Reed Army Medical Center and at Harvard Medical School/ Massachusetts Mental Health Center. She brings expertise in suicide prevention and trauma treatment and additional experience working with veterans at the Washington, DC VA hospital and with service members at Andrews Air Force Base and the US Naval Academy. She completed her BA in Cognitive Science at Brown University and her MA and PhD in Clinical Psychology at American University, with residency training at Duke University Medical Center

Colette A. Bukowski, MA, LPPC-S

Colette Bukowski is the Associate Director of Business Development for Behavioral Health Care and Human Services for The Joint Commission. Prior to assuming this role, Ms. Bukowski served as a Behavioral Health Care Surveyor for over two years for the Joint Commission. Ms. Bukowski has over 25 years of experience in the Behavioral Health arena, as both a clinician and administrator in several types of Behavioral Health Care settings and programs serving children, youth, and adults. She has significant experience in operational management and business development, as well as quality, process, and performance improvement initiatives. Colette Bukowski is a Licensed Professional Clinical Counselor with a Supervisor Designation in the State of Ohio. She completed her Master's degree at The George Washington University in Community Counseling and completed a post Master's Certificate in Counseling at Johns Hopkins University.

Carl Andrew Castro, PhD

Carl Castro is currently Professor and Director of the Military and Veteran Programs at the Suzanne Dworak-Peck School of Social Work at the University of Southern California. Before joining the University of South-

ern California, Professor Castro served in the U.S. Army for over 30 years, beginning his career as an enlisted infantryman and retiring at the rank of colonel. Dr. Castro has chaired numerous NATO and international research groups and he is currently Co-Chair of a NATO group exploring military and veteran violent radicalization. He earned his BA at Wichita State University, and both his MA and PhD at the University of Colorado.

Lauren Conaboy, MSSW/MFT, Marriage and Family Therapy/Counseling

Lauren Conaboy is the Vice President of National Policy at Centerstone, a nonprofit health system specializing in mental health and substance use disorder treatments. As Vice President of National Policy, Conaboy works to advance policy and regulatory initiatives to accelerate access to affordable, patient-centered behavioral health services that are rooted in the best science of care. Through her advocacy, Conaboy has directly influenced the passage of several bills including legislation to create the nation's first ever three digit dialing code for suicide prevention (9-8-8) as well as directly influenced several provisions of the 2018 SUPPORT Act, a bill designed to combat the nation's opioid crisis. Conaboy previously worked as the Government Affairs Director for Seven Counties Services in Kentucky, where she advanced policies to increase access to addiction treatment services, engaged in the state's 1115 waiver process, and co-chaired a committee that modernized the state's telehealth regulations for Medicaid. In addition to over a decade of experience running state and national public policy and advocacy campaigns, Conaboy has also worked in the clinical realm as a marriage and family therapist. In 2019 Conaboy was recognized by Business Insider as a top DC Health Policy Power Player.

Katherine Dondanville, PsyD, ABPP

Katy Dondanville is a Licensed Clinical Psychologist and Associate Professor and at the University of Texas Health Science Center at San Antonio. She is the Director for the STRONG STAR Training Initiative which is a grant funded implementation and dissemination program for evidence-based psychological treatments. Since 2017, the Training Initiative has trained more than 2000 mental health providers across 42 states, Canada, and England disseminating evidence-based treatments to thousands of individuals with PTSD, suicide, insomnia, and nightmares. She has consulted with numerous community organizations and clinicians regarding the successful implementation of evidence-based treatments. Dr. Dondanville's research focus is on delivering and improving access to evidence-based treatments. She is a mentor to junior faculty a well as 24 clinical psychology postdoctoral fellows. and has published approximately 75 scientific manuscripts and conducted over 150 presentations at research conferences and meetings.

Carrie Farmer, PhD

Carrie Farmer is co-director of the RAND Epstein Family Veterans Policy Research Institute, Director of the Health Care Quality Measurement and Improvement Program, and a Senior Policy Researcher at the RAND Corporation. Her areas of research include military and veteran health policy and quality of health care. She has led multiple studies to assess the delivery of healthcare to veterans and service members, including studies to establish a definition and set of standards for high-quality care for invisible wounds of war, a study of the use of measurement-based care in the treatment of behavioral health conditions in the Veterans Health Administration, and studies to assess the capacity of community providers to meet the health care needs of veterans. Dr. Farmer was the Study Director for a large, comprehensive assessment of the Veterans Health Administration required by the Veterans, Access, Choice, and Accountability Act of 2014, and has provided testimony to Congress on the timeliness and quality of care delivered to veterans by VA. She received her B.A. in psychobiology from Wellesley College and her Ph.D. in health policy from Harvard University.

Keita Franklin, LCSW, PhD, PMP

Keita Franklin is a Senior Executive and Social Scientist, who has led mental health and wellness programming across all branches of the military. She led the Suicide Prevention programs as a Senior Executive in both the DoD and VA. She is also a project manager professional with additional certification in advanced research methods and analysis. She is a subject matter expert on issues impacting military families, has authored numerous pieces on military families and has served as a resilience/wellness subject matter expert; presenting testimony in congressional hearings, at federal commissions, and events with the National Academies of Science. Her

expertise extends into the areas of human behavior, women in the military, military families, trauma, alcohol abuse, and suicide prevention. She earned her PhD in social work from Virginia Commonwealth University and an advanced certificate from the Center for Advancement of Research Methods and Analysis (CARMA). She also holds certificates from the Harvard Kennedy School Executive Education on "Leading Organizational Change" and "Women in Leadership," as well as the University of North Carolina Chapel Hill Kenan-Flagler Business School Course on "Executive Leadership."

Allyson Gage, PhD

Allyson Gage is a neuroscientist and drug development executive at Cohen Veterans Bioscience, who has over 18 years of experience leading teams in all phases of clinical development. She has been responsible for the overall strategic and clinical development of small molecules, biologics, and cellular therapies for the treatment of central nervous system disorders, including depression, alcohol dependence, Alzheimer's dementia, neuropathic pain, traumatic brain injury, and spinal cord injury. Allyson has a proven track record in partnering with therapeutic area clinicians, US and International regulators, patient groups, and data scientists to translate pre-clinical information into human evaluation, to design informative clinical trial protocols, and ensure a regulatory path with approvable and clinically meaningful outcome measures. Prior to joining Cohen Veterans Bioscience, Allyson's most recent experience was focused in the field of regenerative medicine, working toward the development of a therapeutic for spinal cord injury. Allyson earned her BA from Rutgers College in New Brunswick, NJ and her MS and PhD in neuroscience from Albert Einstein College of Medicine, New York.

Danny Gladden, MBA, MSW, LCSW

Danny Gladden serves as General Manager and Director of Behavioral Health and Social Care for Oracle Health, where he is responsible for Oracle Cerner's behavioral health and social care solutions. A licensed clinical social worker, former community BH & SUD practice Chief Operating Officer and a practicing mental health and SUD treatment clinician, Danny champions real time, barrier free access to mental health and SUD treatment services with a particular focus on consumers at risk of suicide and those living with severe and persistent mental illness. Danny previously served as clinical leader of a National Suicide Prevention and Veterans crisis contact center and is an Adjunct Clinical Professor of Social Work at St. Louis University School of Social Work.

Lindsay Hunt, MEd

Lindsay Hunt is the Senior Director, Clinical Transformation at the Meadows Mental Health Policy Institute where she leads national programs to accelerate the adoption and spread of best practices in behavioral health. Prior to joining the Meadows Institute, Lindsay was the Director of Systems Transformation with the Harvard Medical School Center for Primary Care. In this role, Lindsay was responsible for the overall management of the Center's Systems Transformation and Leadership portfolio. While at the Center, Lindsay designed and led a national accelerated improvement program focused on increasing the COVID-19 vaccination rate for at-risk populations. She also helped secure and lead a five-year HRSA-funded telehealth-enabled education program for rural health systems in West Virginia, Arkansas, and Oklahoma. Lindsay also worked for nine years at the Institute for Healthcare Improvement (IHI) where she helped to launch The Conversation Project, a national campaign to promote end-of-life conversations. Lindsay earned Bachelor of Arts from Cornell University, her Master of Education from Northeastern University, and her Master of Health Care Transformation from the University of Texas at Austin.

Michael W. Johnson, MA, CAP

Michael Johnson is currently the Senior Managing Director for Behavioral Health at the Commission on Accreditation of Rehabilitation Facilities (CARF) International, a role he has held since 2013. He is responsible for the development of standards in behavioral health to maintain currency with best practices in the field, interfacing with regulatory entities and payers, consultation and training, and market development. With more than 40 years of experience in the behavioral healthcare field. Michael has worked as a technician on a psychiatric inpatient unit, followed by roles in clinical, management, and C-level roles in both mental health and

substance abuse agencies. He has been a leader in the industry, providing expertise to national and state initiatives in quality, ethics, training, accreditation, and Electronic Medical Record adoption. Michael is passionate about the use of data and technology in our industry and is a tireless advocate for improving performance in behavioral health. He earned both a Bachelor of Arts degree in Interpersonal Communications and a Master of Arts degree in Communications from the University of Central Florida. He is also a Certified Addictions Professional in the state of Florida. Michael also is a veteran of the U.S. Air Force.

Robin Kelleher, BA

Robin Kelleher currently serves as President and Chief Executive Officer of Hope for The Warriors®, the organization she co-founded in 2006. Robin's entrepreneurship, leadership, and passion has led this highly successful once grassroots effort to national heights, significantly impacting the wounded and fallen military communities. Robin is responsible for developing and implementing the strategic direction of the organization, providing budgetary and mission-focused guidance to the growing staff of Hope for The Warriors®. She works directly with the Board of Directors and plays a key role in developing the board and maintains oversight of all operations. Robin is a member of the Greater Washington Board of Trade and serves on their Membership Committee, Health & Wellness Solution Group, and Executive Leadership Committee, as well as a member of the Defense Advisory Committee on Women in the Services (DACOWITS). She also sits on the Military Family and Veterans Service Organizations of America (MFVSOA) Board of Directors, the Virginia Chamber's Military & Veterans Affairs Executive Committee, and the Advisory Council of Blue Star Families. She is also a Charity Navigator Nonprofit Advisor. Robin has worked extensively with military families, caring for family units during multiple deployments as the wife of a Marine. She holds a bachelor's degree in business and economics from Randolph Macon College and Certificate in Executive Leadership from Duke University.

Alice Kim, MA

Alice Kim is the Chief Operating Officer of the Cohen Veterans Network. She oversees the operations and administration of all its programs and initiatives. Previously, she was the Director of Operations at the Center for Innovation and Research on Veterans & Military Families (CIR) at the University of Southern California School of Social Work. Kim oversaw the day-to-day operation of CIR and managed several large research projects funded by the Department of Defense to enhance the competence and capacity of civilian behavioral health care providers working with military populations. Kim also led the development of numerous cutting-edge programs such as an online training platform for behavioral health professionals, virtual avatar trainers for evidence-based practice and clinical skill, observed structured video examination (OSVE) for military clinical skill assessment, and inter-professional education using military-focused standardized patients. Her work has focused on behavioral health care, community development, social welfare, and education. Kim received her BA from the University of Chicago and her MA from the University of Chicago, School of Social Service Administration.

Rebecca Murrow Klein, MBA, MA

Rebecca Klein has over 13 years of experience in health policy, legislative affairs, and leadership in the non-profit, trade association, and government spaces. In her role as Vice President of Federal Affairs at the Meadows Institute, Rebecca guides policy development and strategy for the Institute and advance policy initiatives and appropriations on Capitol Hill and in the Administration. Prior to joining Meadows, Rebecca was the Director of Government Affairs at the Association for Behavioral Health and Wellness (ABHW), where she designed and implemented the organization's legislative strategy. She developed and chaired a coalition of over 40 health care stakeholder organizations committed to modernizing substance use disorder privacy regulations. Under her leadership, the coalition saw language addressing the issue ultimately enacted into law. Rebecca also led efforts to increase access to tele behavioral health and directed ABHW's Stamp Out Stigma initiative. Rebecca previously worked as a Legislative Assistant for U.S. Senator Ben Nelson (D-NE), advising him on health care policies around the implementation of the Affordable Care Act. Rebecca holds Bachelor of Arts degrees in Political Science and Judaic Studies from the University of Michigan and a Master of Business Administration and Master of Arts in Government from Johns Hopkins University.

Steven Lancaster, MA, PhD

Steven Lancaster is a researcher with the Cohen Veterans Network – Institute for Quality. His background is in clinical psychology. Prior to joining CVN he worked in higher education serving as a Full Professor and Chair of the Department of Psychology at Bethel University in St. Paul, Minnesota after working at Drake University in Des Moines. His research has primarily focused on trauma, PTSD, moral injury, and identity related topics in military veterans. He received his BA from Bethel University, and both his MA and Ph.D. in Clinical Psychology from Southern Illinois University.

David Linkh, LCSW, PhD

David Linkh has served as the inaugural Director, Institute for Quality, Cohen Veterans Network (CVN) since Nov 2021. In this role, he is responsible for improving mental health outcomes and quality of life for service members, veterans and their family members through research and innovation and building the CVN research portfolio. He held progressively responsible clinical, research and command jobs in the US Air Force for over 26 years prior to his retirement in 2021. Past and current research focus areas include psychological trauma/PTSD, suicide prevention, resilience, and translational research/implementation science.

Kate McGraw, PhD

Kate McGraw is a clinical psychologist at the Department of Defense, currently serving as Chief, Psychological Health Center of Excellence (PHCoE). Previously, she served as Senior Research and Evaluation Advisor with the Presidents Roadmap to Empower Veterans and End the National Tragedy of Suicide (PREVENTS) Office, detailed from the Department of Defense. Prior to this role, she was the Acting Division Chief and Deputy Division Chief of the Psychological Health Center of PHCoE. Her work at DoD was focused on psychological health policy, research, implementation, and treatment gaps, especially in areas related to mental health needs of military and veteran women, service members who disclose sexual assault, ostracism, implementation science, and global behavioral health. Kate received a bachelor's degree in piano from the Hart School of Music, University of Hartford; master's degree in human services, University of Great Falls (Providence); and doctorate in clinical psychology, University of Texas Southwestern (UTSW) Medical Center at Dallas. She was also Distinguished Graduate, USAF Officer Training School, and Distinguished Graduate, ICBM Missile Combat Crew Initial Qualification Training School.

Tracy A. Neal-Walden, PhD

Tracy Neal-Walden is the Chief Clinical Officer for Cohen Veterans Network. As the Chief Clinical Officer, she provides clinical vision and strategic leadership in mental health, psychiatry, substance use, case management and clinical training for the clinical staff, as well as our veteran and military family clients. She leads the development and implementation of network-wide clinical practice guidelines and ensures all clinics within the network meet the highest professional standards of access, empirical quality care, and ethical service delivery. She is a veteran of the United States Air Force and served for over 24 years as a military psychologist/clinician, officer, leader, and academic; retiring in the rank of Colonel. She served as the Air Force's Director of Psychological Health and Chief of Behavioral Health, as well as numerous other clinical and senior level leadership positions; developing and implementing policy for 75 military treatment facilities. She is actively involved in the professional community serving on the Substance Abuse and Mental Health Service Administration's National Advisory Council, the American Psychological Association's Continuing Education Committee's Advisory Council, and the Editorial Board of Clinical Psychology: Science and Practice. Dr. Neal-Walden received her Doctorate in Clinical Psychology from Drexel University-Hahnemann Medical Campus and completed a two-year post-doctoral fellowship in Clinical Health Psychology at Wilford Hall Medical-Surgical Center

Kelly Posner, PhD

Kelly Posner is a Clinical Professor of Medical Psychology in the Psychiatry Department at Columbia University. She developed the Columbia Protocol, governing drug development, which is now established policy throughout the U.S., national agencies, and most countries. She previously worked at the U.S. Department of Defense and at the CDC on suicide risk assessment and interventions. She gave the lead presentation in a U.S.

Senate forum on school safety in her partnership with the Parkland community. Through her advocacy she has helped change local, national, and international policy, which in turn has contributed to reductions in suicide across all sectors of society. She gave the invited presentation on tackling depression and suicide at the first European Union high level conference on mental health; was recognized as the Most Distinguished Alumna of her graduate school at Yeshiva University in the past 50 years; and has received the New York State Suicide Prevention Award. Dr. Posner has been awarded the United States Secretary of Defense Medal for Exceptional Public Service

Carie Rodgers, PhD, ABPP

Carie Rodgers is a licensed, Board-Certified Clinical Psychologist currently serving as Chief Program Officer at the PsychArmor Institute and is also a Clinical Professor of Psychiatry at the UCSD School of Medicine. Previously, she was the Associate Director of the Education & Dissemination Unit at the VA Center of Excellence for Stress and Mental Health in San Diego, California. She has served as a National Trainer for the Veterans' Administration (VA's) Cognitive Processing Therapy initiative and as a consultant for the National Center for PTSD. She has provided training and consultation to hundreds of mental health providers in the VA and the Department of Defense, as well as in the broader community. Dr. Rodgers was also a Consultant for the VA's national roll-out of Prolonged Exposure Therapy and was the Director of the VA San Diego Military Sexual Trauma Program. She received her Ph.D. in Clinical Psychology from the University of Oregon, and her internship and postdoctoral training at UCSD and the San Diego VA.

Paula Schnurr, PhD

Paula Schnurr is the Executive Director of the National Center for Post-traumatic Stress Disorder in the Office of Mental Health and Suicide Prevention in the Department of Veterans Affairs. She helped found the Center in 1989 and previously served as Deputy Executive Director. She is a Professor of Psychiatry at the Geisel School of Medicine at Dartmouth and Editor of the Clinician's Trauma Update-Online. She is a former Editor of the Journal of Traumatic Stress, Past-President of the International Society for Traumatic Stress Studies, and a fellow of the American Psychological Association. With over 300 publications, she has won several awards for her research and contributions to the field of traumatic stress studies. Her research focuses on the treatment of PTSD and on the longitudinal effects of traumatic exposure on physical and mental health. She earned her BA from the State University of New York In Buffalo, her PhD from Dartmouth University and completed a Post-Doctoral Fellowship at Dartmouth Medical School.

Sarah Hudson Scholle, DrPH

Sarah Hudson Scholle is Vice President, Research and Analysis, at the Johns Hopkins University. She also serves on the National Committee for Quality Assurance and is an expert in health services and quality measurement in multiple settings. She has a demonstrated record of moving innovative concepts into implementation through NCQA's programs and Healthcare Effectiveness Data and Information Set (HEDIS). Her expertise ranges from equity and person-centered care to delivery system improvement. Her work on equity has addressed disparities in care, methods for summarizing and incentivizing health equity, and approaches for improving data. She has conducted numerous projects to advance the use of patient-reported outcomes in clinical care and quality measurement, including a novel approach to personalized goal setting. She has also led activities in measurement related to care coordination, patient-centered care, and the patient-centered medical home (PCMH).

Jennifer Silva, BS

Jennifer Silva serves as chief program officer of Wounded Warrior Project® (WWP). In this role, she is responsible for strategic direction, management, and coordination for WWP programs and services. Previously, Jennifer led the WWP strategy and innovation team, overseeing the creation of cutting-edge programs and development of business analytics and outcome measurements. Prior to this, she led the economic empowerment team, focusing on education and employment programs for wounded warriors and their families. She was the director of the WWP TRACK™ program and later served as program metrics and integration director, mea-

suring the effectiveness and outcomes of all WWP programs. Jennifer earned her BS from the United States Military Academy at West Point and served in the Army as a logistics officer.

Amy Smith Slep, PhD

Amy Smith Slep is a Professor at New York University and co-directs the Family Translational Research Group, comprising an interdisciplinary team of researchers focused on understanding violence in families and the effective implementation of prevention approaches. She focuses on different aspects of conflict and violence in relationships and families, and how to best prevent relationship and psychological health problems. She also focuses on how communities can improve population risk profiles and best implement evidence-based prevention practices. Her work on definitions of maltreatment has resulted in definitions that are now being used throughout the U.S. military, are being implemented across the state of Alaska, have influenced the DSM, and are being included in the ICD-11. She has published over 150 scientific articles and book chapters and has received approximately 75 federal research grants. She earned her PhD in Clinical Psychology from Stony Brook University and is a licensed clinical psychologist.

Col. Christian J. Smith, MD

Christian Smith currently works for the Air Force Surgeon General's Division of Healthcare Operations at the Air Force Medical Support Agency. He advises the Air Force Surgeon General and senior AF and Congressional leaders on all psychological health policy matters in support of 76 medical treatment facilities world-wide and serves as a strategic partner with the Department of Defense, Veteran's Affairs, federal agencies, academia, and allied medical services on mental health and international medical affairs.

Sheetal Sood, CHC, CISSP, CRISC, CIPP/US, GSEC

Sheetal Sood is the Chief Information Officer at Cohen Veterans Network. She is responsible for the strategy, implementation and optimization of CVN's information systems including business systems, health information and data sciences. Sheetal also serves as CVN's information security officer responsible for CVN's cybersecurity strategy and implementation of the organization's security program including policy and education, data confidentiality, risk analyses, and incident response. Sheetal is a healthcare information management, information security and technology innovation leader with over 20 years of industry experience. She specializes in the areas of information governance, technology risk management, cyber security, business continuity, privacy audits, information systems investigations, security awareness and training programs and healthcare compliance.

Paul J. Wood, BA

Paul Wood serves as Chief Communications and Marketing Officer for Cohen Veterans Network and is a member of the C-Suite. He is responsible for setting the overall communications strategy for CVN and oversees internal and external communications, reputation management, national marketing, brand management, media relations, thought leadership, social & content strategy and storytelling, national partnerships, and community outreach. Prior to joining Cohen Veterans Network, Wood was a partner at Ketchum, a top global public relations firm, where he held a variety of roles focused on client leadership, practice leadership, client experience, and growth. He has expertise in using strategic communications programming to drive organizational outcomes. While at Ketchum, Wood developed cause and public education campaigns for Michelin, Empire Blue Cross/Blue Shield, The New York State of Health, and other clients. Wood received a BA in English from The University of California at Irvine. He also holds certificates in Digital Disruption and Digital Marketing and Social Media.

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For any questions, comments, or inquiries, please contact:

David J. Linkh, LCSW, PhD
Director, Institute for Quality
Cohen Veterans Network, Inc.
david.linkh@cohenveteransnetwork.org