The COVID-19 pandemic has highlighted the importance of telehealth and hybrid care models in health care delivery. These models offer many advantages, including improved access to care, increased efficiency, and personalized care experiences for patients. For patients with chronic pain and SUD, including OUD, telehealth and hybrid care models have shown significant potential in bridging treatment gaps, enhancing accessibility, increasing patient engagement and retention, and improving health outcomes (Jones et al., 2022; Aronowitz et al., 2021; Martin et al., 2021; Sugarman et al., 2021; Emerick et al., 2020; Uscher-Pines et al., 2020). Federal agencies and national health care organizations recognize the benefits of telehealth and emphasize the importance of expanding telehealth services for the treatment of chronic pain and SUD (ASAM, 2022; CMS, 2022; NIH, 2022; SAMHSA, 2021c).

However, while telehealth has gained significant support, the evidence base for its effectiveness for treating SUD and chronic pain is still limited, and more research is needed to understand its impact on patient outcomes and health care delivery (Duff et al., 2023a; Duff et al., 2023b; Duff et al., 2022). Building a strong evidence base for telehealth services is critical for developing appropriate regulatory and payment policies. By using the best available evidence, policy makers, regulators, and payers can make informed decisions that benefit patients and health care providers. In addition, developing evidence-based clinical practice guidelines is crucial to guide the adoption and sustainability of telehealth services. Such guidelines can offer clear recommendations on how to use telehealth services effectively, thereby improving patient outcomes and increasing acceptance of the use of telehealth more broadly.

To expand the evidence base for telehealth services, collaboration across health care providers, payers, policy makers, and researchers is essential. It will require the development of standardized measures for evaluating the effectiveness of baseline brick-and-mortar health care services and telehealth services, as well as large-scale, well-designed studies to evaluate the impact of these services on a range of patient populations and clinical settings. To optimize the effectiveness of telehealth modalities, it is important to determine which ones are best suited for different patient populations, clinical conditions, and care settings, and to assess their long-term impact on patient outcomes and quality of care. To ensure coordinated and comprehensive care for all patients, it is essential to address financial, geographic, and language barriers that may hinder access.
Addressing these barriers will enable the appropriate and effective use of telehealth and hybrid care models in clinical practice, thereby providing all patients with the care they require, regardless of their location or socioeconomic status. By breaking down these barriers, the evidence base for telehealth will expand and ultimately improve health care outcomes for all.

**RESEARCH, DATA, AND METRICS NEEDS**

**Priority: Identify and Evaluate Optimal Telehealth Modalities and Standards for SUD and Chronic Pain**

- Evaluate the quality, cost-effectiveness, accessibility, and patient satisfaction associated with different telehealth modalities for SUD and chronic pain care, including synchronous and asynchronous communication, remote monitoring, and mobile health applications (Duff et al., 2023b).
- Evaluate the effectiveness of telehealth in the delivery of non-pharmacological interventions, such as psychotherapies and physical therapies, as well as supportive interventions (Corso et al., 2022).
- Explore the potential for telehealth interventions to improve the coordination of care among multiple providers involved in the treatment of SUD and chronic pain, including primary care physicians, addiction specialists, pain management specialists, and mental health providers (Duff et al., 2023a).
- Develop and validate standardized criteria to guide the selection of virtual versus in-person modalities for SUD and chronic pain care, considering factors such as patient needs, clinical context, and available resources (Waller et al., 2021).
- Investigate the effectiveness of hybrid care models that integrate virtual and in-person modalities in SUD and chronic pain care (Duff et al., 2023b).
- Conduct comprehensive cost-effectiveness analyses to assess the potential benefits and costs of telehealth and hybrid care interventions for managing SUDs and chronic pain, including the costs associated with technology and staff training and the potential savings from reduced hospitalizations, emergency department visits, and other health care utilization (Duff et al., 2023a; Snoswell et al., 2020).
**Priority: Assess and Address Disparities in Access to Telehealth-Enabled Pain and SUD Care**

- Conduct comprehensive analyses of the factors that contribute to disparities in access to telehealth-delivered pain and SUD care, including SDOH and systemic barriers like the digital divide, to develop targeted solutions for underserved populations such as older adults, racial and ethnic minorities, low-income individuals, rural/frontier and tribal communities, people with disabilities, and other specific groups (Duff et al., 2023a).
- Evaluate the effectiveness of telehealth and hybrid care models in increasing access to quality pain and SUD care, improving treatment adherence, and enhancing patient satisfaction (Duff et al., 2023a).
- Evaluate the impact of telehealth on health equity and disparities in SUD and chronic pain care by examining the differential effects of telehealth interventions across various sociodemographic groups, including age, race, ethnicity, socioeconomic status, and geographic location (Duff et al., 2023b).
- Explore how telehealth interventions can be tailored to address the unique needs and preferences of different patient populations, including individuals with limited English proficiency, low health literacy, and disabilities (Duff et al., 2023a; Duff et al., 2023b; SAHMSA, 2021b).
- Explore the impact of policy changes (e.g., changes in reimbursement, licensure, or regulation) on access to telehealth-enabled pain and SUD care for underserved populations and identify strategies to promote equity in telehealth access (Duff et al., 2023a; Oesterle et al., 2020).

**Priority: Establish Evidence-Based Quality Benchmarks and Outcome Measures for Telehealth and Hybrid Care**

- Develop evidence-based quality benchmarks and metrics for brick-and-mortar, telehealth, and hybrid care for the management of chronic pain and SUD by conducting research to identify key performance indicators, best practices, and desired outcomes that reflect high-quality care across all modes of care delivery (Duff et al., 2023b; SAMHSA, 2021c).
- Identify optimal methods for collecting, analyzing, and reporting quality metrics to facilitate comparisons between different care modalities and inform quality improvement initiatives in the management of telehealth-enabled and hybrid chronic pain and SUD care (SAMHSA, 2021c). Potential areas of focus should include the use of patient-reported outcomes, clinical measures, and administrative data.
Establish standardized and validated outcome measures for brick-and-mortar and telehealth interventions in SUD and chronic pain care to facilitate the comparison of results and improve understanding of the effectiveness of telehealth interventions (SAMHSA, 2021c; Oesterle et al., 2020).

Establish guidelines for the consistent use of standardized, validated, and reliable outcome measures in research for SUD and chronic pain care to promote methodological rigor and enable more robust meta-analyses and systematic reviews (SAMHSA, 2021c; Oesterle et al., 2020).

Develop and validate patient-reported outcome measures (PROMs) that accurately capture the unique experiences and perspectives of individuals with SUD and chronic pain receiving telehealth-enabled care, including the impact of telehealth on their quality of life, functioning, and satisfaction with care (Young et al., 2022). Potential areas of focus should include evaluating the reliability and validity of existing PROMs for telehealth-enabled care, developing new PROMs that capture specific outcomes of interest, and exploring the use of digital health technologies to facilitate the collection and analysis of PROM data.

Explore the optimal frequency and timing of outcome assessments in telehealth-enabled SUD and chronic pain care by leveraging digital health technologies and patient-generated health data to collect real-time data and provide feedback to inform treatment decisions, monitor progress, and adapt treatment plans as needed (Glaser et al., 2022; Tiase et al., 2020).

**Priority: Improve Telehealth Integration and Implementation in SUD and Chronic Pain Management**

Expand research beyond the efficacy of telehealth-enabled care to encompass considerations related to implementation and evaluation, including strategies for promoting provider and patient adoption, development of necessary technological infrastructure, and methods for ongoing quality improvement of telehealth-enabled SUD and chronic pain care (SAMHSA, 2021c).

Identify the key drivers and barriers to the adoption of telehealth interventions in different health care settings, including provider and patient attitudes, organizational culture, technological infrastructure, regulatory burdens, and reimbursement policies (Duff et al., 2023b).

Develop and evaluate implementation strategies and best practices for telehealth adoption in diverse settings, including considerations for workforce training, patient engagement, and quality improvement (Appleton et al., 2023).
Develop and evaluate effective strategies for training and supporting health care providers in the delivery of telehealth-enabled SUD and chronic pain care, including the identification of provider competency needs and preferences; development of best practices for telehealth care delivery; and assessment of the impact of training on provider confidence, engagement, and patient outcomes (Tauben et al., 2020).

Develop and evaluate models for integrating telehealth into existing health care systems and workflows for SUD and chronic pain care, with a focus on identifying and addressing barriers and facilitators to successful implementation (Duff et al., 2023b).

Explore the potential benefits and limitations of integrating telehealth into collaborative care models, such as those for managing comorbid mental health issues and SUDs, and evaluate the impact of telehealth on communication, coordination, and patient outcomes within multidisciplinary care teams (Davidson et al., 2020). Potential areas of focus should include issues related to workflow, team dynamics, and the use of decision support tools and data exchange platforms to facilitate collaborative care.

Develop and evaluate user-friendly interfaces and strategies that integrate data across virtual and in-person care to promote collaboration, enhance patient experience, and improve the integration of care across settings (Duff et al., 2023b).

Investigate the impact of telehealth on clinical decision-making and treatment outcomes in SUD and chronic pain care, with a focus on identifying the most effective ways to integrate decision support tools and algorithms into telehealth-enabled care (Kuziemsky et al., 2019). Potential areas of focus should include evaluating the impact of these tools on patient outcomes and satisfaction, as well as provider satisfaction and adherence to treatment guidelines.

Investigate the potential of community-based organizations, social workers, care coordinators, and peer support networks to augment the delivery of telehealth-enabled SUD and chronic pain care, including their role in addressing SDOH and reducing barriers to care (Duff et al. 2023a).
**ABOUT THE ACTION COLLABORATIVE**

The National Academy of Medicine’s Action Collaborative on Countering the U.S. Opioid Epidemic (the Action Collaborative) is a public-private partnership composed of more than 70 organizations representing federal, state, and local governments; health systems; associations and provider groups; health education and accrediting institutions; pharmacies; payers; industry; nonprofits; and academia. The Action Collaborative is committed to developing, curating, and disseminating multi-sector solutions designed to reduce opioid misuse and improve outcomes for individuals, families, and communities affected by the opioid crisis. Learn more about the Action Collaborative at nam.edu/opioidcollaborative.

**ACKNOWLEDGEMENTS**

This research agenda, developed on behalf of the Collaborative, benefited greatly from the guidance of the Phase II (2021–2022) Research, Data, and Metrics Needs Working Group, whose members include Carlos Blanco, MD, PhD, National Institute on Drug Abuse; Kelly J. Clark, MD, MBA, Addiction Crisis Solutions; Rebecca Baker, PhD, National Institutes of Health; Richard Bonnie, LLB, University of Virginia; Kathy Chappell, PhD, RN, FNAP, FAAN, American Nurses Credentialing Center; Humayun “Hank” J. Chaudhry, DO, MS, MACP, Federation of State Medical Boards; Jianguo Cheng, MD, PhD, Cleveland Clinic; Lisa Hines, PharmD, Pharmacy Quality Alliance; Christopher M. Jones, PharmD, MPH, U.S. Centers for Disease Control and Prevention; Kevin Larsen, MD, FACP, Optum; Bertha K. Madras, PhD, McLean Hospital and Harvard Medical School; Edward Mariano, MD, MS, Stanford University; Ray Mitchell, MD, MBA, Liaison Committee on Medical Education; Robert “Chuck” Rich, Jr., MD, FAAFP, American Academy of Family Physicians; Friedhelm Sandbrink, MD, U.S. Department of Veterans Affairs; and Steve Singer, PhD, Accreditation Council for Continuing Medical Education.

Please note this is an excerpt from the full research agenda. The research agenda and complete list of references can be found here: www.nam.edu/opioid-collaborative-agenda

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