U.S. Department of Health & Human Services
National Institutes of Health

National Center for Complementary and Integrative Health

Research on Whole Person Health Stakeholder Meeting

October 17–18, 2022

Executive Summary

On October 17–18, 2022, NCCIH held a stakeholder meeting to discuss gaps and opportunities in research on whole person health and what is needed to implement whole person health in the real world from a variety of perspectives. Representatives of health professional, integrative health, patient advocacy, research, and government organizations participated.

In her opening address, Dr. Langevin proposed that whole person health could be a unifying concept for the complementary and integrative health field. NCCIH defines whole person health as empowering individuals, families, communities, and populations to improve their health in multiple, interconnected domains: biological, behavioral, social, and environmental. The whole person health concept emphasizes self-care and use of psychological, nutritional, and physical interventions to promote and restore health. This approach is consistent with many complementary and integrative therapies' focus on engaging the patient's resources to foster a return to health rather than just treating symptoms.

Research on whole person health is challenging but possible, Dr. Langevin said. In September 2021, the National Institutes of Health (NIH) held a very successful 2-day workshop on methodological approaches for whole person research. The workshop participants discussed ways to study interconnected, interacting systems; the impacts of interventions on multiple systems; and the impacts of multicomponent interventions. Gaining an understanding of whole person health will require adapting existing research strategies as well as developing new research methods.

Artificial intelligence, which greatly increases the power to analyze complex datasets, can play a role in whole person health research. NCCIH is one of the lead Institutes and Centers for NIH's Bridge to Artificial Intelligence (Bridge2AI) program, and one of the grand challenges being tackled by that program focuses on health restoration, also called salutogenesis. Artificial intelligence may make it possible to represent the entire metabolic network of a person who might be less than optimally healthy and study the process by which this individual might achieve or return to better health.

Another component of research is developing a consistent set of measures of whole person health so that different studies and research groups can talk to one another in the same terms. With help from experts and community input through a request for information, NCCIH has developed a framework for whole person health that is intended

to have enough factors to capture the whole person but not so many as to be unmanageable. Social, environmental, and behavioral determinants of health are included, along with biological aspects of health, such as genetics and metabolic markers. The individual person, including what matters to that individual and how the person feels about their health, is central to the framework. The framework also includes the bidirectional continuum of health, where an individual can move from health to disease and, under the right circumstances, back toward health. Other groups, for example in the U.S. Department of Defense (DOD) and U.S. Department of Veterans Affairs (VA), have developed similar frameworks, but theirs are oriented more toward patient care, while NCCIH's framework is oriented toward research. Nevertheless, there are many similarities in the frameworks, with much agreement in the number and types of categories represented. The concept of whole person health is growing rapidly. Many organizations, including universities and health systems, are adopting this perspective.

Dr. Langevin explained that the goal of this meeting is to hear from stakeholders about the kinds of research needed to develop a better understanding of whole person health. To achieve this goal, two groups of breakout sessions were held, one on gaps and opportunities in different areas of research, and one on what is needed to implement whole person health in real-world settings.

In the **Clinical Trials/Clinical Research** breakout group**,** participants expressed an interest in more descriptive and practice-based research networks to understand models of practice that provide whole person health care. Because randomized controlled trials may not be the best method of studying whole person health care, there was interest in N-of-1 designs, multiphase optimization strategy designs, and other adaptive study designs. Work is needed to develop multicomponent interventions to resolve the tension between tailoring to the individual and standardization. There is a great interest in common outcomes to use across research for whole person health. Global measures that account for context are needed to foster comparisons across trials and outcomes.

Discussion in the **Basic Research** breakout group focused on defining "health" and "being well" at the macro or societal level as well as on the micro or molecular scale and how to measure these concepts. The group differentiated the concept of healing, which is considered as coming from self-identity, and curing, which is thought to be coming from the practitioner's perspective. The group discussed the need for both analytic (bottom-up) and synthetic (top-down) approaches to basic research, and cautioned that there are challenges with multiple outcome analysis, which is perceived as unfocused and overly ambitious. Global issues discussed included challenges around the general acceptance of the whole person health concept, the need for research networks to connect different disciplines, and the need for suitable funding mechanisms for whole person health research.

Participants in the **Implementation Science and Dissemination Research** breakout group recommended viewing whole person health from a lifespan perspective. Themes of their discussion included needs for common language and for funding for health promotion and care coordination, such as for workplace wellness programs. Decision tools should be developed to incorporate care coordination, quality measures, and census information, and to foster shared decision making. Participants recommended leveraging consumer demand in implementation science and dissemination research and considering issues of trust in the current overwhelming information landscape. Another recommendation was to bring the U.S. Food and Drug Administration and government payers such as the Center for Medicare & Medicaid Services into whole person health

research, given that there may be implications for workplace wellness initiatives and reimbursable interventions such as nutrition support.

The **Capacity Building/Training** breakout group discussed challenges for career development and strategies to attract more trainees into the field. Training is needed to help conventional clinicians understand and collaborate with complementary and integrative health practitioners. Participants said that exposure to and collaboration with complementary health practitioners should start in medical school, continue in residency/fellowship, and be part of certification maintenance. Research data in the complementary and integrative health field are needed, but many institutions are not competitive in funding, making it difficult to build the body of literature. In the area of scientific review, the need for increasing complementary and integrative health approach awareness among reviewers was raised as an important focus area.

One of the themes of the breakout group on the perspectives of **individuals, consumers, and educators** was the need to educate practitioners in different specialties around a unifying message for whole person health. Participants recommended that whole person health assessments should consider social determinants such as environmental toxins, ultraprocessed foods, adverse childhood experiences, and lack of access to nature. Equity-focused research must include community stakeholders as part of the collaborative research enterprise to foster trust and engagement as well as to learn from communities which models work best for them. The group suggested that NCCIH should consider a citizen science initiative in whole person health research. Members of the group raised the topic of failure to act upon successful interventions, along with the question of what research is needed to drive investment when evidence already exists.

Participants in the breakout group on perspectives of **clinicians, practitioners, and community health workers** noted that there is a need for brief, validated, and free data collection and measurement tools that can be used across all levels and specialties of clinical practice. These tools can facilitate standardized data collection that enables small datasets to be combined. In this way, data collected from complementary and integrative health practitioners with small practices can be combined with data from other practitioners for larger analyses. Participants suggested creating a multidomain “whole person index,” where various domains may be more applicable to some specialties than others. Having such an index would provide a more comprehensive picture of each person; it could also help move the dial regarding population health changes. The person-centered measures developed by the Patient-Reported Outcomes Measurement Information System (PROMIS) could help in the creation of this index. The group emphasized that funding and time are also key resources, including time to conduct whole person health assessments with patients and to process and analyze the data.

The breakout group on perspectives of **policymakers** discussed the threshold of evidence needed to make a policy change. It is not clear how much evidence is needed to make policy and whether NCCIH can push the whole person health agenda within NIH, whether external stakeholders need to address this issue, or both. The group also discussed how to provide implementation guidance or a roadmap to policymakers to implement and operationalize policy change when sufficient evidence already exists. Other recommendations included increasing resources for implementation science, identifying best practice models, removing barriers that prevent integrative providers from being a core part of the health care team, and supporting existing structures such as practice-based research networks and data sources such as electronic health records.

The breakout group on perspectives of **insurers** discussed the need for other research analyses beyond efficacy, such as economic analyses to inform cost effectiveness and return on investment and secondary analyses by insurance status. The group discussed examples of demonstration projects done in different fields and disciplines and said more such projects are needed to provide data on the effectiveness of whole person health approaches. They recommended outreach to actuaries and the creation of an actuarial model for whole person health. The group suggested that Dr. Langevin could present whole person health to a national insurer meeting. They also recommended raising awareness among employers and employees who may not understand that they can influence insurers to cover whole person health.

During the breakout session on the perspectives of **researchers**, participants pointed out that finding data and whole person health models to study is a challenge, and demonstration projects are needed. There is also a need to take research findings from academic settings to see whether and how they are valid in real world settings—in rural areas, for example. The group also discussed the need for new measures and methods for studying clusters of outcomes to capture dimensions of relevance for the whole person as well as a measure for whole person health in its entirety. Flexible study designs and complex adaptive systems that incorporate complexity science and adaptive design are needed. Collaborations should be diverse and include individuals with lived experience. Members of the group also said that funding mechanisms and study sections specifically focused on whole person health are essential.

Members of the breakout group on the perspectives of **businesses, innovators, and entrepreneurs** suggested that NIH could help outside of its existing small business mechanisms by building bridges between high-throughput centers and small businesses. Regarding data collection, the group asked how to build resources for entrepreneurs to connect with researchers, clinicians, and health care providers to allow small businesses access to data that they could use to test their interventions. NCCIH recently started an initiative called REACH (for REsearch Across Complementary and Integrative Health Institutions) to foster these partnerships. The goal is to help research-intensive academic institutions work more closely with affiliated complementary and integrative health academic institutions to provide the infrastructure that is currently missing. The gap between health care providers and patients/caregivers was also discussed, as was the importance of tracking the outcomes of dietary, exercise, and other lifestyle interventions.

After the breakout groups presented their reports, advocates, clinicians, policymakers, researchers, and others presented a wide variety of public comments. Participants were then polled on these questions: (1) Is whole person health a unifying concept that can successfully coalesce the organizations represented here? (2) Although each organization has its own special interests, does advancing the cause of whole person health rise above the special interests of individual groups? Ninety-five percent of participants answered “yes” to both questions.

Dr. Langevin explained that some Institutes and Centers at NIH have external coalitions—independent, self-organized groups of stakeholders who raise awareness of research needs. One possible outcome of this meeting could be the organization of a coalition for NCCIH. NCCIH cannot coordinate a coalition but could share names of participants and organizations at this meeting and create a liaison with the coalition through its external whole person health working group.

Dr. Langevin reviewed several other ideas that arose during the meeting and may become action items, including forming a group to create a statement of reporting requirements

for whole systems of medicine and creating a whole person index. These ideas are consistent with NCCIH's strategic plan and whole person health framework. Other key topics include policy changes and insurance coverage, the gap between evidence of efficacy and studies of real-world implementation, and the market forces at play in making changes in health care.

In closing, NCCIH leaders thanked the participants for their active engagement and thoughtful comments and expressed confidence that NCCIH and the community can work together to move the whole person health effort forward.