EVIDENCE-INFORMED DECISIONS THAT HELP PATIENTS LIVE LONGER, BETTER OR BOTH

Integrative Primary Care Case Study

Information mastery enables physicians to make decisions by combining useful information that matters to patients with clinical experience. Information mastery on integrative care adds value to the delivery of health care by decreasing overdiagnosis, overtreatment and low-quality care. It provides a focus on key underlying determinants of health in chronic disease. This lowers health care costs.

FEATURED SUBJECT MATTER EXPERT

Allen F. Shaughnessy, PharmD, MMedEd
A nationally recognized expert in evidence-based medicine and its application to primary care through information mastery, Dr. Shaughnessy is the director of the Master Teacher Fellowship and professor and vice chair of Family Medicine for Research at Tufts University School of Medicine.

Dr. Shaughnessy and David C. Slawson, MD, developed the information mastery concept, which is taught in medical and other health professions schools, in workshops for clinicians and via online courses.

DrWayneJonas.com
THE CHALLENGE
Making Informed Decisions in Primary Care

People want to live longer and better. Integrative primary care—the coordinated delivery of evidence-based conventional medical care, complementary medicine and lifestyle medicine within a primary care practice—can help them do this.

Physicians need to be able to easily find useful information to inform their decisions about conventional medical care, complementary medicine and lifestyle medicine. This is more challenging with complementary medicine and lifestyle medicine, where there is less evidence and often less rigorous evidence, than for conventional medicine.

THE JOURNEY
Looking for a Better Way to Use Evidence in Primary Care

Allen F. Shaughnessy, PharmD, MMedEd, has been interested in the idea of evidence-based medicine since it first appeared in the 1980s. But Dr. Shaughnessy realized that the focus of evidence-based medicine wasn’t quite right. “It was too academic, and focused on the research and not on what concerns most primary care physicians: how to make the best decisions for patients,” he says. Dr. Shaughnessy is the director of the Master Teacher Fellowship and professor and vice chair of Family Medicine for Research at Tufts University School of Medicine.

From Evidence-Based Medicine to Information Mastery

In 1992, Dr. Shaughnessy met a like-minded medical educator, David C. Slawson, MD, when they were both training residents at Pennsylvania State University's Milton S. Hershey Medical School. Dr. Slawson is currently professor of Family Medicine at the University of North Carolina Chapel Hill.

Dr. Shaughnessy and Dr. Slawson began exploring ways to help primary care physicians make evidence-informed, rather than evidence-based, decisions in their day-to-day practice. “There was a huge disconnect between doctors’ practices and what the research literature was saying,” says Dr. Shaughnessy.

“It’s a myth that any primary care doctor can keep up with the literature. There had to be a way to sort through information and decide if this information is valid and will be relevant to your practice.”

—Dr. Shaughnessy
Their first idea was that "not all information in medicine is created equal," that is, approaches to determining research validity did not make the information relevant to everyday primary care practice. Dr. Shaughnessy and Dr. Slawson began to focus on what's most relevant to patients: living longer and better. They also wanted to improve physician confidence by making the right information more easily available, and helping physicians use that information to make patient-oriented decisions.

About Allen F. Shaughnessy, PharmD, MMedEd

Dr. Shaughnessy is the director of the Master Teacher Fellowship and professor and vice chair of Family Medicine for Research at Tufts University School of Medicine. He and David Slawson, MD, developed the concept of information mastery and the information mastery curriculum at Tufts University School of Medicine, along with workshops and other courses.

Over 34 years as a medical educator, Dr. Shaughnessy has focused primarily on training residents and the faculty who train residents. He teaches a course in evidence-based medicine to medical and physician assistant students at Tufts University School of Medicine. Dr. Shaughnessy has published more than 150 articles on information mastery, evidence-based medicine, continuing medical education, family practice education and other topics in journals such as the Journal of Family Practice, JAMA, British Medical Journal and American Family Physician.

Dr. Shaughnessy’s awards include the This We Believe Award and the Lifetime Faculty Achievement from the Family Medicine Education Consortium and The Innovative Program Award from the Society of Teachers of Family Medicine.

THE SOLUTION

Applying Evidence that Matters to Patients in Primary Care

Building on the principles of evidence-based medicine and making them more applicable to primary care, Dr. Shaughnessy and Dr. Slawson developed the concept of information mastery in 1994.

"Information mastery is a set of ideas that focus more on decision-making by physicians," says Dr. Shaughnessy. "It emphasizes not only using the best evidence but also making decisions based on information that shows a direct link between a medical practice and a patient living longer, better, or both."
Key Definitions

Evidence-Based Medicine
“Evidence-based medicine is the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients.”
» Centre for Evidence-Based Medicine, Nuffield Department of Primary Care Health Sciences, University of Oxford

Information Mastery
“Information mastery is the application of the principles of evidence-based medicine concepts and techniques to the day-to-day practice of medical care.”
» Center for Information Mastery, Tufts University School of Medicine

Benefits of Information Mastery for Patients, Payers and Providers

Dr. Shaughnessy also notes that evidence-based medicine doesn't always allow physicians to relieve or prevent suffering, which is the primary goal of medical care.

“Basing medical decisions only on evidence may not always be the best way to ease suffering and provide hope,” he says. Unproven interventions that are known not to cause harm and engage a patient in his or her wellbeing and self-care can be used to provide hope and enhance healing.

Benefits of Information Mastery

Patients
- Relieves and prevents suffering
- Provides hope and self-care engagement

Payers
- Decreases overdiagnosis, overtreatment and low-quality care
- Lowers health care costs

Providers
- Provides more tools to help patients
- Facilitates patient-centered care and improves quality of care
Information mastery on integrative care adds value to the delivery of health care by decreasing overdiagnosis, overtreatment and low-quality care, according to Dr. Shaughnessy. It provides a focus on key underlying determinants of health in chronic disease. This lowers health care costs.

Using complementary or lifestyle approaches, or doing nothing, prevent exposing patients to the risks of overtreatment or treatments with more adverse effects. This also lowers costs because complementary medicine and lifestyle medicine are less expensive than many conventional medical treatments.

Using complementary medicine and lifestyle medicine gives physicians more tools to help their patients, who often want to use these approaches. “This allows physicians to be more aligned with patients’ values,” says Dr. Shaughnessy. “Patients sometimes value integrative health approaches over other approaches.” Applying information mastery tools to complementary and integrative health ensures that the application of those approaches is appropriately informed by evidence.

“*There’s a tradition of doing something in medicine. Sometimes a less aggressive way of doing things, such as complementary medicine, is better.*”

—Dr. Shaughnessy

**Challenges in Implementing Information Mastery**

The main challenge in using information mastery is that it requires a shift in mindset. “Information mastery requires physicians to challenge their way of thinking. That's hard,” says Dr. Shaughnessy.

Another challenge is that integrative medicine isn’t usually taught in medical school or residency programs. Physicians don’t know much about integrative medicine or how to find useful information about these approaches. Complementary and lifestyle medicine are not routine in practice. Adopting them requires change in practice routines.

**4 Concepts of Information Mastery**

The [Center for Information Mastery](http://example.com) at Tufts University School of Medicine describes four concepts of information mastery.

**Concept 1: Patient-Oriented Evidence that Matters (POEM)**

“A POEM is information that helps clinicians to help patients live longer and better. It is direct evidence that a medical intervention, on average, lengthens life, decreases symptoms, and/or improves life quality,” according to the center’s website.

A POEM is different than “disease-oriented evidence,” the focus of most evidence-based medicine. Disease-oriented evidence may not directly show improvement in outcomes that matter to patients.
Concept 2: The Usefulness Equation

“Just as all medical information is not equally important, so too is there a difference between sources of information,” says the center’s website. Useful information is relevant and valid, and does not require undue time, effort and money required to access. The Usefulness Equation is:

\[
\text{Usefulness} = \frac{\text{Relevance} \times \text{Validity}}{\text{Work}}
\]

- **Relevant** information is applicable to one’s practice and is also focused on patient-oriented evidence that matters.
- **Validity** is where evidence-based medicine techniques are helpful. Differences in study design and study conduct influence our comfort in the validity of the results.
- **Work** is the time, energy and money needed to find the needed information. A benchmark for low work is that answers can be found in less than one minute."

(Source: Center for Information Mastery)

Concept 3: Two Tools Are Needed to Become an “Information Master”

The medical information system is a jungle, say Dr. Shaughnessy and Dr. Slawson. Two tools help busy primary care physicians navigate this jungle: a hunting tool and a foraging tool.

- **Tool #1:**
  An information resource to hunt for information at the point of care
  Hunting tools enable physicians to easily and quickly access useful information while taking care of patients. These tools should provide patient-oriented evidence that matters to physicians and their patients. Decision support tools and calculators are examples of hunting tools that reduce work.

  » See The Implementation for details about hunting information resources.

- **Tool #2:**
  A “keeping up” resource that finds and presents new research findings that are both relevant and valid
  “Keeping up” or foraging tools alert physicians to new, relevant and valid information. They filter information for relevance and validity and should provide patient-oriented evidence that matters to physicians and their patients. Many subscription services that summarize medical evidence are available.

  » See The Implementation for details about keeping up resources.

Concept 4: “Clinical Jazz”

Neither clinical experience nor evidence-based medicine alone is sufficient to facilitate appropriate, patient-oriented decision-making. “Clinical jazz” harmonizes clinical experience and evidence-based medicine. It is “a mix of the structure provided by the best available evidence coupled with the clinical experience necessary to understand what each patient needs,” says the center’s website.
Where Information Mastery is Taught

Information mastery is a key theme at the Tufts University School of Medicine. It is also being taught internationally through workshops and online courses.

Dr. Shaughnessy and Dr. Slawson began delivering the information mastery workshop in 1997 at Tufts University, the University of Virginia and hundreds of other universities and settings across the United States and in other countries. The workshop trains faculty in residency training programs so that they can train other faculty members.

Information Mastery at Tufts University School of Medicine

The two medical educators also worked together to develop the information mastery curriculum at Tufts University School of Medicine, implemented in 2015. As a key theme, the concepts and practices of information mastery and evidence-based medicine are incorporated throughout the curriculum, including:

- An evidence-based medicine course taught by Dr. Shaughnessy
- A competency-based apprenticeship in primary care
- An information mastery workshop and presentations during the Family Medicine Clerkship

The Family Medicine Exploration Elective continues information mastery with practical experience in using information at Cambridge Health Alliance.

Information Mastery Online

To increase access to information mastery, Dr. Shaughnessy, Dr. Slawson and two business partners formed Clinical Information Sciences. The company offers online programs for:

- Residencies
- Medical and other professional schools
- Health care institutions
- Clinicians

The Role of Information Mastery in Integrative Primary Care

Information mastery provides one quality of high-value integrative primary care:

- Decision support for evidence-based medicine: Providers use available evidence about complementary and integrative health approaches and lifestyle medicine, along with evidence about conventional care, to guide discussions with patients and care decisions.
High-Value Health Care for Payers
High-value integrative primary care enables providers to respond to incentives that reward high-value health care from Medicare and other payers.

34% LOWER SPENDING

High-value practices compared to average value practices.¹

Qualities of Integrative Primary Care

1. Expanded access to care
2. Integrative health care
3. Standing orders and protocols
4. Upshifted staff roles
5. Careful selection of specialists, including specialists in complementary medicine
6. Decision support for evidence-based medicine
7. Patient engagement in care decisions
8. Comprehensive primary care

Learn more about each quality.

The Evidence Behind Information Mastery

The effectiveness of information mastery in improving physician decision-making is supported by

- Data from a study of the information mastery residency curriculum at Tufts University
- The fact that Tufts University made information mastery a key medical school theme
- Nearly 25 years of experience teaching information mastery by Dr. Shaughnessy and Dr. Slawson

Study of Effect of Information Mastery on Resident's Skills and Attitudes
Dr. Shaughnessy and Dr. Slawson studied the effect of the information mastery curriculum on 23 residents at the Tufts University Family Medicine Residency at Cambridge Health Alliance from July 2005 to June 2010. Residents completed the Fresno Test of Evidence-based Medicine and an attitude questionnaire at the start of the curriculum and again before graduation. Researchers reported results in an article in Family Medicine.²
Results

• Modified Fresno Test scores significantly improved from 104.0 to 121.5:
  » Nine residents (40.1%) passed the test at the start of training.
  » 17 residents (73.4%) passed the test at the end of the intervention.

• Confidence in critical appraisal scores increased from an average 17.90 (95% CI, 16.55–19.25) to 21.10 (95% CI, 19.49–22.71), out of a possible score of 25:
  » Confidence scores were significantly lower in residents who did not pass the posttest (18.5 versus 21.9).

• Confidence in the use of evidence and a decreased reliance on experts improved after the intervention.

The researchers concluded that:

“A curriculum of information mastery, integrated across the greater curriculum, improved trainees’ evidence-based medicine knowledge and skills and attitude toward using evidence to inform clinical decision making.”

THE IMPLEMENTATION
Making Evidence-Informed Decisions that Help Patients

Information mastery in integrative primary care enables physicians to combine evidence-based medicine and clinical experience to make evidence-informed decisions that help patients live longer, better or both. Decisions about appropriate care cover conventional medical care, complementary medicine and lifestyle medicine.

To become an “information master” in integrative primary care, physicians need the same basic information mastery tools used in conventional primary care: 1) resources to hunt for information at the point of care, and 2) a "keeping up" resource for new relevant and valid research findings.

Information Resources to Hunt for Information at the Point of Care

Easy access to useful information helps busy primary care providers answer clinical questions while taking care of patients.
Resources on Complementary Medicine and Integrative Primary Care

*Integrative Medicine*, by David Rakel
4th edition, 2018

Written for physicians and other providers, this evidence-based reference covers botanicals, supplements, mind and body, lifestyle choices, nutrition, exercise, spirituality and more:

- Evidence-based ratings for evidence and the relative potential harm are based on the SORT method (Strength of Recommendation Taxonomy).
- In the ebook, readers can search text, figures, videos and references.

*DrWayneJonas.com*

This website empowers patients and doctors by providing solutions to enhance health, prevent disease and relieve chronic pain. All resources are free. They include pocket guides, Healing Tools summaries, guides and more.

Pocket guides include those on:

- Acupuncture
- Breathwork
- Depression
- Mediterranean diet
- Moving meditations
- Music therapy
- Therapeutic yoga

*Samueli Integrative Health Programs*

This website covers dietary supplements, natural medicines and complementary, alternative and integrative therapies.

The Natural Medicines Brand Evidence-based Rating (NMBER) provides an objective, scientific rating (1–10, with 10 being the highest) for more than 90,000 natural medicines and dietary supplement products. The website features databases and decision support tools. Databases, available for free, include:

- Food, herbs and supplements
- Health and wellness
- Sports medicine
- Comparative effectiveness studies
- Fixed herbal combinations

Decision support tools, available by subscription, include an:

- Effectiveness checker
- Interaction checker
- Adverse event checker

Healing Tools summaries are a collection of evidence-based resources to help providers and patients use integrative health approaches to improve health and wellbeing. Examples:

- Personalized Care Planning for Medically Complex Patients in Primary Care
- Starting the Conversation on Diet
- NIH National Center for Complementary and Integrative Health Clinical Practice Guidelines
**Cochrane Complementary Medicine**

These are free systematic reviews on complementary, alternative and integrative medicine therapies, each with a concise summary, an abstract and a link to the full review. There are 1,293 systematic reviews by type of therapy divided into five subtopics (as of April 2019):

- Alternative medical systems
- Energy therapies
- Manipulative and body-based methods
- Mind and body interventions
- Natural product-based therapies

The “New/Updated” section features the latest reviews and updates to existing reviews. Note that the Cochrane reviews are mostly disease focused and are not selected using the POEMS criteria for information mastery in clinical practice.

Also read the Healing Tools summary about Cochrane Complementary Medicine on DrWayneJonas.com.

**Other Decision Support Tools**

Essential Evidence Plus offers 488 calculators and decision support tools (as of April 2019), available by subscription.

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**Information Resources to Keep Up with New Research Findings**

Medical evidence summary services are the easiest way to keep up with new and useful information. These subscription-based services scan and summarize the literature.

Most services focus primarily on conventional medical care, but also cover complementary medicine and lifestyle medicine. Complementary medicine and lifestyle medicine summary services aren't usually as helpful as conventional medicine summary services. “They tend to be more newsy and don't have a filtering system for validity and relevance that these other groups use,” says Dr. Shaughnessy.
Primary Care Evidence Summary Services

Complementary and Lifestyle Medicine

Natural Medicines
Along with free content on the website, Natural Medicines offers a subscription to an "All-in-one resource" with evidence-based information on 160,000+ natural medicine products and clinical decision support tools.

General Summary Services

Daily POEMs Alerts
Daily POEMs, started by Dr. Shaughnessy and others, identifies "the most valid, relevant research that may change the way you practice." These brief synopses rate the level of evidence and are delivered by email Monday through Friday, as well as in monthly summaries. Each Daily POEM becomes part of Essential Evidence Plus, described below, for easy future reference.

DynaMed Plus
DynaMed Plus provides access to evidence from research from more than 120 journals, tailored to each subscriber’s interests, including primary care. Research staff rate the quality of each article, and then at least three practicing physicians rate the article for clinical relevance and interest. DynaMed includes figures, algorithms and images.

Emailed EvidenceAlerts are free. They link to a searchable database of the best evidence from the medical literature and select evidence-based resources. This service will alert subscribers about integrative medicine research that meets their criteria for relevance and validity.

Essential Evidence Plus
Essential Evidence Plus is an evidence-based, point-of-care clinical decision support system that provides access to more than 13,000 topics, guidelines, abstracts and summaries. Up to three authors write each topic, followed by a review by associate editors and the editor-in-chief. Updates are made by associate editors and the authors. This service will alert subscribers about integrative medicine research that meets their criteria for relevance and validity.

Medscape
Medscape provides comprehensive clinical information and resources for physicians and other health care professionals. Content includes medical news and expert perspectives, point-of-care drug and disease information, professional education and continuing medical education (CME). Medscape has apps for point-of-care decision-making and CME and education.

Complementary and Alternative Medicine is one of the topics members can choose to receive email alerts about when new content is available.

New England Journal of Medicine Journal Watch
Physician editors summarize research, medical news, drug information, public health alerts and guidelines across 12 specialties in a clinically relevant context. Access is available in multiple formats, including email alerts, medical news alerts, audio, blogs and by specialties and topics.
Using Evidence to Inform Decisions on Integrative Primary Care

The evidence base for complementary and integrative medicine isn’t as voluminous or strong as the evidence base for conventional medicine. Physicians can still make good decisions on integrative primary care, according to Dr. Shaughnessy, based upon:

- Available evidence
- Assessing the likelihood of benefit against the risk of harm
- Patient preferences
- The self-healing response

Use available evidence to prioritize complementary and lifestyle treatments, with evidence from randomized controlled trials given the highest priority. Treatments with little or no evidence but a low likelihood of harm are also good options if they fit with patient preferences. “If the patient wants to try an integrative medicine approach over something else, unless they are dangerous or there is an opportunity cost (i.e., failure to use a proven treatment), there’s no harm in doing that,” says Dr. Shaughnessy.

“We have to treat patients based on the best available evidence. We can’t tell patients to come back in five years when we have good research.”

—Dr. Shaughnessy
“When we say things don’t work, we usually mean that they don’t work better than placebo. A lot of times, doing anything helps people, because it marshals that self-healing response.”

—Dr. Shaughnessy

The Self-Healing Response

Sometimes showing care and concern is more important than having evidence about a treatment. “Unproven interventions that engage a person in his/her well-being can provide hope and serve as a gateway to acceptance of other interventions that may have more evidence,” says Dr. Shaughnessy. Showing care and concern and giving patients something to do stimulates the self-healing response (the placebo effect).

There is no need to deceive patients about treatments that do not have evidence. The ritual of treatment often helps even when patients know the treatments are not proven. So, give them the full information (including lack of evidence) about therapeutic choices.

Getting Started in Information Mastery for Integrative Primary Care

Dr. Shaughnessy offers these suggestions for getting started in using information mastery to make decisions about integrative primary care:

1. Read the article *Clinical Jazz: Harmonizing Clinical Experience and Evidence-Based Medicine* (Shaughnessy AF, Slawson DC, Becker L. *Journal of Family Practice*. 1998;47:425-428). This is available for free.
2. Consider taking the online course *Making Decisions Better: The Information Mastery Certification Program*. This course is from Dr. Shaughnessy’s company, Clinical Information Sciences. Modules last 20 to 40 minutes and include short videos, exercises and examples. CME credit is available and clinicians who complete the course receive certification in Evidence-Informed Decision Making.
**THE INTEGRATIVE HEALTH MODEL**

Integrative health is the pursuit of personal health and well-being foremost, while addressing disease as needed with the support of a health team dedicated to all proven approaches—conventional, complementary, and self-care.

Optimal health and well-being arises when we attend to all factors that influence healing, including:

- Medical treatment
- Personal behaviors
- Social and emotional dimensions
- Mental and spiritual factors
- Social, economic, and environmental determinants of health

Integrative medicine is the coordinated delivery of evidence-based conventional medical care, complementary medicine, and lifestyle medicine for producing optimal health and well-being.

Integrative primary care is the coordinated delivery of evidence-based conventional medical care, complementary medicine, and lifestyle medicine within a primary care practice.

Lifestyle medicine incorporates healthy, evidence-based self-care and behavioral approaches into conventional medical practice to enhance health and healing.

Integrative health redefines the relationship between the practitioner and patient by focusing on the whole person and the whole community. It is informed by scientific evidence and makes use of all appropriate preventive, therapeutic, and palliative approaches, health care professionals, and disciplines to promote optimal health and well-being. This includes the coordination of conventional medicine, complementary/alternative medicine, and lifestyle/self-care.
Evidence-Informed Decisions that Help Patients Live Longer, Better or Both: Integrative Primary Care Case Study

Improve Care Quality and Patient Outcomes and Satisfaction

Incorporating integrative medicine into mainstream primary care practices enables physicians and other health care providers to:

- Deliver higher quality care
- Improve patient outcomes and satisfaction\(^3\)
- Lower costs
- Reduce burnout

Balance Healing and Curing in Chronic Diseases

As currently practiced, modern medicine, which is so powerful in treating acute disease, is missing nearly 80 percent of what contributes to healing for chronic disease. Even optimal medical treatment contributes only 15 to 20 percent to the health of a population.\(^4\)

The rest comes from:

- Lifestyle and behavior
- Environment
- Social determinants of health\(^4\)

Integrative health balances healing and curing. It goes beyond treating disease to helping patients thrive by tapping into their inherent healing capacity.\(^4\)

Guide Patients on their Healing Journey

Integrative health starts with the physician or other primary care provider listening to the patient to understand his/her needs and values. Providers then match the patient’s goals with good practices to promote healing and improve health and well-being.

Ways to Guide Patients

- Promote lifestyle, behavioral, and self-care changes
- Promote proven conventional practices and proven complementary practices
- Protect patients from dangerous, disproven, or toxic practices
- Permit practices that may work and have no harmful side effects
- Partner with patients. Be willing to research and discuss the evidence for conventional, complementary, and self-care.
THE RESOURCES

Resources About Information Mastery and Integrative Primary Care
- **Center for Information Mastery**, Tufts University School of Medicine, including:
  » Concepts of Information Mastery
  » Core Readings and Additional Resources
- **Clinical Jazz: Harmonizing Clinical Experience and Evidence-Based Medicine** (Shaughnessy AF, Slawson DC, Becker L. *Journal of Family Practice*. 1998;47:425-428).
- **Making Decisions Better: The Information Mastery Certification Program**, an online course by Clinical Information Sciences. CME credit is available and clinicians who complete the course receive certification in Evidence-Informed Decision Making.
- **Understanding the Value of the Placebo Effect**, DrWayneJonas.com.

Resources About Other Qualities of Integrative Primary Care
- **A Return to the Craft of Healing with Patient-Centered Team-Based Care: Integrative Primary Care Case Study**
- **Chronic Disease Management with Group Visits: Integrative Primary Care Case Study**
- **Helping Patients with Chronic Diseases and Conditions Heal with the HOPE Note: Integrative Primary Care Case Study**
- **Empowering Patients with Chronic Diseases to Live Healthier through Health Coaching: Integrative Primary Care Case Study**

Resources About Integrative Primary Care
- **What is Integrative Primary Care?** DrWayneJonas.com.
- Best Practices in Integrative Primary Care: White Paper

THE REFERENCES

ABOUT THE AUTHOR – DR. WAYNE JONAS

Dr. Jonas is a practicing family physician, an expert in integrative health and health care delivery, and a widely published scientific investigator. Dr. Jonas is the Executive Director of Samueli Integrative Health Programs, an effort supported by Henry and Susan Samueli to increase awareness and access to integrative health. Additionally, Dr. Jonas is a retired lieutenant colonel in the Medical Corps of the United States Army. From 2001-2016, he was president and chief executive officer of Samueli Institute, a nonprofit medical research organization supporting the scientific investigation of healing processes in the areas of stress, pain, and resilience.

Dr. Jonas was the director of the Office of Alternative Medicine at the National Institutes of Health (NIH) from 1995-1999, and prior to that served as the Director of the Medical Research Fellowship at the Walter Reed Army Institute of Research. He is a Fellow of the American Academy of Family Physicians.

His research has appeared in peer-reviewed journals such as the Journal of the American Medical Association, Nature Medicine, Journal of Family Practice, Annals of Internal Medicine, and The Lancet. Dr. Jonas received the 2015 Pioneer Award from the Integrative Healthcare Symposium, the 2007 America’s Top Family Doctors Award, the 2003 Pioneer Award from the American Holistic Medical Association, the 2002 Physician Recognition Award of the American Medical Association, and the 2002 Meritorious Activity Prize from the International Society of Life Information Science in Chiba, Japan.

To access more information on integrative health, including tools and resources for patients and providers, visit DrWayneJonas.com