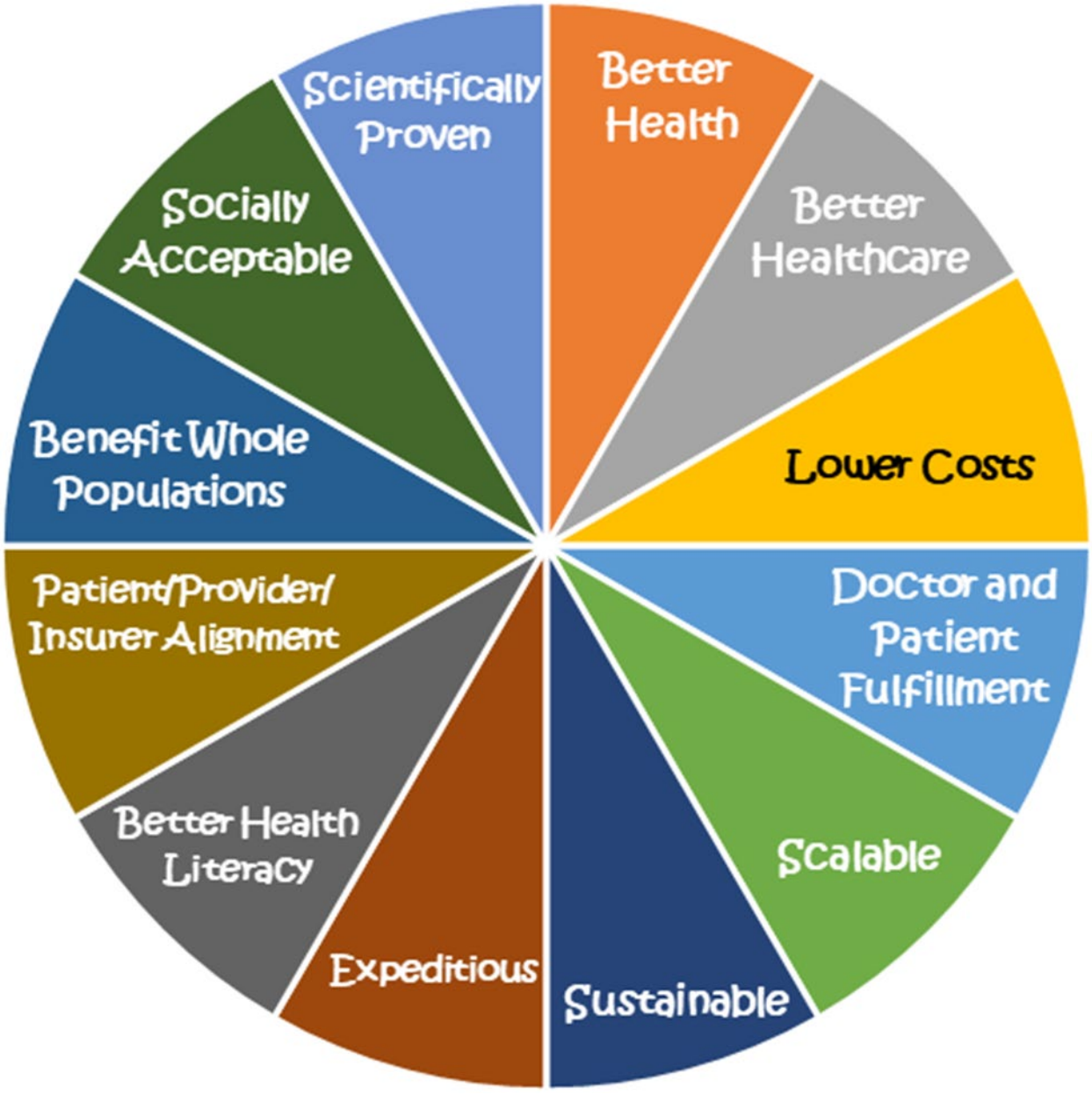
Solving America's Health, Healthcare, and Cost Crises

How to Make Value-Based Care Work

By Susan Chambers, M.D., and Jeff Greene



The Twelve-Part Aim

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By Susan Chambers, M.D., and Jeff Greene
May 2021

Preview

The intent of this white paper is to:

1. Highlight the urgent need to adopt value-based care to solve America's health, healthcare, and cost crises.
2. Explain why medical providers resist adopting value-based care.
3. Present an innovation that has been proven to solve the health, healthcare, and cost crises, and can lower provider resistance to value-based care.
4. Call decision-makers to action.

One of the most vexing challenges of our time is how to provide quality healthcare to all Americans, without bankrupting our economy in the process. The magnitude and complexity of this challenge have, thus far, prevented any comprehensive solution.

In this paper, we offer just such a solution. It is called the Mutual Accountability and Information Therapy or MAIT Program. And although this claim may seem a bit of a stretch, we will explain the science behind how and why MAIT works, and discuss why all other attempts have fallen short. We will provide peer-reviewed and validated proof of MAIT's effectiveness at achieving the coveted *Quadruple Aim* and the even more challenging *Twelve-Part Aim*. We will also examine how MAIT relates to important topics such as health literacy, patient-doctor-insurer alignment, patient engagement/empowerment/accountability/activation, behavioral (mental) and emotional health, health equity, social determinants of health, and telehealth.

While this paper is primarily intended for health insurers of all types, public and private, it is written such that a layperson can understand the issues and the solution. We trust it will inspire action, if not a revolution.

The Challenge

To varying degrees, societies around the world struggle with issues of poor public health, inefficient healthcare, provider burnout, and escalating healthcare costs. In America, these issues have reached crisis proportions, with experts warning that the trillions in added debt, caused by the COVID-19 pandemic, threaten the country's economic and political viability.

For decades, experts have attempted numerous approaches to solve these health, healthcare, and cost crises, which we will simply refer to as "*the Crises*." But nothing has worked.

The Crises represent a complex set of issues that stymie reform. Experts agree, however, that the method by which medical providers are paid, is a fundamental problem that must be solved.

Studies confirm that the most prevalent method of provider reimbursement—fee-for-service—incents providers, including hospitals and physicians, to engage in supplier-induced demand (SID), an economic condition in which providers use their licensure and superior knowledge, and patients' dependency, to encourage patients to demand more services, or to unilaterally provide more services without the patient's full

awareness.[1,2] Whether SID occurs with good intentions or not, it enriches providers, while driving up the cost of healthcare for the rest of us.

An alternative to fee-for-service is capitation or the "payment per patient per time period" method of provider compensation. While capitation eliminates SID, it assigns a level of financial risk to providers that incents either cherry-picking healthy patients or rationing care.[3,4]

Paying physicians a salary is a third alternative. It, too, can limit SID, but it may cause some providers to do "just enough," which can negatively impact productivity and care quality.

There are numerous hybrids of these three models that intend to incent physician performance one way or another. However, practitioners are frequently unenthusiastic about the administrative burdens and treatment restrictions these top-down types of alternative payment methods (APMs) tend to impose.[5]

So, how can the provider payment issue be resolved? The answer is the MAIT Program.

A Brief Description

The MAIT Program is a web-based service (software-as-a-service or "SaaS") that employs a system of psychosocial motivators, designed to align the interests of healthcare consumers, providers, and insurers, by promoting "*mutual accountability*" to improve health and control costs. The Program is noted for employing something called "*information therapy*" to address the harmful effects of inadequate health literacy.[6,7,8,9,10] MAIT is unlike any other solution, a fact attested to by one Canadian and three U.S. patents.[11,12,13,14]

The Program's customers are any entity that underwrites the cost of health coverage, to include governments, Medicare, Medicare Advantage, Medicaid, commercial insurers, self-insured employers, and health providers who sponsor risk-bearing HMOs, ACOs (accountable care organizations), or value-based care initiatives. Collectively, we will refer to these entities as "*the insurers*," which, for the purposes of this paper, are synonymous with healthcare purchasers and payors.

Operationally, MAIT works by offering *insurer*-sponsored financial incentives to both doctors and patients, for holding each other accountable for accessing the Program's website. to complete an *information therapy* session, after each office visit.

It is notable that MAIT falls into the category of digital health (i.e., virtual health, telehealth, telemedicine), one of the hottest fields in both medicine and business.

The Proof

Unlike essentially all other failed attempts to solve *the Crises*, MAIT has been subjected to more than a decade of testing in real-world settings, and scrutinized by independent experts.[15,16,17,18]

The results speak for themselves.[19]

According to the independent certifying organization, Validation Institute, the MAIT Program is *the first and only* innovation to have peer-reviewed and validated proof of achieving the coveted *Quadruple Aim* (i.e., *better health, better healthcare, utilization control and cost savings, and patient/physician fulfillment*), in a full and normally distributed population.

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This achievement is considered the "*holy grail*" of health reform. And there is more.

The Validation Institute's leadership is so confident in their appraisal and the capabilities of our program, they have taken the unprecedented step of financially guaranteeing MedEncentive customers that the MAIT Program will achieve the *Quadruple Aim*.

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The MAIT Program is also the first cost-containment solution to receive special discounts from medical reinsurers/stop-loss carriers, like Sun Life.[20] This means that self-insured employers that adopt our program can receive a significant discount on their stop-loss coverage, plus a financial guarantee from a third-party certifying agency.

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Proof of MAIT's efficacy was published in the peer-reviewed *Journal of Medical Internet Research*. This study (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6823604/) found that the Program was associated with double-digit reductions in hospitalizations, emergency room visits, and per capita costs, which produced net savings and a return on investment many times the cost of the Program.

Al Lewis, Harvard attorney and economist, author of the bestseller text *Why Nobody Believes the Numbers in Population Health Management*, and the industry's leading critic, said the following about MAIT:

"No one was more skeptical than I. Therefore, we [Validation Institute] subjected the MedEncentive [MAIT] Program to every plausibility test in the book, and then some, and it produced compelling statistics in response."

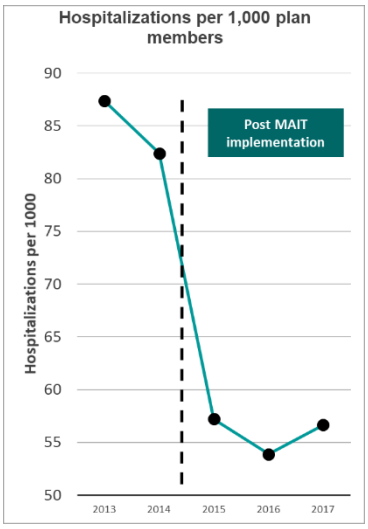
The MAIT Program is one of the few innovations in the field of healthcare cost containment that actively seeks the scrutiny of transparent testing. In fact, at this writing, the Program is in the midst of a randomized control trial with a commercial health insurer.

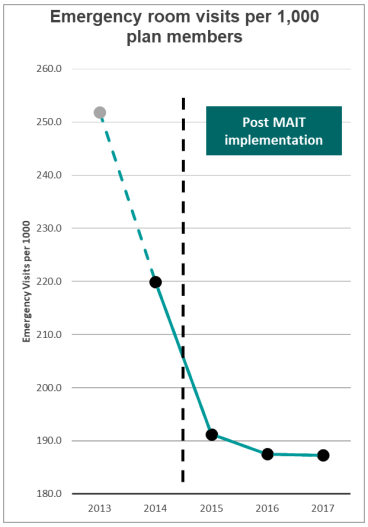
MAIT has accomplished these distinctions, in part, by providing the greatest good to the greatest number of people. This is different from the majority of health reform initiatives, which focus on individual hotspots, such as the disadvantaged, or those with specific disease conditions (e.g., diabetes, mental health). While these are noble endeavors that need to be pursued, they are not designed to, nor will they ever achieve, the *Quadruple Aim*.

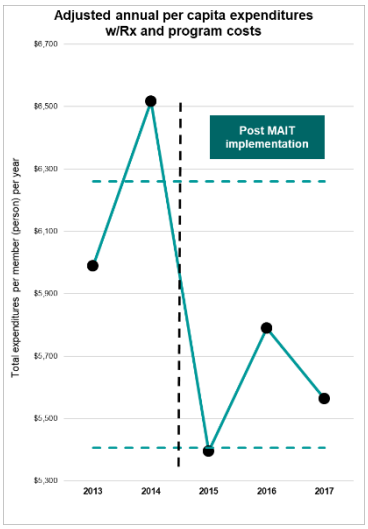
It is this "greatest good" design feature that propels MAIT past what we believe is the acid test in population health, and explains why we add the distinguisher "in a full and normally distributed population," to the *Quadruple Aim*.

The Proof Infographic *

Mutual Accountability and Information Therapy (MAIT) Program







Hospitalizations per 1000 declined**

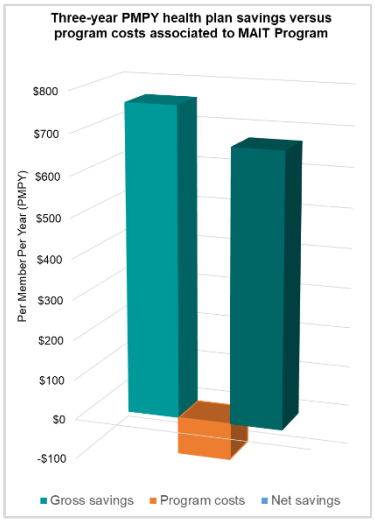
32%

ER Visits per 1000 declined**

14%

Annual Costs per capita declined+**

11%



Return on Investment

7.5 to 1

Patient Success (Participation) Rate
Based on Total Office Visits

74%

Physician Success (Participation) Rate
Based on Total Office Visits

45%

Qualitative patient and physician survey scores corroborate health-improvement and cost-savings outcomes

* Reduced Hospitalizations, Emergency Room Visits, and Costs Associated with a Web- Based Health Literacy, Aligned-Incentive Intervention: Mixed Methods Study. *Journal of Medical Internet Research*. 2019;21(10):e14772. A mixed-methods, single within-group, pre-post, descriptive study design, using pre-post mean utilization and cost differences to summarize data applying descriptive statistics. Qualitative analysis employed open-ended electronic survey items to collect descriptive data and analyzed them using thematic content analysis.

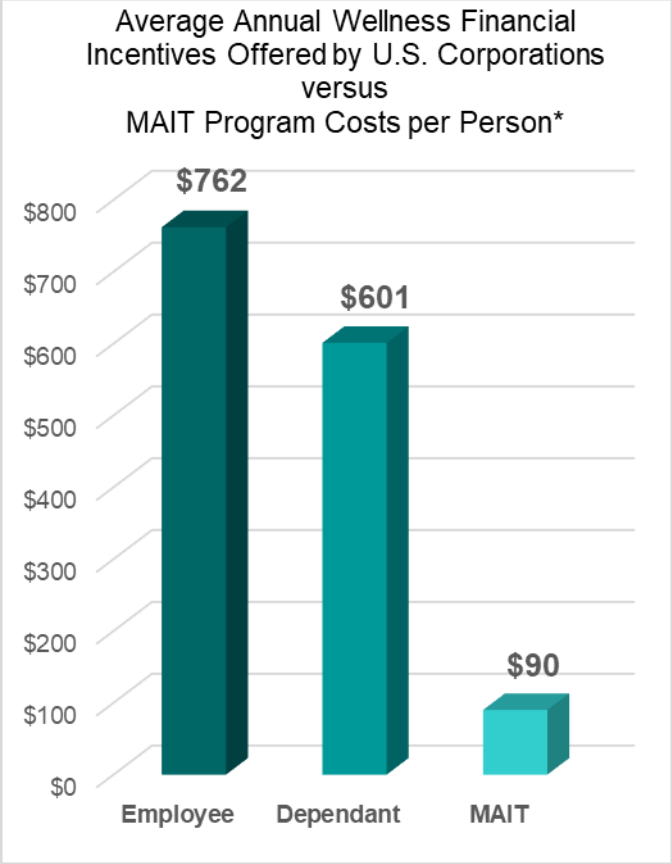
** No self-selection bias—all participants and non-participants, pre and post, included.

t Costs adjusted to baseline pricing for equivalent pre and post comparison

According to the Business Group on Health, U.S. Corporations

spend 6 to 8 times more

on wellness incentives, alone, compared to the full cost of the MAIT Program, inclusive of physician compensation, patient rewards, and administrative fees.*



And unlike other wellness, prevention, and incentive programs, MedEncentive and the Validation Institute will

financially guarantee Customers that the MAIT Program will improve health and produce cost savings.

* Sources :2019 Business Group on Health / Fidelity Investments Employer-Sponsored Health and Well-being Survey, and Reduced Hospitalizations, Emergency Room Visits, and Costs Associated with a Web- Based Health Literacy, Aligned-Incentive Intervention: Mixed Methods Study. *Journal of Medical Internet Research*. 2019;21(10):e14772.

The Genesis

The MAIT Program is a product of its inventor's varied background. Jeff Greene is an industrial engineer. He began his career in the paper manufacturing division of Procter and Gamble. At P&G he learned how to inspire a workforce to achieve production and quality goals, by employing the proven science of industrial psychology, also known as industrial and organizational or I-O psychology.[21]

Later in his career, Jeff built one of the largest and most technologically advanced medical billing firms in the country. In the process, he became a certified practice management executive, taught the subject to third-year medical residents at the University of Oklahoma, and co-authored the text "Practice Management for Family Physician Residents," published by the American Academy of Family Physicians.[22,23]

Throughout his eighteen-year tenure at OU, it was apparent that the industrial psychology principles Jeff had learned in manufacturing, were completely missing in the practice of medicine.

In recent years, there has been some advancement in assessing emotional intelligence (EQ) and providing goal-directed healthcare, but doctors are still not expected to motivate their patients beyond the in-person encounter.[24] Similarly, doctors are not taught how to effectively educate patients to self-manage their health. To us, the lack of emphasis on patient education and motivation in the medical profession, represents a fundamental flaw in healthcare. Addressing this flaw became one of the vital building blocks of the MAIT Program.

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As time went on, Jeff's billing and practice management expertise helped enrich countless physicians, which caused his business to grow to the point that the company's employee health coverage became self-insured. This created a unique dilemma for him. On the one hand, he was being paid to help his physician clients increase their financial wherewithal, which contributed to higher healthcare costs. On the other hand, he served as his company's health insurer, concerned that his business could go bankrupt over ever-increasing healthcare costs.

To make ends meet, Jeff thought, "Should I cost shift to my employees, shift the risk to a commercial health insurer, or do away with health coverage all together?"

While he knew all small to medium-sized businesses face the same issue when it comes to employee health benefits, Jeff realized there were very few business owners who understood the provider reimbursement "game" as well as he did. Jeff possessed a couple of other useful skills—he was a human factors engineer with an aptitude for creative problem-solving.

This set of circumstances created the "perfect storm" that begat the MAIT Program.

As he problem-solved, Jeff observed how little influence his company had on his employees, their family members, and their doctors, in terms of improving health and lowering costs. In effect, his employees expected the company to provide healthcare coverage, no matter how much it cost, and to butt out. Even financial incentives were of little use in effecting improvements in health behaviors.

As far as physicians were concerned, Jeff knew all too well that their license to practice medicine—and healthcare's billing rules—gave medical providers the power to essentially name their price. He noted that, as more and more physicians joined hospital systems and large group practices, medical billing became increasingly business-like and aggressive.

Health improvement and cost containment are principally a matter of human behavior, and Jeff noted that, for decades, *insurers*—including employers, commercial insurers, and the federal government—have attempted countless

behavior-bending strategies, directed *separately* at patients and providers.

Behavior-bending strategies directed toward patients intend to assign a level of personal accountability. These include wellness and prevention; care/disease management; high-deductible, consumer-driven health plans; varieties of benefit-design tweaking; and straight-up cost-shifting. In the process, health coverage has become so complicated that beneficiaries need a health economist and a Philadelphia lawyer to sort through the options.

Jeff observed that all these schemes have one thing in common—they are arrangements between *the insurers* and their beneficiaries that leave doctors out of the equation. In these arrangements, the only tool *insurers* really have to motivate beneficiaries to improve health behaviors, is money, which, as we will explain, is an ineffective and inefficient persuader. And, since physicians are excluded from these arrangements, they can never achieve the essential *Quadruple Aim*.

Conversely, attempts by *the insurers* to control costs that are directed toward medical providers, such as HMOs, ACOs, and a variety of pay-for-performance initiatives, share an essential missing ingredient, namely patient accountability.

Jeff concluded that these approaches were altogether wrong, and that the real behavior-bending power resided in the doctor-patient relationship. The breakthrough occurred when Jeff reasoned that *the insurers* could tap into this relationship by financially incenting both doctors and patients for holding one another accountable, for rendering high quality healthcare and engaging in healthy behaviors, respectively. He envisioned this arrangement as balancing the interests of patients, doctors, and *insurers* in a *win-win-win proposition*, much like a three-legged stool. Jeff recognized that all previous attempts by *insurers* to motivate patients and physicians were unilateral, and therefore, inherently unbalanced and ineffective. Thus, achieving this 'three-way win" was vital.

Balancing the interests of these key stakeholders in a win-win-win proposition

Governments/Employers/Insurers
(plan sponsors/risk-bearing entities)

Now, the trick was finding a way for doctors and patients to interact in a manner that improved health and healthcare, lowered costs and was fulfilling (i.e., the *Quadruple Aim*). Even more challenging was finding interventions that were not only impactful, but easily attainable and fulfilling for both parties.

For the invention to really work, Jeff reasoned it had to go beyond the *Quadruple Aim,* and be 1) *scalable*; 2) *sustainable*; 3) *expeditious*; able to 4) *mitigate the ill effects of inadequate health literacy*; 5) *align the interests of patients, providers, and insurers*; 6) *create the greatest good for the largest segment of the population (i.e., beneficial to whole populations)*; be 7) *socially acceptable and nondiscriminatory*; and, of course, 8) *proven effective scientifically*. We will explore these criteria in greater depth later.

If you are keeping score, the MAIT Program's design objective became the "*Quadruple Aim* plus eight," which evolved to the *Twelve-Part Aim*. A tall order, indeed.

A Confluence

To help explain how the MAIT Program was developed to achieve the *Twelve-Part Aim*, let us introduce a descriptor we call "the confluence of *information therapy* and industrial psychology with value-based healthcare."

To appreciate this descriptor's meaning, we will examine each of its terms individually.

Information Therapy - This term is defined as providing patients with the right information, at the right time, in the right way, so they are more knowledgeable and motivated to better self-manage their health.[25] *Information therapy* is symbolized by *Ix*, much like Rx symbolizes pharmacy.

Information therapy serves a special purpose in the MAIT Program. It addresses the damaging effects of inadequate health literacy, a critically important issue that is continually overlooked and undervalued.

Health literacy is defined as "the degree to which individuals have the capacity to obtain, process, and understand basic health information needed to make appropriate health decisions."[26] Studies cited by the Centers for Disease Control and Prevention (CDC) and the World Health Organization found that inadequate health literacy is associated with higher rates of mortality.[27] These studies also found that inadequate health literacy is associated with higher rates of hospitalizations, emergency room visits, and per capita expenditures.[28,29,30] In fact, health literacy is the single strongest determinant of an individual's health status, life expectancy, and healthcare utilization.[31]

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Not only is inadequate health literacy harmful and expensive, it is also prevalent. According to the U.S. Department of Education, only 1 in 9 Americans has proficient health literacy.[32]

The Health Literacy Round Table of the National Academies of Sciences, Engineering and Medicine had this to say about health literacy:

"Health care is a business. At the same time, health literacy is a way to bring down costs and improve value. When health systems and those who work in health care use health literate methods, there is a better chance that patients will know what they need to do and they should be able to act and manage their health.

"Health literacy is not just the right thing to do for the patient. It is also the right thing to do to make sure we control costs and improve quality. We need this as we switch our payment model to value-based purchasing. The business model we have now for providing health care is moving from one where we make money by using more health care. Soon, providers will make the most money when they keep people in better health and out of the hospital. Health literacy is a vital tool to aid in this movement."[33]

It is notable that the National Academies associate health literacy with value-based care and cost control, a relationship that has heretofore been overlooked and undervalued.

Last year (2020), for the first time since its inception over forty years ago, the U.S. government's Healthy People (HP2030) initiative has added health literacy improvement as an overarching goal for achieving health and well-being.[34]

Last year (2020), for the first time since its inception over forty years ago, the U.S. government's Healthy People (HP2030) initiative has added health literacy improvement as an overarching goal for achieving health and well-being.

Apart from the MAIT Program's use of *information therapy*, there is very little true innovation in the field, a fact most glaring considering the elevated focus on health equity and social determinants of health (SDOH).[35]

The more we researched the subject, the more certain we became that employing *information therapy* would not only address the harmful effects of inadequate health literacy, but also meet other design criteria—impactful, attainable, fulfilling, etc.

Value-based Healthcare – One way to define value-based care is to describe what it is not. The antithesis of

value-based care is volume-based care, which is associated with the fee-for-service payment model and supplier-induced demand (SID). Beyond the economic incentives of SID, studies have found there are other reasons for "low-value care," such as habitual treatment patterns, and the assumption by many doctors and patients that "doing more" is better than "doing less."[36]

Value-based care is typically associated with capitated payments, which transfers some of or all the insurance risk to providers. In theory, capitation intends to reward providers for being judicious in delivering care, but, as previously mentioned, it can cause providers to cherry-pick patients or ration care to control costs and boost profits.

To prevent these unintended consequences, value-based care proponents suggested paying medical providers on the basis of *quality* and/or *health outcomes*.

Research has found that compensating providers to meet *quality* care standards does not necessarily lower costs.[37]

And providers consider paying for *health outcomes* to be problematic because outcomes are largely tied to patients' health behaviors. Providers argue that patient health behaviors are mostly out of their control, or will require considerable investment in an army of nurse coordinators and remote monitoring devices to pester patients into compliance. Therefore, without an efficient, proven, and socially acceptable means to improve the health behaviors of a population, healthcare providers would prefer to avoid the downside financial risk of capitation.

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In recent years, the Centers for Medicare and Medicaid Services (CMS) launched a series of primary-care and ACO models that were set up to share the upside savings, but protected providers from the downside risk of any losses. If cost containment was the objective, commonsense should have warned CMS that this was a bad idea.

In the fall of 2020, the CMS leadership reported that the results from these value-based models were "…generating large losses and a weak return on investment for taxpayers," and that "…a course correction in model design and portfolio selection [will be required] if value-based care is to advance."[38]

Shortly thereafter, CMS introduced a series of historic initiatives designed to bolster value-based care. For the first time, the Stark Law, which makes it illegal for providers to offer patients a financial incentive to stimulate more utilization, was amended to permit such transactions under capitation, provided the incentives are directed toward motivating patients to engage in healthy behaviors. In addition, CMS announced the *Community Health and Rural Transformation (CHART)*, *Primary Care First*, and *Geo* direct-contracting models, all of which involve a form of capitated payments and allow provider-sponsored patient incentives. These are profound developments that are wholly consistent with the MAIT Program design.

More recently, Center for Medicare and Medicaid Innovation (CMMI) director Elizabeth Fowler, J.D., Ph.D., noting that the agency has lost support due to scores of failed value-based care experiments, called for a moratorium on future projects until "forthcoming models can realistically deliver based on evidence and data." She added, however, that "[w]e can't have fee-for-service remain a comfortable place to stay. All parts of the system need to be brought into the value-based world."[39]

Former CMS administrator Donald Berwick and former CMMI director Rick Gilfillan argued that CMMI should "use its authority to scale the ACO model nationally by making it mandatory for all Medicare participating clinicians and hospitals," because "[c]linicians, hospitals and payers find it difficult to operate in an ambiguous world straddling payment for volume and value."[40]

We are advising CMS/CMMI and all *insurers* that changing the provider payment model, and offering patient financial incentives, will not necessarily ensure the success of value-based care. Overcoming resistance to capitated payments and avoiding treatment patterns that assume "doing more is better," can best be accomplished by tapping into the doctor-patient relationship, to provide patients with the right information, at the right time, and in the right way (i.e., *information therapy*), so doctors and patients are equipped to make the best shared decisions. Therefore, value-based care and *information therapy* need to go hand-in-hand.

Industrial Psychology -This brings us to the last term in our descriptor—industrial psychology.

From Jeff's early manufacturing experience, he concluded that managing the performance of a crew of employees is analogous to managing the health of a group of patients. Simply replace "participatory management" with "shared decision-making;" replace job training with *information therapy*; and replace production quotas with health outcomes.[41,42,43,44] Then apply proven industrial psychologies such as Maslow's hierarchy of needs, attribution theory, intrinsic-extrinsic motivation, operant conditioning (as opposed to Pavlovian conditioning), behavioral economics, purpose-driven promise-keeping, guilt aversion, and the Hawthorne effect.[45,46,47]

> *…managing the performance of a crew of employees is analogous to managing the health of a group of patients.*

The MAIT Program is effective because it invokes all these motivators by tapping into the doctor-patient relationship to elicit a unique process called "*mutual accountability*," which we will describe in more detail, later.

Much like *information therapy*, for value-based care to succeed, it needs to go hand-in-hand with doctor-patient *mutual accountability*.

A Full Description of the MAIT Program

Health *insurers* adopt the MAIT Program to improve the health of their beneficiaries and achieve cost savings.

Through the Program, these *insurers* offer financial incentives to both their beneficiaries and their beneficiaries' doctors, for accessing the MAIT website, with each office visit, to complete a Program opportunity (session).

Once online, doctors and patients are financially rewarded for holding one another accountable for completing an "*information therapy*" session.

These Ix sessions involve *mutual accountability* to bring forth a series of psychologies—industrial psychologies—which nudge improvements in care quality and health behaviors, proven to achieve the *Twelve-Part Aim*.

If you follow this description closely, you will realize that all three stakeholders—the patient, doctor, and *insurer*—win. This makes the MAIT Program a perfect remedy to mitigate the downside financial risk of capitated payments in the value-based care model.

> *…MAIT is the perfect remedy to mitigate the downside financial risk of capitated payments in the value-based care model.*

Implementation – The MAIT Program implementation is simple. Customers (*insurers*), either directly or through their health plan administrators, electronically transmit beneficiary eligibility data, at least monthly, and replicate claims data, daily, to the Program's computer system. From there, everything is automated.

At start-up, the Program's computer system uses the eligibility data to send a letter and membership card to all the beneficiaries, informing them that they are covered by the benefit. The letter explains that they will be notified, after each office visit, of their opportunity to participate and earn a financial reward. Physician enrollment occurs as covered patients are treated in-office.

Though the Program can be initiated by other health events, such as a hospital discharge, office visits were chosen as the triggering device for a couple of reasons. First, it taps into the doctor-patient relationship. Second, polychronic patients, who need the healing benefits of the Program the most, and who consume a disproportionate share of total healthcare costs, incur the greatest number of office visits, and, therefore, tend to have the closest relationship with their physicians. A simple, commonsense design.

The Physician's Experience - As the claims are received, the Program's computer identifies the eligible office visits, including preventive exams, mental health, and e-visits, involving all diagnoses (ICD-10). Then the computer sends a fax or email notice to rendering physicians, nurse practitioners and physician assistants, regardless of their medical specialty, informing them that they can earn an additional $15, by accessing the Pro-

gram's website to complete an "*information therapy*" session. To further automate the process, medical practices can integrate the Program with their electronic health record systems, but this integration is not required.

An *information therapy* session for a physician is a simple, two-step process that takes less than a minute. First, physicians consider a treatment guideline. Second, they prescribe an educational article to the patient.

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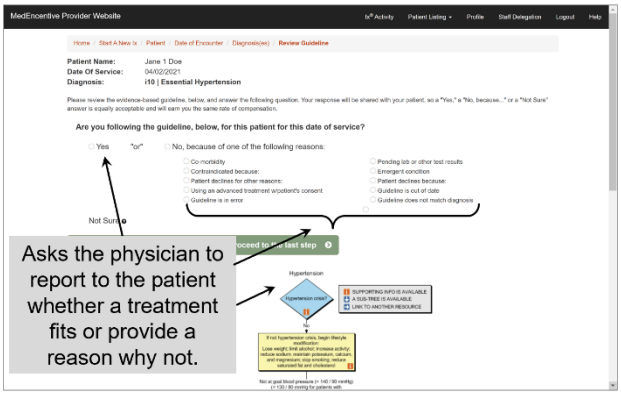
In the first step, the Program asks physicians to inform their patients if an evidence-based treatment guideline is appropriate in a patient's care. If the guideline does not fit, physicians are asked to select a reason from a comprehensive list. The reasons include comorbidities, pending test results, guideline is incorrect, patient refuses treatment, emergent condition, etc.

Asks the physician to tell the patient if guideline fits



Keep in mind that this is a declaration, made by physicians to their patients. It pays the same $15, no matter how the physician responds. This gives doctors the freedom to use their clinical judgment in treating patients, thus avoiding rigid protocols—imposed by health systems, insurers, or the government—to meet arbitrary quality standards.

This "anti-cookbook medicine" feature of the Program is important because it strikes the perfect balance between promoting evidence-based medicine and providing physicians the latitude to use their clinical judgment when a treatment guideline does not fit. Respecting physicians in this fashion is key in gaining their support. Patients similarly appreciate being treated as individuals, rather than with one-size-fits-all protocols.

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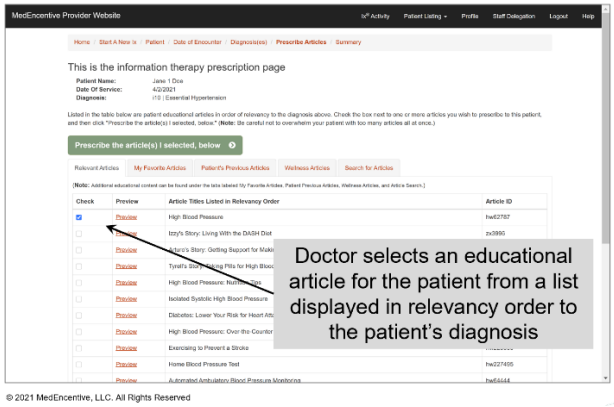
Doctors select relevant educational content



It is notable that this "anti-cookbook" feature is another useful by-product derived from the way the Program taps into the doctor-patient relationship—a hallmark of the MAIT Program.

In the second step, where the Program asks physicians to select an educational article for their patient, the Program's computer runs an algorithm that lists the articles in order of relevance to the patient's diagnosis. The diagnosis code is supplied to the Program's computer system from the office visit insurance claims, or directly from physicians as they complete *information therapy* sessions.

The educational content is supplied by leading developers, such as Healthwise and Quizzify, and is composed at a fifth-grade reading level.

Physicians have four days to complete their *information therapy* session before their opportunity expires. When a physician completes a session, the Program's computer system automatically submits a standard insurance claim to the *insurer*, with an established service code, and the *insurer* pays the physician for rendering an approved med-

ical service.

The Program pays physicians more for timeliness ($15), but the $7.50 paid when doctors need to be notified/reminded, represents an approximate 10% increase in the average compensation for an office visit. Considering it takes less than a minute to complete a session, the Program is one of the most lucrative services a physician can render in-office in terms of time and effort. And as we will explain, if a physician fails to participate, it does not deprive the patient from participating.

For physicians, the Program is designed to be fast, easy, flexible, lucrative, voluntary—and extraordinarily impactful on patient health and well-being.

The Patient's Experience - The patient experience begins after the physician has had an opportunity to participate, when patients receive a notice at home by letter, email, or text message. These notices inform patients that they can earn a financial reward (typically $15) for accessing the Program's website to complete an *information therapy* session.

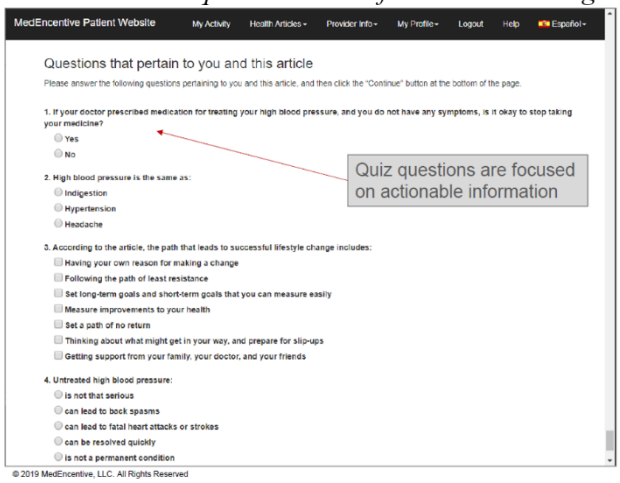
Patient reads relevant educational article:

An *information therapy* session for patients involves five easy steps.

First, patients are asked to read the educational article, prescribed as "homework" by their physician. If their physician fails to participate, MAIT provides patients the list of articles from which to choose themselves. This has been proven to be a simple and effective workaround.

Second, patients are asked to pass a test to confirm they read the article, and to document their understanding of recommended treatments. This process is described as "learn to earn."

Patients answer questions to confirm understanding:



If patients miss a question, they are directed back to the article, and allowed to answer the question again, until they answer it correctly. In other words, the Program's quizzes are "open book," so patients cannot fail.

Remember what we said about the importance of health literacy, and how it is overlooked? Well, believe it or not, this is the first time in medical history that patients are routinely asked to demonstrate and document their understanding of their medical condition and treatment options.

To this point we must ask, how, in the name of sense, can physicians effectively treat patients, if they are not fully aware of what their patients know about their medical condition? How can we know what information patients comprehend/retain if their knowledge is not assessed? In engineering terms, this is considered a missing feedback loop that will cause systems to fail. We believe this is one of the primary reasons that our healthcare delivery system is failing, and our country's health status is poor.

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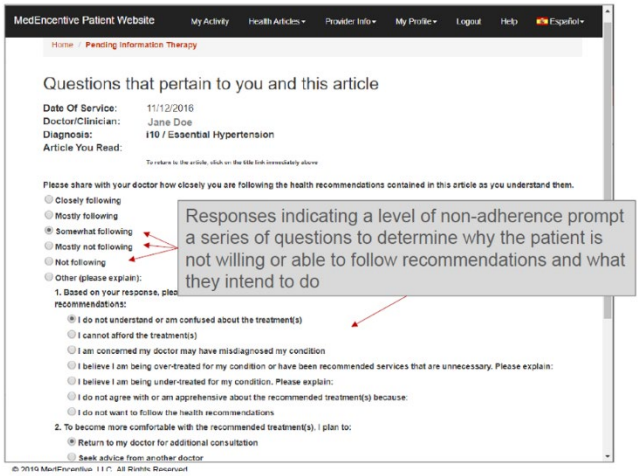
In the third step, patients are asked to declare their adherence to the recommended treatments, or to provide a reason for non-adherence. The list of reasons includes: I can't afford the treatments; the treatments make me feel bad or are ineffective; I think my doctor misdiagnosed me; I'm being overtreated or undertreated, etc. Much like the latitude afforded physicians, patients earn their reward, no matter how they answer this question.

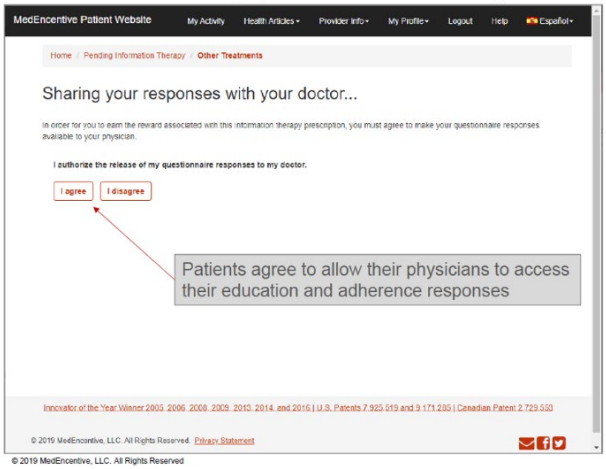
Incidentally, having patients routinely document their adherence to recommended treatments is another first in medical history, and another critical feedback loop that has been missing in healthcare.

Patients declare adherence with recommendations:



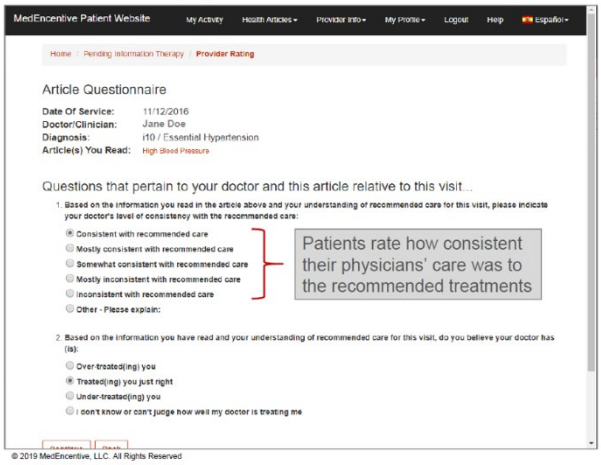
In the fourth step, patients must agree to allow their doctor to have access to their literacy score and adherence declaration. We will elaborate on the importance of this step, shortly.

Patient authorizes physician access to responses:



Finally, patients are asked to rate their physician's performance against what they have just learned about recommended treatments. We believe this method of provider rating is far superior to the government's CAHPS survey or HealthGrades, because, at the end of an *information therapy* session, we have learned, discriminating patients, rating their provider's performance against a diagnosis-specific treatment.

Patient rates physician's care to treatment plan:



Much like the physician experience, when patients complete an *information therapy* session, the Program's computer system automatically submits a claim for payment to the *insurer*, and patients are paid, typically by check or gift card. Again, a simple, commonsense design.[48,49]

Program Costs and Return on Investment – There are three cost components to the MAIT Program: 1) patient rewards; 2) physician compensation; and 3) administrative fees. Obviously, the full cost of the Program depends on the level of doctor and patient participation, but in the previously cited peer-reviewed study, which involved an employer health plan with relatively high participation, the cost of the Program over the three-year trial was $90 per person (member) per year. The annual net savings was $675 per member per year. That equates to a return on investment of 7.5 to 1 per annum. ROI in other Program installations have ranged from 1.5:1 to 10+:1.

What Makes the MAIT Program Effective?

The Psychologies of *Information Therapy* and Patient-Provider-*Insurer* Alignment - There are several factors that make the MAIT Program effective. First and foremost—and it is worth repeating—MAIT aligns the interests of healthcare consumers, providers, and *insurers*, by tapping into the doctor-patient relationship with reward-induced *information therapy* and *mutual accountability*. MAIT's form of *information therapy* incorporates properly framed inquiries, on a frequency (with each office visit) sufficient to invoke a series of (industrial) psychologies

that nudge improvements in medical care and health behaviors, control utilization, and generate cost savings.[50,51] This is the Program's secret sauce.

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More precisely, when the Program asks patients to read a health education article, and take a test, they gain knowledge. Knowledge is a key component of empowerment.[52] Empowerment leads to motivation. Motivation leads to adherence. We refer to this as the knowledge-empowerment-motivation-adherence, or KEMA response, a psychological phenomenon that functions similarly to EMMA (empowerment-motivation-medical adherence) in the research literature.[53]

When the Program asks doctors and patients to declare their adherence to recommended treatments, it inspires promise-keeping and guilt aversion, which are belief-based emotions known to influence human behavior.[54]

When the Program asks patients to allow their doctor to have access to their literacy and adherence responses, many people experience the Hawthorne effect, which teaches that, when in the presence of an authority figure, we are on our best behavior.[55] This is especially true if the authority figure is someone we trust and respect, like our physician.[56]

The combination of these psychologies is designed to nudge patients beyond engagement, to empowerment, accountability, and ultimately, activation.

In layman's terms, the combination of reward-induced *information therapy* and doctor-patient *mutual accountability* are effective because doctors do not want their patients to think or discover they practice sub-standard care, and patients do not want their doctors to think they are health illiterate or non-compliant.

In substantiating the concept of *mutual accountability*, an article in JAMA references a University of Pennsylvania study that found patient-doctor "*aligned incentives*" are more effective than the traditional unilateral incentives that have failed for decades.[57,58] Therefore, employer and *insurer* attempts to motivate beneficiaries and their doctors can never be as effective as the psychosocial motivators inherent to the doctor-patient relationship. This is one of the factors that sets the MAIT Program apart from all other health-improvement and cost-containment solutions.

Behavioral Economics and the Proper Use of Financial Incentives - The Program's financial incentives play an important but limited role. As we will explain, this role differs from traditional employer/*insurer* incentive offerings that attempt to use monetary inducements to improve health and healthcare behaviors.

Behavioral economics teaches that money is likened to a sugar high: it can deliver an immediate and considerable punch, but does not last very long.[59,60] Studies suggest patient financial incentives are most effective when employed as frequent reinforcement of a desired behavior (i.e., conditioning), coupled with other motivators such as loss aversion (the fear of losing or missing out on something).[61] Patients with chronic conditions, who have frequent office visits and are repeatedly rewarded shortly after completing a series of *information therapy* sessions, can experience operant conditioning.[62]

MAIT incorporates these financial incentive concepts (which are, coincidentally, designed to take full advantage of the recent revisions to the Stark Law's patient inducement provision) for the express purpose of reaching levels of participation in the Program, adequate to achieve an overall improvement in health outcomes of full populations, inclusive of participants and non-participants. This introduces an important aspect of the Program, and how it is properly evaluated, that warrants elaboration.

True Value Means No Self-Selection Bias or "*Bad Math*" - For interventions that improve human behavior, such as smoking cessation or weight loss programs, we assume the desired outcomes will occur for those who participate. If this were not the case, then the intervention would be completely irrelevant. But an intervention's true test of effectiveness is "in a full and normally distributed population" in which the intervention must not only achieve a degree of behavior improvement *among the participants*, but also an overall *level of participation* such that *the outcomes of the whole population, inclusive of the nonparticipants, improve*.

This is a key distinction in determining an intervention's real value, which is often overlooked by analysts, or purposefully ignored by vendors.[63] In research jargon, this acid test eliminates self-selection bias, which occurs when the outcomes of those who are predisposed to participate in, and comply with, an intervention, are compared to those who tend to be non-compliant. It is notable that all analyses of the MAIT Program conform to this acid test.

Briefly, the practice of self-selection bias and other inaccurate analytical methods—referred to by population health experts as "*bad math*"—is widely practiced by cost-containment vendors and even respected industry consultants. It is for this reason that GE and Intel originally formed the Validation Institute. MedEncentive unequivocally abides by the analytical methods endorsed by the Validation Institute.

So, this raises three questions. First, what level of participation in the Program is required to achieve the *Twelve-Part Aim* (for a whole population)? Second, how much of a financial reward is needed to achieve that level of participation? Third, can the Program generate enough savings to exceed the full cost of the Program, including the financial rewards, and thus, produce a return on investment?

We have observed that, if at least 55% of the total number of office visits incurred by a covered population, result in a completed *information therapy* session by patients (i.e., 55% of office visits have a corresponding completed session), then the *Twelve-Part Aim* will be achieved, consistently. We have also observed that a $15 patient reward for a successful session is the amount needed to reach the 55% threshold for most populations.[64]

Regarding return on investment, previously cited studies of MAIT have found that an all-in Program cost of around $100 per enrolled beneficiary, per year, typically produces an annual "net" savings of $200 to $700 per enrollee. A simple, commonsense design that produces a powerful value proposition.

Thousands of Voluntary Testimonials Attest to Patient and Physician Fulfillment - With regard to patient fulfillment, in addition to consistently high levels of participation, the Program elicits thousands upon thousands of voluntary testimonials from patients, stating how beneficial MAIT is to their health and well-being, including a few who said it saved a life. Some of the comments are simple, such as:

> *"Great program! Thank you."* Massachusetts patient

Other comments are more expansive, such as:

> *"I very much appreciate the MedEncentive Program, I believe it adds that extra bit of accountability and taking more ownership in MY health. I had never heard of the program prior to my current employer. It's unique to anything i've been offered before…"* Florida patient

…and:

> *The MedEncentive continues to be an important information/motivation/incentive program. It is one of a kind. It works for me. When I ask friends and relatives do their insurance provide this program or a similar one, their response is 'no.' This program or similar ones should be worldwide!"* Florida patient

Regarding physician fulfillment, two leading causes of job dissatisfaction and burnout among doctors are: 1) treating non-compliant and uninformed patients; and 2) being told how to practice medicine that conflicts with their medical training or evidence-based treatments.[65] MAIT helps alleviate these causes.

And physicians post voluntary comments as well, such as:

> *"Knowing my patient is getting additional instructions in a form designed to assure their understanding, no matter their health literacy level, through a well documented third party interaction, is priceless."* Texas physician

Effectiveness Against the *Quadruple Aim* - How does the Program perform against the *Quadruple Aim*?

Using hospitalizations, emergency room visits and costs as surrogates for the health status of a population, the results of the abovementioned studies that associate the Program with improvements in these measures, implies that MAIT achieves 1) *better health*, and 2) *lower costs, which generate a return on investment*.

By definition, anytime a physician participates in the Program and prescribes patients educational content (*information therapy*), it constitutes 3) *better healthcare*.

The high levels of participation, particularly among patients, and the extraordinary satisfaction scores and voluntary testimonials among patients and doctors, indicate that the Program is 4) *fulfilling to patients and doctors*.

From the *Quadruple Aim* to the *Twelve-Part Aim* - How does the Program perform against the other design criteria that constitute the more challenging *Twelve-Part Aim*?

Since MAIT is a telehealth, software-as-a-service (SaaS) program, it is extraordinarily easy to implement and maintain, and, therefore, quite 1) *scalable*. Examples of less elastic solutions include care management, which at scale, requires scores of nurses, who must be recruited and administered, or remote monitoring devices that involve logistics and setup.

The Program is effective because it is 2) *sustainable*. The studies previously cited have shown that the Program maintains the desired participation levels and outcomes, year-over-year. It is not a one-trick pony. By comparison, a recently published randomized trial found that "a comprehensive workplace wellness program had no significant effects on measured physical health outcomes, rates of medical diagnoses, or the use of health care services after 24 months."[66]

The Program is effective because it is fast-acting, i.e., 3) *expeditious*. In fact, the instant patients learn something that helps them self-manage their health, the Program begins to work. And these events occur as soon as the Program is implemented.

Contrast the MAIT Program with traditional wellness programs, in this regard. Smoking cessation, weight-loss, and gym memberships are all worthy health initiatives, but it could take years before they produce cost savings and a return on investment, or never if there is high turnover in a covered population.[67]

With regard to preventive care, there is no doubt that it "reduces the prevalence of disease and helps people live longer, healthier lives…However, there are relatively few clinical preventive care interventions for which there is strong evidence of cost savings."[68]

The aforementioned studies associate both proficient health literacy and the Program with reductions in hospitalizations, emergency room visits and costs. It follows that MAIT 4) *mitigates the ill effects of inadequate health literacy*, which is an essential component of the health equity and social determinants of health initiatives.

Unlike all other motivational approaches between *insurers* and patients, or providers, the Program is uniquely effective because it 5) *balances the interests of patients, doctors, and insurers in a win-win-win proposition*. This patented alignment function, which includes MAIT's *doctor-patient mutual accountability* feature, is key to the Program's effectiveness.

Unlike most other health improvement initiatives that target diseases or disadvantaged populations, the Program is effective because it is designed to apply to whole and normally distributed populations, 6) *providing the greatest good to the greatest number of people*.

It is notable that this "greatest good" feature supports other reform initiatives such as the social determinants of

health, patient engagement, digital health, patient-centric care, behavioral (mental) and emotional health, and, of course, value-based care. This inclusiveness can also help promote medical advancements, such as artificial intelligence (AI) and genetic medicine.

It is notable that this "greatest good" feature support other reform initiatives and medical advancements, such as the social determinants of health, patient engagement, digital health, patient-centric care, and, of course, value-based care.

The Program is effective because it is 7) *socially acceptable and nondiscriminatory*, since it is completely voluntary, and made available to everyone, regardless of health status, income, education, gender, age, race, or creed. Further, the Program's reward process is designed to be easily attainable and accommodating, and does not discriminate against unhealthy or disadvantaged populations in order to promote health equity.

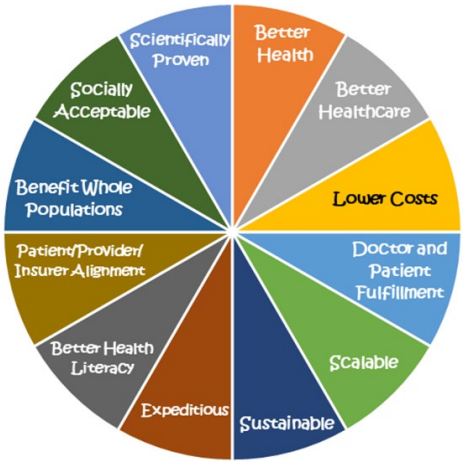
Finally, MAIT has been 8) *scientifically proven effective* at accomplishing something *truly meaningful*. We draw this distinction because, what good are things like predictive modeling, without solutions to the findings? Or remote monitoring/reminder devices without patient adoption/adherence? In this regard, we rely on critically thinking decision-makers, who can separate fact from fiction, and substance from futility, to recognize the MAIT Program's full value.

There you have it. The Program meets every element of the *Twelve-Part Aim*, which simply demonstrates what is possible when *insurers* tap into the doctor-patient relationship with "reward-induced" *information therapy* and *mutual accountability*, to empower and motivate.

Dr. Marty Makary, surgeon, bestselling author, and Johns Hopkins health policy expert, touts the concept of "relationship-based medicine." [69] We offer the MAIT Program as proof-of-concept.

Dave "e-patient Dave" DeBronkart, the noted participatory medicine and personal health data rights activist, strikes a similar chord in his handbook, aptly titled "Let Patients Help."[70]

The Twelve-Part Aim



Defining a Disruptive Innovation to Counter Skepticism - If, after reading about how and why the MAIT Program is effective, including its scientific basis, there are those who are still not convinced, it may be because the Program possesses the rare characteristics that the famed Harvard business professor, Clayton Christensen, described as a "*disruptive innovation*." [71,72] This type of innovation:

1. Solves a complex or seemingly unsolvable challenge with a seemingly simple solution
2. Is typically created by outsiders and entrepreneurs, rather than existing market-leaders
3. Uses off-the-shelf components in a new and different way
4. Tends to be ahead of the market, and often must wait until the market catches up

We hope that an acknowledgment of MAIT's disruptive nature will resolve skepticism about the Program's capabilities. We also want to appeal to a type of cynic we often encounter—decision-makers who are healthy, health literate, enjoy collegial relationship with their doctors, and, as a result, may find limited personal value in the Program. We ask that they put themselves in the shoes of others who have chronic conditions, are in fear and pain, and confused. And while MAIT is designed to be beneficial to everyone, it is the afflicted and the disadvantaged who benefit the most.

Summary and Conclusion

Solving our country's health, healthcare, and cost crises ("*the Crises")* is an urgent imperative. This will require migrating medical providers away from the volume-based, fee-for-service model, to value-based care and an alternative provider payment method, such as capitation.

Providers are resistant to adopting capitation because of its potential downside financial risk due to patient non-compliance. Providers will be more amenable to accepting capitated payments, if and when they have

access to a scalable, sustainable, fast-acting, and socially acceptable solution, proven to motivate patient self-management that controls utilization, and, thus, mitigates capitation's downside financial risk.

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To meet these requirements, a solution must achieve, at minimum, the *Quadruple Aim* (i.e., 1) better health, 2) better healthcare, 3) utilization control and cost savings, and 4) patient/doctor fulfillment), in a full and normally distributed population.

After a thorough inspection, the population health certifying agency, Validation Institute, proclaimed the MedEncentive Mutual Accountability and Information Therapy Program as *the first and only* innovation to have peer-reviewed and validated proof of achieving the coveted *Quadruple Aim*, in a full and normally distributed population. In fact, the Validation Institute has taken the unprecedented step of financially guaranteeing it.

Coupled with discounts offered by leading stop-loss carriers, the Validation Institute's guarantee makes MAIT *the first and only* solution to have achieved this level of third-party confirmation.

MAIT accomplishes these "*first and onlys*" through a patented, web-based incentive system that taps into the doctor-patient relationship to create *mutual accountability* for assimilating *information therapy*, which nudges improvements in care quality and health behaviors. In the process, the Program creates a "confluence" of industrial psychology and *information therapy*, with value-based care that takes full advantage of the federal government's (HHS/CMS) recent initiatives, including the Stark Law's anti-kickback and anti-inducement revisions.

But MAIT goes well beyond the *Quadruple Aim* to satisfy other critical objectives, such as 5) *scalability*, 6) *sustainability*, 7) *expeditiousness*, and 8) *social acceptability*. It also 9) *aligns the interests of healthcare consumers, providers, and insurers in a "win-win-win" arrangement*, 10) *alleviates the ill effects of inadequate health literacy*, 11) *applies to full populations to provide the greatest good to the greatest number of people*, and 12) has been *proven effective, scientifically*. Collectively, we refer to these criteria as the "*Twelve-Part Aim*."

In this paper, we have cited considerable empirical evidence to support our contention that a solution must satisfy *all* these criteria to achieve the stated goals. The MAIT Program is the "*first and only*" solution to do so.

This leads us to one concluding comment:

> *No digital health, artificial intelligence, or genetic innovation; no predictive modelling, or financial scheme, or anything else, will ever achieve the Twelve-Part Aim, make value-based care succeed, or solve our country's health, healthcare, and cost crises, without a proven, socially acceptable solution that educates and motivates patients to attain and maintain good health behaviors, and also provides a "win" for the medical community. Today, there is only one such solution—the MAIT Program.*

If you represent an *insurer*, to include governments, Medicare, Medicare Advantage, Medicaid, commercial insurers, self-insured employers, HMOs, and ACOs; are a value-based care provider; or are simply an interested party, and, as a result of this paper, experienced an "*aha moment*"—i.e., a realization that the science underpinning MAIT, coupled with the Program's documented proof, can be instrumental in solving *the Crises* facing our country—then we invite you to help us advance value-based care, by deploying the MAIT Program, universally.

If you are unconvinced of these facts and assertions, then we refer you back to the "Defining a Disruptive Innovation to Counter Skepticism" section. We also encourage you to test MAIT for yourself, or please step aside. There is simply no time to waste in solving America's health, healthcare, and cost crises.

Acknowledgements

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We would also like to acknowledge one of our colleagues, Robert Purser, who has never received enough adulation for his role in the creation and maintenance of the MAIT Program. Robert has been the MedEncentive Information Technology Director and chief developer of the Program from its inception. His varied and expert skills, and willingness to go far beyond the call of duty, have made it possible for MAIT to achieve its "*first and onlys*." We take this opportunity to sincerely thank Robert for his dedication and tremendous contribution to our mission.

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About the Authors

Susan L. Chambers, M.D. – Dr. Chambers is co-founder and officer of Oklahoma City Gynecology and Obstetrics, L.L.C., which co-owns Lakeside Women's Hospital. Dr. Chambers is also co-founder, medical director, and board member of MedEncentive, LLC.

A graduate of Southern Methodist University and the University of Oklahoma's College of Medicine, Dr. Chambers completed residency training at University of Oklahoma 's College of Medicine, serving as chief resident.

Dr. Chambers is a fellow of the American Board of Obstetrics and Gynecology, and recertified four times. Dr. Chambers is a member of the American Medical Women's Association, Oklahoma County Medical Society, Oklahoma State Medical Society, and American Medical Association. Dr. Chambers has been, or is currently, chairwoman/president of Baptist Medical Center's Perinatal Committee, Western OK Chapter March of Dimes, Central Oklahoma Physicians Alliance (COPA), and March of Dimes Walk America. She also serves on the advisory board, Oklahoma Chapter Susan G. Komen Foundation, and the board of directors, Oklahoma Chapter American Red Cross. Dr. Chambers has a special interest in caring for people in underdeveloped countries. She is past chairwoman and current member of the board of trustees, World Neighbors. Dr. Chambers' active participation in World Neighbors has taken her around the world several times, caring for the sick and injured.

For her numerous accomplishments, charitable activities, and business successes, Dr. Chambers was selected Oklahoma's Woman of the Year in 2002. She and her husband, Kyle Toal, a thoracic surgeon, are parents to three adult children, John, Coralee, and Ben.

Jeffrey C. Greene - Greene is an entrepreneur, award-winning innovator, population health expert, human factors engineer, and co-founder and CEO of MedEncentive. He is the inventor of the "Trilateral Health Accountability Model," a web-based system designed to improve health and lower costs, for which he holds three U.S. patents and a Canadian patent.

From 2005 to 2018, Greene's inventions earned him the Journal Record Innovator of the Year award an unprecedented seven times. Greene holds the distinction as the only person named Patient Advocate of the Year (by the Oklahoma Academy of Family Physicians) and Risk Innovator of the Year (by Risk and Insurance Magazine), which is a testament to his concept of aligning the interests of patients, providers, and insurers.

Prior to starting MedEncentive, Greene founded CompOne Services, which became one of the largest medical practice management and billing firms in the country. He serves on the advisory boards of the University of Oklahoma's School of Industrial and Systems Engineering and the OU Spike Club.

Greene attended the University of Oklahoma on an athletic scholarship, where he was captain of the track team and a record-setting hurdler. He served as a reserve officer in the U.S. Army Corp of Engineers for fifteen years. He and wife Debby are the proud parents of adult children Jess and Sarah Beth.

Publication and Inquiries

Published by: MedEncentive, LLC

www.medencentive.com

Inquiries: MedEncentive
755 Research Parkway
Suite 440
Oklahoma City, Oklahoma 73104
405-319-8452
jdempster@medencentive.com