TENTATIVE VS. DEFINING CRITERIA

The June 2019 issue of the journal Astrobiology features an essay on extraterrestrial life that may have some applicability for health matters here on earth. It does so by presenting a contrast between tentative versus defining criteria, by indicating that the function of tentative criteria is not, like that of defining criteria, to provide an estimate (via a decision procedure) of the likelihood that an extraterrestrial phenomenon is the product of life. Instead, it is to identify phenomena that resist classification as living or nonliving as worthy of further investigation for novel life.

The physicist and philosopher of science Thomas Kuhn argued that a recognition that a puzzling empirical phenomenon is anomalous is a driving force behind scientific revolutions. An anomaly is a violation of a paradigm-induced expectation about a domain of natural phenomena. He characterized scientific paradigms broadly as including laws, theories, and other widely accepted scientific beliefs, as well as sanctioned methods and instruments, concerning a domain of phenomena. Paradigms play vital roles in scientific practice, facilitating the construction of hypotheses, design of experiments, and interpretations of results, but they also may hinder the exploration of nature, discouraging certain lines of research and biasing the interpretation of data. Essentially, a paradigm literally may blind researchers to the presence of anomalies. They either are not perceived as puzzling or alternatively, are interpreted as puzzles that eventually will be solved using the resources (concepts, laws, methods, etc.) provided by the paradigm.

Many key initiatives continue to be undertaken in the health sphere with the intention of improving individual and community health status. The Patient Protection and Affordable Care Act of 2010 was the most ambitious and comprehensive effort in that regard in several decades. Some of its provisions represented the best forms of conventional wisdom, but other portions of the law’s components lacked evidence and may have entailed nothing more substantial than a leap of faith that they would produce desired outcomes. A notable example may be the Hospital Readmissions Reduction Program (HRRP), which was designed to reduce costs and prevent deaths by imposing financial penalties on hospitals if their rate of readmissions within 30 days exceeds an arbitrary threshold.

Based on assessments that have appeared recently in prominent journals (e.g., June 13, 2019 issue of New England Journal of Medicine), the HRRP has assumed the coloration of a debatable proposition rather than a proven fact. Key considerations, such as that a HRRP defines only inpatient hospitalizations, not observation stays or emergency department (ED) visits, as readmissions, and social factors involving poverty cloud the picture quite significantly. The Affordable Care Act was a good faith effort to increase access, lower costs, and improve quality. An implicit assumption involving some aspects of the law was that defining criteria rather than tentative criteria existed, which has the potential to blind advocates of some interventions to the actual worth of what is being proposed. Moving forward in health care, rather than define all proposed actions as valid programs, it would be advisable to consider some of them as experiments awaiting proof of effectiveness.
In my message in the November 2017 issue, I indicated that I will be asking some of you to send a photo and answer a series of “fun” questions to be shared with our membership so that we can continue our collegiality through our newsletter. The 14th of many profiles and the fifth in 2019 is presented as follows:

Name and Title: Gwendolyn Mahon, Dean and Professor
Place of birth: Tullamore, Ireland
University: Rutgers, The State University of New Jersey
How long have you been in your position? 4 years
What’s the value of a university education? Opens up your mind to other worlds.
What is the value of ASAHP? ASAHP provides the opportunity to network with educators, administrators and clinicians from other schools across the country.
Your philosophy on education in seven words: A lifelong endeavor for growth and improvement
If I could teach in another field, which one and why? Architectural Engineering, I love the idea of developing ways to build structures that fulfill real world needs.
Before I retire I want to: Walk the entire Camino de Santiago.
In college, I was known for: Studying and working hard.
What music is playing in my car/office? Spanish guitar, Folk, Alternative Rock
The last book I read for fun was: Born to Run, Christopher McDougall
My favorite trip was: We go to Acadia National Park in Maine every summer and it is always my favorite trip.
If I could travel anywhere it would be: A 6 month driving trip across America in an RV hitting every national park.
Four people I’d take to coffee or have a glass of wine with: Leo Varadkar (current Taoiseach of Ireland), Barack Obama, Jane Goodall, My Mom
The best advice I ever received was: If you have nothing good to say about someone then best to say nothing at all.
My hobby is: Gardening, walking, cooking
My passion is: My family
My pet peeve is: People saying they are bored.
A perfect day is: A foggy day on the coast of Maine with family
Cats or dogs? Like both but allergic to cats.
E-book or hardback? Hardback
Beach or mountains? Mountains
I wish I could: Spend more time outdoors.
Only my friends know I: Love to decorate my home.
My favorite saying is: If you are not going to do your best then do not do it at all.
SPENDING LEGISLATION TAKES SHAPE

The U.S. House of Representatives on a vote of 226-203 on June 19, 2019 approved a four-bill spending package (H.R. 2740). The Minibus included the fiscal year (FY) 2020 Labor, Health and Human Services, Education, and Related Agencies (Labor-HHS) appropriations bill, along with spending for Defense; Energy and Water; and State and Foreign Operations. This legislation specifies all the particulars regarding amounts of money to allocate for a wide range of programs. A prime example is the National Institutes of Health, which stand to benefit by an increase of more than two billion dollars in the upcoming fiscal year that begins this October 1, which is a larger increase than what has been provided in three of the previous four fiscal years.

The Agency for Healthcare Research and Quality (AHRQ) has been slated on several occasions for extinction, including in the current Administration’s budget proposal for FY 2020. Based on action by the House, however, the Agency will continue to exist. Its eventual fate will be determined once the Senate takes action by approving its own spending legislation. Members of that chamber have not yet officially established a timeline for consideration of its FY 2020 appropriation levels.

An ongoing concern in Congress is the steady rise in health care costs. A growing overall population in the U.S. and increases in the number of individuals aged 65 and older, many of whom have multiple chronic health problems, provide assurance that unless some constructive action is taken, costs will increase rather than stabilize or decrease any time soon. Apart from providing appropriations for necessary programs in the health and education spheres, Congress plays a valuable role by conducting hearings to obtain information and guidance on steps that can be taken to respond effectively to various social challenges. An example is that the Senate Health, Education, Labor, and Pensions (HELP) Committee on June 18, 2019 held a hearing on the Lower Health Care Costs Act of 2019 (S. 1895) to examine matters involving a benchmark payment rate for providers. At issue is a concern by representatives from the hospital industry that arbitrary, government-dictated reimbursement could result in significant unintended consequences for patients and create a disincentive for insurers to maintain adequate provider networks.

Except for major figures in Congress, such as House Speaker Nancy Pelosi (D-CA), and Senate Majority Leader Mitch McConnell (R-KY), the 535 elected members of the two chambers may be the equivalent of a giant blur to anyone who does not work for a living as a lobbyist. A fascinating group with a wide range of personal experience and ideological beliefs, legislators are confronted with the challenge of doing their best to represent the constituents who sent them to the nation’s capital as well as act effectively on behalf of the interests of the nation as a whole. An unintended consequence of this duality is that meeting the needs of the voters back home may not always correspond exactly with how the nation itself would benefit.

Members of Congress come from all walks of life, including as health professionals. A head count indicates that four Senators are from the following professions (surgery, optometry, gastroenterology, and ophthalmology). In the House, 26 Representatives are from several professions, including a rehabilitation therapist from Pennsylvania, 13 physicians, and five dentists.

<table>
<thead>
<tr>
<th>2019-2020 ASSOCIATION CALENDAR OF EVENTS</th>
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<tr>
<td>October 16-18, 2019 — ASAHP Annual Conference in Charleston, SC</td>
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<tr>
<td>October 26-30, 2020 — ASAHP Annual Conference in Long Beach, CA</td>
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HEALTH REFORM DEVELOPMENTS

Chronicity is a term frequently employed to describe the kinds of health problems that affect patients aged 65 and older. It also can be applied to health workforce challenges that steadily prove difficult to overcome. Rural sections of the United States represent areas that often suffer the effects of being inadequately served as a result of severe shortages of various kinds of health professionals. Mental health offers a good example of where considerably more effort is needed to address the health care needs of residents of rural areas. Compared to urban locales, for example, suicide rates are higher in rural parts of the nation.

Unfortunately, no single magic bullet is available to remedy the fact that as many as one-half of U.S. counties, predominantly located in rural areas, do not have a single psychiatrist to respond to the needs of residents. As an illustration of a recently proposed legislative remedy, the “VA Mission Telehealth Clarification Act” was introduced in the U.S. House of Representatives on June 12, 2019. It has seven co-sponsors for the purpose of authorizing health professional trainees to provide treatment via telemedicine. Proposals of a broader nature would involve allowing Medicare beneficiaries to access mental health services through telemedicine regardless of where they live and without having to leave home.

A different kind of approach would entail helping mental health professionals pay off their educational debt if they agree to work in an area with a shortage of workers. Inadequate reimbursement levels may be a major disincentive for mental health professionals to live and work in rural areas, especially in sections of the country that are remote. A way of addressing the situation would be to consider using peer support specialists who could work with doctors who treat patients using telemedicine. These individuals are neither physicians nor other kinds of health professionals. Instead, they are characterized by having knowledge derived from their own personal recovery process in combination with some formal training to enable them to support patients confronting similar challenges.

Obtaining More Savings From Accountable Care Organizations

The Medicare Shared Savings Program (MSSP) has produced modest savings for Medicare and been popular among health care providers, with 561 participating accountable care organizations (ACOs) covering nearly a third of the fee-for-service Medicare population in 2018. According to a paper in the June 6, 2019 issue of the New England Journal of Medicine, the savings pace has not proven to be commensurate with Medicare’s fiscal challenges, however, prompting calls for reform. The Centers for Medicare and Medicaid Services (CMS) responded in December 2018, with “Pathways to Success.” Strengthening incentives for ACOs to reduce spending is challenging because the program is voluntary. Some approaches, such as requiring ACOs to bear downside risk for excess spending, may make the program unattractive to some providers, potentially lowering program-wide savings by reducing participation. The involvement of providers with high spending that isn’t explained by patient risk factors is particularly critical to MSSP success, because the care their patients receive (including care from other providers) presents the greatest opportunities for savings. So far, ACOs with high risk-adjusted spending have lowered spending more than ACOs that began with low spending.

Hearty Perennials Of The Affordable Care Act Battles

For several years, supporters of the ACA have attempted to force the Little Sisters of the Poor to provide free-of-charge abortion-inducing contraceptives to their employees under this law. A 2011 HHS mandate requiring employers to provide certain health care, including birth control and emergency contraception, generated a lawsuit by the nuns. They sued in 2013 to be exempt from the rule, but lengthy court battles later, the case still is ongoing. New HHS rules created in 2017 allowed for religious exemptions for employers, including the group run by the Little Sisters of the Poor, but 13 states and the District of Columbia sued to block the rules. Two judges in January temporarily blocked the rules from going into effect, but a hearing presided over by a federal judge in California in June 2019 helps to guarantee that the dispute will continue to be ongoing regardless of any ruling that emerges.
The 1st Session of the 116th Congress began in January 2019 with an expectation among legislators that this year would be the one to resolve issues for a most important piece of legislation know as the Higher Education Act. Last reauthorized in 2008, since 2013 it has been sustained by a series of short-term continuing resolutions (CRs). As of June 2019, some doubt continues to exist regarding whether the task can be completed by the end of this year. Teams consisting of staff members for Senators Lamar Alexander (R-TN), Chairman of the Committee on Health, Education Labor & Pensions (HELP), and Ranking Member Patty Murray (D-WA) have been working to produce a bill that can achieve bipartisan agreement. An inability to meet their self-imposed deadline of having a bipartisan proposal finished by the end of May would appear to render it unlikely that a bill can be brought to the Senate floor any time soon.

This massive piece of legislation consists of many components, any one of which has the potential to create more delay. Examples are: simplifying the federal student aid application, creating a new income-based repayment plan for borrowers, building a new accountability system for colleges based on whether borrowers actually are repaying their loans, expanding competency-based education programs, requiring colleges to use clearer language in letters telling students about the aid they are receiving, Title IX campus sexual assault incidents, and collecting better data on how much students borrow and how much they earn after graduation. Other aspects include allowing incarcerated individuals to access Pell Grants and making grants available for shorter academic programs. Worth noting is that some current issues not easily resolved are accountability as it relates to the for-profit sector and student loan repayments.

Federal Work-Study (FWS) Experiment Launched
U.S. Secretary of Education Secretary Betsy DeVos announced a new Federal Work-Study (FWS) Experiment to provide institutions with increased flexibilities that will enable students to earn work-study benefits while participating in apprenticeships, internships, and work-based learning programs, as well as earn work-study wages while completing required clinical rotations, externships, and student teaching. “For decades, the Federal Work-Study program has allowed students to support themselves while earning a college degree, but for too long, the majority of the work options students have had access to have been irrelevant to their chosen field of study,” she stated. Under the current FWS program, nearly 92% of all funds are spent to support students in on-campus employment, while just over 8% support students working for non-profit organizations. Less than one-tenth of 1%, or just $726,000 of the billion-dollar FWS program, are spent to support students in private-sector employment, where many students are likely to seek permanent employment. The experiment is aimed at eliminating barriers that made engagement with private-sector employers undesirable for many colleges and universities.

Proposed Regulations On Accreditation, Innovation And Other Topics
The U.S. Department of Education (USDE) on June 12, 2019 published proposed regulations on accreditation, innovation, and other topics, reflecting the draft consensus language approved by the negotiated rulemaking committee that met earlier this year and reached consensus on April 3. The proposed regulations would affect several areas involving accreditation, including: increase expectations by USDE concerning student achievement; provide more flexibility for innovation for institutions and accrediting organizations; and increase the time for institutions and programs to come into compliance with accreditation requirements.

Two aspects of interest for institutions belonging to ASAHP are: (1) Establish that the Department recognizes an institution’s legal authorization to operate postsecondary educational programs when it is exempt from State authorization under the State constitution or by State law as a religious institution with a religious mission, and (2) Revise the State authorization requirements for institutions offering distance education or correspondence courses.

A public comment period began on June 12, 2019 and is in effect until July 12, 2019. Comments can be submitted electronically at https://www.regulations.gov/.
QUICK STAT (SHORT, TIMELY, AND TOPICAL)

Prescriptions Filled By Americans In 2018
Americans filled 5.8 billion 30-day equivalent prescriptions in 2018 (17.6 prescriptions per person), an increase of 2.7% from the prior year, according to the IQVIA Institute for Human Data Science’s report, *Medicine Use and Spending in the U.S.* More than two-thirds of prescriptions are for chronic conditions, which increasingly are filled with 90-day prescriptions and are thought to result in better adherence to prescribed regimens. Retail and mail pharmacies dispensed 127 million specialty prescriptions last year, an increase of 15 million since 2014. While specialty drug prescriptions increased more than 5% between 2017 and 2018, these drugs make up just 2.2% of all prescriptions. The report also notes that patient out-of-pocket costs increased in 2018 to an estimated $61 billion, with Medicare patients facing higher annual out-of-pocket costs than patients in commercial plans or those enrolled in Medicaid.

Dental Care Among Adults Aged 65 And Older
Dental care often is an overlooked aspect of overall health care among older adults. In 2017, slightly less than one-third (29.2%) of adults aged 65 and over had dental insurance. National Center for Health Statistics (NCHS) data show that overall, approximately two-thirds of adults aged 65 and over had a dental visit in the past 12 months. Older adults who were poor (42.7%) or near poor (42.8%) were less likely to have had a dental visit compared with non-poor (74.4%) older adults. Non-Hispanic black (11.2%) and Hispanic (12.3%) adults aged 65 and over were more likely to have unmet need for dental care due to cost compared with non-Hispanic white (6.8%) and non-Hispanic Asian (5.9%) older adults. The percentage with dental insurance was higher among those aged 65–74 (34.3%) compared with older age groups and lower among Hispanic adults (17.5%) compared with other race and Hispanic-origin groups.

HEALTH TECHNOLOGY CORNER

3-D Print Flexible Mesh For Knee And Ankle Braces
Limb prosthetics are medical devices that can be digitally designed and customized for individual patients, as a result of 3-D printing. Typically, they are designed to replace or support bones and other rigid parts of the body, and often are printed from solid, relatively inflexible material. According to an article published on June 19, 2019 in the journal *Advanced Functional Materials*, engineers at the Massachusetts Institute of Technology have designed pliable, 3-D-printed mesh materials with flexibility and toughness they can tune to emulate and support softer tissues such as muscles and tendons. Additive manufacturing (AM) of medical devices such as orthopedic implants and hearing aids is highly attractive because of its potential to match the complex form and mechanics of individual human bodies. Externally worn and implantable tissue-support devices, such as ankle or knee braces, and hernia repair mesh, offer a new opportunity for AM to mimic tissue-like mechanics and improve both patient outcomes and comfort.

Using Pig Brains To Understand Human Brain Functions
An article published on May 22, 2019 in the journal *Brain Connections* by researchers at the University of Georgia’s Regenerative Bioscience Center reports on a study that shows that as a translational, large animal model, pigs demonstrate great potential for mapping connectome-scale functional connectivity in experimental modeling of human brain disorders. The investigators used an imaging method normally reserved for humans to analyze brain activity in live agricultural swine models, discovering that pig brains are even better platforms than previously thought for the study of human neurological conditions such as Alzheimer’s and Parkinson’s diseases. An immediate potential application is in the study and diagnosis of chronic traumatic encephalopathy (CTE), a progressive brain disease caused by a series of blunt trauma usually seen in military veterans and National Football League players. Currently, CTE can be diagnosed only through an autopsy.
AVAILABLE RESOURCES ACCESSIBLE ELECTRONICALLY

Financial Burden Of Paid Home Care On Older Adults

According to an article in the June 2019 issue of the journal *Health Affairs*, paid home care can significantly improve the lives of older adults with disabilities and their families, but recipients often incur substantial out-of-pocket spending. Researchers simulated the financial burden of paid home care for a nationally representative sample of non-Medicaid community-dwelling adults aged sixty-five and older. Researchers found that 74% could fund at least two years of a moderate amount of paid home care if they liquidated all of their assets, and 58% could fund at least two years of an extensive amount of paid home care. Among older adults with significant disabilities, however, only 57% could fund at least two years of moderate paid home care by liquidating all of their assets, and 40% could fund at least two years of extensive paid home care. This form of care could become less affordable if growing labor shortages raise future costs. The article can be obtained at https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.2019.00025.

Faith-Health Collaboration To Improve Community And Population Health

On March 22, 2018, an ad hoc committee of the National Academies of Sciences, Engineering, and Medicine planned and convened a one-day public workshop that explored challenges and opportunities for health sector actors that engage with faith-based health assets. The workshop provided an overview of faith-based assets in communities and their relationship to population health and the work of health improvement; highlighted areas where faith-based health assets are using evidence to inform their work and demonstrating effectiveness in improving health outcomes; provided examples of effective partnerships involving faith-based health assets; and shared lessons learned from working with faith-based assets that could contribute toward principles for engagement for health care organizations and public health agencies. The workshop proceedings can be obtained at https://www.nap.edu/catalog/25375/faith-health-collaboration-to-improve-community-and-population-health-proceedings.

Family Care-Giving Roles In Medical Product Development

For the first time, a newly-released report, resulting from a one-day summit, “Paving the Path for Family-Centered Design: A National Report on Family Caregiver Roles in Medical Product Development,” explores the vital roles that family caregivers can play in shaping biomedical research and development, regulatory decision-making, and healthcare delivery. Specifically, the report begins a dialogue on how to incorporate the critical knowledge of caregivers in developing pharmaceutical products, biotechnology therapies, and medical devices. It presents recommendations for leveraging the enormous and largely untapped reservoir of information and observations of caregivers about the conditions their care recipients experience and health outcomes. Approximately 43.5 million individuals provide unpaid caregiving services to Americans of all ages, 60% of whom have a long-term health condition. The report can be obtained at https://www.caregiving.org/wp-content/uploads/2019/05/NAC_LEAD-Coalition_Paving-the-Path_Report_May-2019.pdf.

2018 National Health Interview Survey Selected Estimates

Early released measures based on selected estimates in the 2018 National Health Survey provide valuable information on a wide range of topics, including health insurance coverage, places to go for health care, obesity, and personal care needs. The measures can be obtained at https://www.cdc.gov/nchs/nhis/releases/released201905.htm.
ASAHP SUMMIT ON ACADEMIC PROGRAMS AND CLINICAL PRACTICE

The Association of Schools of Allied Health Professions hosted its 2nd Annual ASAHP Summit on May 31, 2019 at Saint Louis University in St. Louis, MO. The theme of this year’s event, co-hosted by Kindred Healthcare and Saint Louis University’s Doisy College of Health Sciences, was “Connecting Academic Programs and Clinical Practice Together to Inform System Improvement.” The Summit was a first-ever collaboration between ASAHP’s Professional Education Committee and Clinical Education Task Force (CETF), bringing multiple interested parties together in a convenient venue to discuss important factors in the connection between academia and the healthcare industry.

ARTIFICIAL INTELLIGENCE AS A HEALTH MANAGEMENT TOOL

Using Herbert Simon’s concept of “bounded rationality,” it is considered highly likely that in complex situations an individual often will pursue a course of action that satisfies the minimal requirements necessary to achieve a particular goal rather than an optimal choice, even when attempting to be rational in decision-making. An article in the June 2019 issue of the journal Nature Human Behavior describes artificial intelligence (AI) as the use of computer algorithms to mimic human cognitive functions, such as learning or problem solving. AI facilitates the analysis of data with a lens that surpasses human capacity through its ability to process data and information, addressing the issue of bounded rationality. AI also is devoid of behavioral limitations, including unsubstantiated deviation from evidence-based guidelines, influence of peers in hierarchical cultural norms, and fatigue.

Antibiotic prescribing, whether appropriate or inappropriate, is a driver of antimicrobial resistance, a complex social and biological challenge that reflects many problems Simon set out when describing the boundary of rationality. It also is an ideal example of when caring for an individual has immediate and far reaching externalities. A decision made to prescribe an antibiotic affects not only the individual patient, but also an individual’s microbiome and society as a whole, through the selection of drug-resistant organisms. Decision-making during infection management is a dynamic and often inconsistent process. The development of AI systems in the field of infection still is in its infancy. Nonetheless, a range of supervised and unsupervised AI tools have been developed, including causal probabilistic networks and support vector machine classifiers. These tools have shown high accuracy in predicting infection and recommending appropriate antibiotic therapy. AI provides the potential to integrate these complex processes and support optimal use of data for evidence-based decision-making.