VARIETIES OF PLAGUES BOTH OLD AND NEW

The word plague is versatile, whether used as a noun to describe the assault of a communicable disease on a population or as a verb to convey chronic emotional distress. The first category may best be exemplified by the endemic Black Plague that devasted human life in late Medieval and Renaissance Europe. One historical account in the journal Bulletin of the History of Medicine led to an estimate that the mortality rate from the Black Death and its collateral effects devastated 60% of the entire European population (50 million of its estimated 80 million inhabitants).

Often referred to as the White Plague, during the first half of the 20th century in the U.S., large county tuberculosis (TB) hospitals across the nation housed patients requiring specialized care. A most deadly disease, a provisional total of only 9,029 TB cases were reported in the U.S. in 2018, (an incidence of 2.8 cases per 100,000 persons). The rate among patients born outside this country, however, was more than 14 times higher than that of individuals born here. Risk factors include HIV infection status, a history of homelessness, and residence in a congregate setting.

Until the mid-1950s, polio outbreaks triggered fears of becoming a patient confined for the rest of one’s life in an iron lung. When the Global Polio Eradication Initiative (GPEI) began in 1988, cases of poliomyelitis were reported from 125 countries. Since then, only Afghanistan, Nigeria, and Pakistan have experienced uninterrupted transmission of wild poliovirus (WPV).

Although declared eliminated in the U.S. in 2000, total cases of measles nationwide as of April 11, 2019 already have surpassed those of 2018 and likely soon will eclipse totals for 2017 and 2018 combined, according to the CDC. During the 1940s and early 1950s, the editor of this newsletter in his youth was afflicted with mumps, measles, whooping cough, German measles, chickenpox, and scarlet fever. None of those conditions was considered rare back then, which happily is quite the opposite of the present day, reflecting the current widespread availability of vaccines, effective drugs, and improved standards of living.

Meanwhile, the relative disappearance of some diseases has been replaced by the emergence of other conditions primarily associated with a sense of being plagued by doubts and uncertainties about the purported advantages of modern day life. For example, despite evidence of the positive role that vaccines play in preventing disease, some parents refuse to have their children immunized because of a fear that it causes autism. According to a recent national Pew Research Center study, when Americans peer 30 years into the future, they see a country in decline economically, politically, and on the world stage. Such grim predictions reflect a sour public mood while more extreme forms of hopelessness contribute to suicide continuing to remain among the top 10 causes of mortality in the U.S. since 2008.

Nevertheless, poking through a cloud of despair is a hearty ray of sunshine in the form of knowledge that the health professions remain a sound career choice. An aging population characterized by chronic ailments will require health care services that are not easily transportable to other countries or replaceable by robots.
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 12th of many profiles and the fourth in 2019 is presented as follows:

Name and Title: Yasmen “Yas” Simonian, PhD, MLS(ASCP)CM, FASAHP  
Dean and Brady Presidential Distinguished Professor  

Place of birth: Tehran, Iran  
University: Weber State University  
How long have you been in your position? Eleven years  
What’s the value of a university education? Opens a world of opportunities. The sky is the limit.  
What is the value of ASAHP? Networking, CE, opportunities to present, share ideas, and more.  
Your philosophy on education in seven words: Learn lots and then make a decision.  
If I could teach in another field, which one and why? History of Medicine, I like the subject.  
Before I retire I want to: Leave a legacy that will make a difference for many years to come.  
In college, I was known for: Helping others and partying.  
What music is playing in my car/office? In the car Greek dancing music and in the office mellow classical.  
The last book I read for fun was: Becoming Michelle Obama  
My favorite trip was: Greece any day  
If I could travel anywhere it would be: Spain, Italy, Greece, Armenia, Serbia, Romania, Middle East  
Four people I’d take to coffee or have a glass of wine with: Farogh, Hassan, Helen, mom  
The best advice I ever received was: Listen before you talk.  
My hobby is: Dancing, cooking, traveling, music.  
My passion is: Being with my family and friends.  
My pet peeve is; People not putting things back from where they got it from.  
A perfect day is: A sunny day on a beach under an umbrella  
Cats or dogs? Dog  
E-book or hardback? Both  
Beach or mountains? Both  
I wish I could: Cure cancer  
Only my friends know I: Ask me later.  
My favorite saying is: You can do it.
Tuesday, March 16 marked the 100th day of the 116th Congress, a period of considerable activity. Both the House Energy and Commerce Committee and the Ways and Means Committee have marked up bills involving the Affordable Care Act and drug pricing. On the Senate side of Capitol Hill, the Health, Education, Labor, and Pensions Committee has sought information from a wide range of sources regarding how to reduce health care costs for taxpayers, employers, and families after concluding a series of five Senate health committee hearings exploring the same topic.

Congress already has enjoyed a measure of success by having some health care bills signed by President Trump, including: the Medicaid Services Investment and Accountability Act of 2019 (H.R. 1839) and the Medicaid Extenders Act of 2019 (H.R. 259). Progress is being made to enable other pieces of health legislation to advance, such as the Pandemic and All-Hazards Preparedness and Advancing Innovation Act of 2019 (H.R. 269) and the Poison Center Network Enhancement Act of 2019 (H.R. 501). Other items requiring attention this session involve legislation to renew expiring programs that involve Community Health Centers and Teaching Health Centers.

A hearty perennial that keeps Congress active is completing work on 12 appropriations bills. House Democrats were forced to cancel a vote on top-line budget numbers because of intra-party disagreement. Some party members supporting H.R. 2021 want to increase defense spending in 2020 by $17 billion for a total of $664 billion and non-defense spending by $34 billion for a total of $631 billion. Other Democrats insist that non-defense spending be raised to the same level as defense spending.

In the health arena, there is little support for the Trump Administration’s FY 2020 budget request involving medical research. Many Republican legislators are inclined to reduce government spending whenever possible, but Subcommittee Chairman Roy Blunt (R-MO) of the Senate Subcommittee for Labor-HHS Appropriations indicated that re-prioritizing funding for the National Institutes of Health (NIH) after a decade of stagnation has been his number one priority. The Administration’s budget request to reduce NIH support by $4.9 billion (a 13% cut) is not a choice he intends to make when the Labor-HHS spending bill is written.

The release of the Mueller Report on April 18 regarding whether President Trump was involved in collusion with Russia or obstruction of justice involving the U.S. presidential election in 2016 has not resulted in producing total calm in political waters that have been roiled for the past two years. A traditional role of Congress is to conduct hearings to examine the performance of federal agencies and to investigate suspected wrongdoings. As of April 2019, it is clear that Democrats in the House of Representatives will use that power to hold hearings on important matters they believe remain insufficiently addressed by the Mueller Report.

Meanwhile, the 2020 election cycle appears to be in full swing even though votes will not be cast for another 19 months. The Democrats lack no shortage of candidates who deem themselves worthy of residing in the big house at 1600 Pennsylvania Avenue, N.W. come January 2021.

### 2019-2020 ASSOCIATION CALENDAR OF EVENTS

**May 31, 2019**—ASAHP Summit at Saint Louis University

**October 16-18, 2019** —ASAHP Annual Conference in Charleston, SC

**October 26-30, 2020**—ASAHP Annual Conference in Long Beach, CA
HEALTH REFORM DEVELOPMENTS

The Affordable Care Act that became law in 2010 was aimed at expanding the number of individuals with health insurance coverage, reducing health care costs, and increasing the quality of care provided. Although much progress has been made since that year, certain difficulties continue to be unresolved, with a main one being a portion of the U.S. population still lacking adequate coverage.

During the 2016 Presidential campaign, Senator Bernard Sanders (I-VT) ignited great enthusiasm among his followers for his pledge to see to it that a Medicare For All bill would be enacted if he were elected. That notion is as relevant today as it was back then as evidenced by several prominent Democrats who have entered the race for the next presidential election and gone on record in support of his approach.

He introduced an updated version of his proposed legislation (S. 1129) on April 10, 2019. It would replace nearly all forms of private health insurance with a government-managed, single-payer version of Medicare that guarantees coverage to all Americans. The universal health care program would include coverage of primary care, hospital stays, mental health treatment, and prescription drugs. This latest iteration also includes coverage for dental, vision, hearing, and home and community-based long-term care services, which resembles the House version of H.R. 1384 that was introduced by Rep. Pramila Jayapal (D-WA) on February 27. Under provisions of the Sanders bill, states would be allowed to provide additional benefits from their own budgets, and the Indian Health Service (IHS) and Veterans Health Administration (VHA) would remain in place. The legislation does not specify how it will be financed.

Provision Of Non-Medical Services For Social Needs That Affect Health

The Trump Administration at the beginning of April 2019 released guidance indicating that beginning in 2020, Medicare Advantage plans, private health plans that contract with Medicare, will be allowed, but not required, to offer chronically ill enrollees non-medical services for social needs that affect health. Plans will be able to select which non-medical services they offer, as long as there is a “reasonable expectation that the services will help people with chronic conditions improve or maintain their health or overall function.” Examples of services include: home-delivered meals, transportation for non-medical needs, pest control, indoor air quality equipment (e.g., an air conditioner for a patient with asthma), and minor home modifications (e.g., permanent ramps, widening of hallways or doorways to accommodate wheelchairs). The new coverage flexibility was made possible by the Creating High Quality Results and Outcomes Necessary to Improve Chronic (CHRONIC) Care Act (S. 870), which was a component of the Bipartisan Budget Act of 2018 (P.L. 115-123) that the President signed into law in February 2018.

House Reaction To A Lawsuit To Invalidate The Affordable Care Act

In February 2018, attorneys general in 20 states filed a lawsuit claiming that the 2017 Tax Cut law and the Jobs Act’s reduction of the individual responsibility tax penalty to zero, in effect made the Affordable Care Act’s individual mandate unconstitutional. The following December, a federal court judge in Texas entered a judgment that if the suit is upheld, the entire ACA would become invalidated. Democratic attorneys general in 17 states subsequently intervened to defend the entirety of the health reform law. The U.S. House of Representatives in April 2019 joined the fray by passing a measure (H.Res. 271) by a vote of 240-186, condemning the Trump Administration’s support for the lawsuit that would invalidate the ACA. Eight Republicans joined their Democratic colleagues in supporting the resolution, essentially agreeing that a replacement plan must be installed before the law is repealed.

Despite being rebuffed in their efforts in 2017 when Republicans controlled both chambers in Congress, a desire by that party to repeal and replace the ACA has not vanished totally. Its members recognize that a comprehensive replacement plan will have to be designed prior to attempting to launch any repeal effort in the future.
DEVELOPMENTS IN HIGHER EDUCATION

A major objective of the Association of Schools of Allied Health Professions (ASAHP) is to be a leading interprofessional voice for improvements in health and health care. An essential belief is that all health professions programs and schools should provide interprofessional education (IPE) opportunities for students from several health disciplines in order to foster competencies beyond clinical care, including leadership, advocacy, and evidence-based practice. Another significant step in that direction is the upcoming 2019 ASAHP Summit, a project co-sponsored by the ASAHP Interprofessional Subcommittee and the ASAHP Clinical Education Task Force, and co-hosted by Kindred Healthcare and Saint Louis University. In preparation for this event scheduled to occur on May 31, 2019 at Saint Louis University, Association members are being requested to complete a survey regarding some recommendations made by the Clinical Education Task Force. Information derived from the study will enhance Summit activities.

Developments in interprofessional education involving allied health are featured in the Association’s Journal of Allied Health. A new section called “Interprofessional Practice and Education” was created in this publication beginning with the Fall 2017 issue. Eleven IPE articles appeared in the four issues of the journal distributed in 2018. Two more appeared in the Spring 2019 issue and another two are scheduled for the Summer 2019 issue. Also, the recipient of the ASAHP Excellence and Innovation in Interprofessional Education and Collaborative Health Care Award will be announced later this year.

Secretary DeVos Testifies At House Hearing On Department Of Education Policies And Priorities

Department of Education Secretary Betsy DeVos testified on April 10, 2019 at a House Education and Labor Committee hearing entitled “Examining the Policies and Priorities of the U.S. Department of Education.” The purpose of the hearing was to consider the Department’s fiscal year 2020 budget request and other Department initiatives. She discussed the Administration’s proposals to create a single income driven repayment (IDR) plan capped at 12.5% and to eliminate the Public Service Loan Forgiveness program. She opined that the current loan program provides an after-the-fact benefit that fails to help students complete their program and does not take into account borrower earnings in their chosen professions. The aim of the Administration’s proposed plan is to support all borrowers pursuing any career through the single IDR plan, which will allow them to make affordable monthly payments based on their income.

Negotiated Rulemaking On Accreditation, Innovation, And Other Topics

The U.S. Department of Education (USDE) released draft consensus language from its negotiated rulemaking on accreditation, innovation, and other topics on April 17, 2019. Negotiated rulemaking is the process used by the USDE to negotiate the terms of a proposed administrative rule or regulatory change. The negotiated rulemaking full committee met four times between mid-January and early April, 2019. Three subcommittees that addressed distance education, faith-based institutions, and TEACH Grants made recommendations to the full committee. Consensus language pertaining to revised regulatory proposals will affect accreditation in some of the following ways:

♦ Require more transparency regarding where regional accreditors operate
♦ Provide more flexibility for innovation for institutions and accreditors
♦ Protect students through enhanced disclosure and teach-out requirements
♦ Simplify and balance the recognition process for both USDE and accrediting organizations
♦ Require arbitration of accreditation decisions prior to going to court
♦ Make it easier for new accreditors to gain recognition

Next, USDE will publish a Notice of Proposed Rulemaking (NPRM) in the Federal Register and provide for a public comment period. For the rule to take effect on July 1, 2020, the final rule must be published in the Federal Register by November of this year.
QUICK STAT (SHORT, TIMELY, AND TOPICAL)

Disparities In Prevalence Of Major Cancer Risk Factors And Screening Test Use In The U.S.
According to the April 2019 issue of the journal *Cancer Epidemiology, Biomarkers & Prevention*, individuals with lower educational attainment have higher prevalence of modifiable cancer risk factors and lower prevalence of screening versus their more educated counterparts. Smoking prevalence is six times higher among males without a high school education than female college graduates. Nearly half of women without a college degree are obese versus about one-third of college graduates. Over 50% of black and Hispanic women are obese compared with 38% of whites and 15% of Asians. Breast, cervical, and colorectal cancer screening utilization is 20% to 30% lower among those with less than high school education compared with college graduates. Screening for breast, cervical, and colorectal cancers also is lower among Hispanics, Asians, and American Indians/Alaska Natives relative to whites and blacks.

Foreign-Body Ingestions Of Young Children Treated In U.S. Emergency Departments: 1995–2015
The number of children in the United States who swallowed coins, toys, and other small objects nearly doubled (91.5% from 9.5 per 10,000 children in 1995 to 18 in 2015), according to an article published on April 10, 2019 in the journal *Pediatrics*. Some objects can cause serious harm when ingested, and possibly even death. Overall, boys more frequently ingested foreign bodies (52.9%), as did children one year of age (21.3%). Most children were able to be discharged after their suspected ingestion (89.7%). Among the types of objects ingested, coins were the most frequent (61.7%). toys (10.3%), jewelry (7.0%), and batteries (6.8%) followed thereafter. The rates of ingestion of those products also increased significantly over the 21-year period. Across all age groups, the most frequently ingested coin was a penny (65.9%). Button batteries were the most common kind of batteries ingested (85.9%). Small and flat objects, they can damage or even puncture the walls of the esophagus if they become stuck.

HEALTH TECHNOLOGY CORNER

Morning Exercise Is Better Than Evening Exercise Except When It Is Not
Exercise is considered an effective lifestyle intervention for the prevention and mitigation of various diseases. One group of researchers investigated whether the time of day and circadian clock affect exercise performance and related metabolic pathways in mice and humans. They found that exercise performance is better in the evening than in the morning hours, thereby potentially optimizing health benefits. Meanwhile, a different set of investigators observed a more robust metabolic impact of exercise in the morning (beginning of active phase) than at night (beginning of rest phase), resulting in a higher utilization of carbohydrates and ketone bodies, together with the degradation of lipids and amino acids. Both studies were published April 18, 2019 in the journal *Cell Metabolism*. While the results may not lead to firm conclusions pertaining to humans, they possibly could have implications for any mice that have an opportunity to exercise regularly on treadmills, which relates to how the research was conducted.

Using Voice Analysis To Evaluate And Predict Human Behaviors And Identify Health Risks
An Israeli company called VoiceSense is taking advantage of the plethora of devices that capture human speech, such as mobile phones and digital assistants in homes. Voice-analysis research is capturing individual tones, speed, emphases, and pauses, and applying machine learning to make predictions. Feeding the data to an algorithm, over time it learns to pick up subtle speaking signs that might indicate someone who experiences anxiety. Mental and behavioral health issues often prove to be difficult to monitor effectively. For example, signs and symptoms can creep up on individuals who experience depression before they realize that they might need help. Although using voice to identify anxiety, depression, and specific conditions such as Parkinson’s disease or post-traumatic stress disorder (PTSD) still is in the early stages, researchers aim to produce a sensor that can monitor and alert a patient to such problems in order to facilitate earlier intervention.
AVAILABLE RESOURCES ACCESSIBLE ELECTRONICALLY

Hospitals’ Use Of Electronic Health Records Data, 2015-2017

The Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009 helped to advance the adoption and meaningful use of electronic health records (EHRs). Currently, more than 95% of hospitals possess an EHR. With this widespread adoption of the technology, policy is now shifting towards the use of EHR data, which can improve patient care by giving providers access to evidence-based tools that assist with decision making and facilitating clinical practice by automating and streamlining provider workflow. EHR data are used most commonly by hospitals to support quality improvement (82%), monitor patient safety (81%), and measure organization performance (77%). Hospitals with the capability to send, find, receive, or integrate external patient data were twice as likely to use their EHR data compared to hospitals that did not engage in these domains of interoperability. A data brief from The Office of the National Coordinator for Health Information Technology employs data from the American Hospital Association Information Technology Survey to describe trends in the use of EHR data among non-federal acute care hospitals from 2015 to 2017. EHR data are defined as a set of 10 measures that describe hospital processes for leveraging information within their EHR to inform clinical practice. The data brief also presents variation in the use of this data by hospital characteristics and over time. It can be obtained at https://www.healthit.gov/sites/default/files/page/2019-04/AHAEHRUseDataBrief.pdf.

Care Coordination

Care coordination is a methodical approach to care that facilitates better communication between and among individuals, family caregivers, and service providers. There has been significant emphasis in the last several years on care coordination’s role in supporting older adults and in reaching the key aims of health care reform, namely improved patient outcomes, enhanced care experience, reduced costs, reduced provider burnout, and equity in outcomes. A new issue brief provides updates to a 2013 care coordination issue brief developed by Eldercare Workforce Alliance (EWA) and the National Coalition on Care Coordination (N3C). It includes a synthesis of diverse strategies in use and a vision for how services could be improved. Care coordination should be happening wherever and whenever care is provided. Efforts may be staffed within various settings: office-based primary care teams, house call programs, specialty care teams (such as oncology), hospitals (often staffed by discharge planners or transitional care coordinators), skilled nursing facilities, hospice and palliative care programs, aging network organizations, and housing programs. The issue brief can be obtained at https://files.constantcontact.com/1d4d25d0101/c677eb93-fabb-4d05-9da2-b6dfc4ddd55c.pdf.

Strengthening The Connection Between Health Professions Education And Practice

The National Academies of Sciences, Engineering, and Medicine’s Global Forum on Innovation in Health Professional Education with affiliates of the National Center for Interprofessional Practice and Education held a workshop on November 13 and 14, 2018 in Washington, DC entitled Strengthening the Connection between Health Professions Education and Practice. The purpose was to explore methods and methodology for bridging health professions education and practice in ways that improve information flow between learning and application. The workshop also explored various models of training by bringing together multiple health professions across the education-to-practice continuum. Workshop Proceedings can be obtained at https://www.nap.edu/read/25407/chapter/1#iii.
PER SCIENTIAM AD SAPIENTIAM: SOME KEY STEPS IN THE JOURNEY

The accumulation of knowledge may be viewed as a fundamental stepping stone on the road to wisdom. The professional literature is a source of factual information that over time furnishes essential building blocks in the accumulation of knowledge. Some examples are:

James Watson and Francis Crick in an article published in *Nature* on April 25, 1953 in the brief space of 842 words set in motion a vast panoply of studies that influence achievements to the present day involving the human genome. Their contribution led to sharing a Nobel Prize in 1962. A significant flaw was failing to acknowledge how their understanding of the helical structure of DNA was greatly aided by imagery developed earlier through crystallography by chemist Rosalind Franklin.

Luis Alvarez, a 1968 Nobel Laureate in physics at the University of California, Berkeley, was able to expand his curiosity to the fields of geology and paleontology. His efforts led to an article in the June 6, 1980 issue of *Science* in which he hypothesized how most life on earth was extinguished when a giant asteroid crashed into the planet at a high speed 65 million years ago (since updated to 66 million).

When John Wakefield indicated in a paper that appeared in the *Lancet* on February 28, 1998 that MMR vaccine can lead to the onset of autism and other conditions, he inspired a refusal among some parents that exists to the present day to have their children immunized. His assertions were proven false and the manuscript later was retracted in February 2004 by the publisher, but its effects still manage to influence opposition to interventions designed to prevent the occurrence of several infectious diseases.

When viewers stare at the sky, the experience may conjure up thoughts about the possible existence of life on other planets. Sam Levin and co-authors speculated in the February 2019 issue of the *International Journal of Astrobiology* how evolutionary theory can be used to make predictions about aliens. They even contemplated the possibility someday of discovering a bizarre looking alien called an “Octomite”

PLACING A MAN ON THE MOON AND SOME RELATED MUSINGS

When Neil Armstrong planted his large boots on the surface of the moon in July 1969, one is stimulated to wonder if he could have foreseen that the next thing to soar extraordinarily high would be rhetoric from elected officials in Washington, DC who subsequently would declare to impressive effect that if we can place a man on the moon, then we should be able to cure cancer, eliminate bed bug infestation, and achieve other feats of daring do.

Just as a major national initiative led to reaching the moon, today’s interplanetary dreams include long-duration missions that will take humans to Mars and beyond by public and private entities in the 2020s and 2030s. According to a study described in the April 12, 2019 issue of the journal *Science*, however, comprehensive studies are needed to assess the impact of long-duration spaceflight on the human body, brain, and overall physiology. To assess the health effects of long-duration spaceflight, one identical twin astronaut was monitored before, during, and after a one-year mission onboard the International Space Station, the time approximately required for a return journey to Mars.

The other twin served as a genetically matched ground control. Largely unknown risks imposed by microgravity and ionizing radiation (IR) exposure during spaceflight currently limit endeavors to visit Mars. Low-risks include changes in the gastrointestinal microbiome and in body mass. Mid-level risks include alterations in collagen regulation and intravascular fluid management. Genomic instability, assessed by chromosomal aberrations, potentially represents a higher risk because it confers a prospect of developing cancer. Structural abnormalities observed in the chromosomes of the traveling twin are typical of IR exposure. Other severe biological effects could relate to microgravity, causing a headward fluid shift and pronounced changes in vascular physiology (e.g., upper body distended arteries and veins).

Nonetheless, perhaps there are many valuable lessons that may be learned from space adventures that will accrue to the advantage of earth-bound inhabitants who will benefit in ways involving their health.