TRENDS

Association of Schools Advancing Health Professions

NOVEMBER 2019
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TECHNOLOGICAL IMPERATIVE CHALLENGES

A technological imperative is just one of many conceptual tools (e.g., economic, preventive, and epidemiological) that offer a convenient framework for considering the health care realm. Readers of Victor Hugo’s novel Notre-Dame de Paris may recall his vivid characterization of the hunchback Quasimodo. It is less likely, however, that there will be any similar recollection of a depiction in the book of cathedral archdeacon Claude Frollo, whose famous slogan was “Ceci tuera cela” (This will kill that), which occurred to him as he touches a printed book while glancing nostalgically at the church towers. “This” (signifies the book), while “that” (represents the medieval cathedral and the entire world it symbolizes).

What Frollo had in mind is the disruptive potential of technological innovations. The invention of the printing press meant that the flock of spiritual followers no longer would have to rely exclusively on clerical proclamations to discover and interpret information, which heretofore would have remained unknown to them. As noted in the book, Creative Economy and Culture: Challenges, Changes and Futures for the Creative Industries, a chapter on Ceci tuera cela points out that democratic, secular print culture would supersede the authority of the church, along with the system of beliefs and images embodied in the great edifice where action is portrayed.

It appears reasonably clear that a constant array of technological innovations has the potential to have a transformative influence on the health care sphere. Many new developments are intended as improvements. Nonetheless, it is the unintended negative consequences of various changes to the existing order that sometimes prove to be worrisome challenges due to the prospect that technological advances often bring in their wake many impacts of a mixed blessings nature.

February 2019 marked the 10th anniversary of passage of the Health Information Technology for Economic and Clinical Health (HITECH) Act, an effort to accelerate the conversion of physician and hospital paper charts to electronic records, but widespread adoption not always has been accompanied by projected benefits. Instead, EMRs are associated with the onset of physician “burnout” and also in disrupting effective communication patterns between clinicians and their patients. Moreover, a finding reported in the November 2019 issue of the journal Health Affairs indicated that while hospitals gave 95% of discharged patients access to view, download, and transmit their information, only about 10% of those with access used it. Underuse can produce its own train of undesirable side effects.

As more applications are integrated into everyday life, artificial intelligence (AI) is predicted to have a globally transformative influence on economic and social structures similar to the effect that other general-purpose technologies, such as electricity have had. A manuscript in the November 2019 issue of the American Journal of Industrial Medicine introduces a cautionary note, however, regarding key issues for occupational safety and health, along with selected implications that include job displacement from automation and management of human-machine interactions. Hence, as technology unfolds, it continues to warrant close scrutiny.
PRESIDENT’S CORNER
BY ASAHP PRESIDENT PHYLLIS KING

A New....

Decade (2020 – 2029)

Association Name (Association of Schools Advancing Health Professions)

President (Phyllis King)

Strategic Plan (2020 – 2025)

I am honored, eager, and ready to serve ASAHP as your new President. Past leadership has positioned the Association well from a staffing, budget, and leadership perspective to enable the Association to sustain effective practices and take on new initiatives that advance and enhance the Association’s mission and vision. Special appreciation goes to Susan Hanrahan and the board for their great work.

The ASAHP Board is holding a strategic planning retreat in January. We will revisit what strategies and initiatives have and are serving the Association well, and what new actions should be taken to meet the needs of the Association in a rapidly changing environment. The outcomes of this retreat will be shared with the membership for feedback and endorsement. We will welcome your volunteerism to support the new plan.

Ongoing activities currently include tweaking the Institutional Profile Survey for administration to institutions in 2020, planning for the 2020 Leadership Development Program (applications are now being accepted for participants), generating publications and presentations on Interprofessional Education, surveillance and engagement in federal and legislative policies and actions affecting health care education, research and practice, advancing the work of the International Task Force and Tri-Alliance to develop a global rehabilitation health worker certification in rehabilitation, and supporting Alpha Eta.

The future of health and health care will likely be driven by digital transformation. Exponential change and innovations in healthcare practice will continue. I invite you to join me in embracing change and designing our destiny. This will require activism, engagement, education, strategy, and partnerships. Together we can do this!

I wish you a safe and joyous holiday season.

Phyllis King

Get to know your President at https://www.linkedin.com/in/phyllis-king-6b12507.

Photos of the Board of Directors can be obtained at http://www.asahp.org/board.
MASS MEDIA FOCUS ON CAPITOL HILL

Recent weeks have involved an enormous amount of attention on Capitol Hill by the mass media, primarily due to events involving an effort to impeach President Donald Trump. Whatever the outcome of an attempt to unseat him as the White House’s occupant, a significant amount of important business continues to be pursued by members of both the Senate and the House of Representatives. Funding for key governmental operations is on temporary hold until disagreements can be resolved about what to fund and for what amounts.

Unable to complete business by the start of a new fiscal year on October 1, a continuing resolution (CR) was used to maintain operations until November 21. Recognizing that much appropriations business remains unfinished, members of both the House and Senate approved a second continuing resolution (CR) to fund the federal government through December 20. President Trump signed it on November 21.

The Patient Protection and Affordable Care Act of 2010 (ACA) resulted in the creation of the Patient-Centered Outcomes Research Institute (PCORI). As an example of that agency’s operations, on November 19 of this year its Board of Governors approved $70 million to fund 21 studies and related projects designed to improve care for health conditions that impose high burdens on patients, their families, and the healthcare system. Eighteen of the awards, totaling about $65 million, will fund studies comparing the most effective ways to treat a range of illnesses and health conditions. Three of these investigations focus on health issues of concern to older adults—two on hearing loss and one on safer prescribing of glucose-lowering drugs for individuals with Type 2 diabetes. Three other studies focus on children’s health issues; two seek to improve treatment of anxiety in children and adolescents; and one seeks to prevent obesity among preschoolers in rural, underserved areas.

Many federal initiatives, such as the Higher Education Act (HEA) and PCORI must be reauthorized at stated intervals to continue operating. Even when they no longer are authorized, there is pressure to enable them to continue functioning because of the essential functions that they perform. Some programs tend to be more vulnerable than others, however, and there always is a risk that an unauthorized entity could be eliminated. For example, the past few decades have involved several attempts to jettison the Agency for Healthcare Research and Quality. A way of reducing such danger is to seek the enactment of reauthorization legislation. A step in that direction was launched on November 19, 2019 with the introduction of S. 2897, a measure to reauthorize PCORI in order to boost research into health care costs.

Even when legislators agree on the importance of existing programs, technical difficulties can obstruct further progress. A case in point is funding for historically black colleges and other minority-serving institutions, which recently expired. Both Senate Republicans and Democrats support reauthorizing $255 million a year, but cannot agree on the best mechanism for doing so. A Republican proposal is to furnish permanent funding by including the measure in reauthorization of the Higher Education Act (HEA), which has not been reauthorized for the past six years. Critics among Democrats object to holding this form of support as hostage in a much larger bill that is not destined to go anywhere soon because of its complex nature.

2020-2021 ASSOCIATION CALENDAR OF EVENTS

January 28-29, 2020—Strategic Planning Workshop in Clearwater Beach, FL

October 26-30, 2020—ASAHP Annual Conference in Long Beach, CA

October 20-22, 2021—ASAHP Annual Conference in Long Beach, CA
HEALTH REFORM DEVELOPMENTS

Political campaigns for elected office can be exhaustive affairs for voters, particularly when they occur in months and even more than one year in advance of an election. A more optimistic view of the matter suggests, however, that these contests are enormously valuable in shedding light on the nature of important social issues and how best to address them.

Health care represents close to 20% of the U.S. economy, the largest in the world. Even when healthy, individuals want to know they are protected to a great extent from the ravages of illness and disease by being able to have insurance coverage. In its simplest form, they want to derive comfort from knowing that cost will not inhibit them from obtaining the care that they need when they need it from the providers they wish to furnish treatment.

Presently, several candidates are competing to determine which one will secure the nomination for the presidency in 2020. Rightfully so, they focus much of their potential electability in the eyes of voters on how they plan to address health care issues in this country. Proponents of a Medicare For All initiative promise to offer an extensive range of benefits by the government at no cost to patients. Their appeals differ on the basis of details, such as the time needed to implement the new program and how to pay for it. Other candidates stress the need to maintain a system of private insurance coverage.

As debates continue to unfold, policy analysts who support as well as those who oppose such proposals weigh in with their respective critiques of what is being touted as an overhaul of a a remarkably complex system. An advantage of their doing so is that a clearer picture emerges of whether ideas currently being proposed will represent either an improved or perhaps even a worse future arrangement.

Hospital Compare Data On Quality

November 4, 2019 began a 30-day preview period for hospitals to see the data that will be reported publicly on Hospital Compare next year. As part of the Inpatient Psychiatric Facility Quality Reporting (IPFQR), Hospital Inpatient Quality Reporting (IQR), Hospital Outpatient Quality Reporting (OQR), and Prospective Payment System (PPS)-Exempt Cancer Hospitals Quality Reporting (PCHQR) programs, hospitals have 30 days to preview their data prior to public reporting on Hospital Compare. As part of this preview, hospitals (excluding cancer hospitals) also will see an updated Overall Hospital Quality Star Rating that publicly will be reported on Hospital Compare next year.

Hospital Price Disclosure Rule

On November 15, 2019, the Centers for Medicare & Medicaid Services (CMS) finalized policies that follow directives in President Trump’s Executive Order, entitled “Improving Price and Quality Transparency in American Healthcare to Put Patients First,” that lay the foundation for a patient-driven healthcare system by making prices for items and services provided by all hospitals in the United States more transparent for patients so that they can be more informed about what they might pay for hospital items and services.

CMS is finalizing the proposal to define hospital “items and services” to mean all items and services, including individual items and services and service packages, that could be provided by a hospital to a patient in connection with an inpatient admission or an outpatient department visit for which the hospital has established a standard charge. Examples of these items and services would be supplies, procedures, room and board, use of the facility and other items (generally described as facilities fees), services of employed physicians and non-physician practitioners (generally reflected as professional charges), and any other items or services for which a hospital has established a standard charge.

It is highly likely that the hospital industry will mount a legal challenge to the imposition of this rule. At issue is a requirement that hospitals make public the rates they negotiate with insurers for all services.
DEVELOPMENTS IN HIGHER EDUCATION

November 20, 2019 marked the occasion for the release of data on first-year earnings of college graduates according to the academic programs in which they matriculated that are broken down for the first time by program level. Derived from federal tax data, information can be obtained for more than 40,000 programs, showing that median debt exceeded median first-year earnings by more than $1,000 for 6,520 of them.

A dollars and cents analysis should be of value as families decide how much they are willing to invest in programs that ultimately could lead to financial outcomes commensurate with the amount of money spent to obtain proper academic credentials needed for entry into the employment market. A potential downside is that decisions will be made that displace passion in order to acquire more earthly gains in the form of future salaries. A job provides one kind of satisfaction while having a passion for a particular field produces a feeling of satiety and self-fulfillment of a quite different nature. Students and their families must cope with the difficulty of deciding whether to pursue academic preparation in a field that one loves, which may not pay well later one, for an alternative that may be much less interesting, but substantially more remunerative.

Student Assistance, Recognition Of Accrediting Agencies, And State Agency Procedures

The Secretary of the U.S. Department of Education on November 1, 2019 amended regulations governing the recognition of accrediting agencies, certain student assistance general provisions, and institutional eligibility, as well as making various technical corrections. The revised regulations continue the emphasis on accountability that has been characterizing federal involvement in accreditation, and providing additional opportunity for accreditation to embrace innovation, along with some streamlining of federal recognition (the periodic review of accreditation). Revised regulations addressing accountability: (1) Increase expectations by USDE concerning student achievement through the collection and analysis of key data and indicators, including institution’s or program’s performance and measures of student achievement; (2) Require more transparency on regional accreditor websites regarding the states in which the organizations operate; (3) Mandate institutional disclosure to accreditors of any law enforcement actions or prosecutions that lead to adverse action; and (4) Protect students through enhanced institutional disclosure requirements about whether programs lead to licensure or qualification to sit for a licensing exam.

Revised regulations addressing innovation: (1) Provide more flexibility for innovation for institutions and accrediting organizations by encouraging accreditors to establish different methods of monitoring institutional success and provide opportunities for experimentation; (2) Open the door to student aid for non-institutional educational offerings from colleges and universities, including partnerships with alternative providers; (3) Provide a simpler path for new accrediting organizations to gain recognition to give priority to student needs and outcomes rather than traditional measurements; and (4) Enable more dual enrollment opportunities through flexibility in standards allowing high school teachers in certain circumstances to teach these courses.

State Authorization of Distance and Correspondence Education regulations also have been updated and streamlined. The revisions make clear an institution’s responsibilities and the role of State reciprocity agreements while ensuring students have the information they need to make informed decisions. States that join a reciprocity agreement can no longer layer additional State higher education authorization requirements on institutions that participate but can continue to apply other State laws and regulations that apply to all entities doing business in a State. The final regulations will provide students with more options to pursue a higher education credential of value, transfer credits between institutions, and qualify for career advancement.

Most provisions in the final rule are scheduled to take effect on July 1, 2020. Sections that include State Authorization were effective November 1, 2019. Sections that modify the timeline that accrediting organizations are to follow to become federally recognized will be effective on July 1, 2021.
QUICK STAT (SHORT, TIMELY, AND TOPICAL)

Adolescents’ Engagement With Unhealthy Food And Beverage Brands On Social Media
According to an article in the latest issue (March 2019) of the journal Appetite, which still is in progress, 70% of adolescents reported engaging with any food/beverage brands on social media and 55% engaged with 5 or more brands. Non-Hispanic Black and less-acculturated Hispanic adolescents were more likely than non-Hispanic White adolescents to engage with brands. Approximately one-half reported engaging with brands of fast food (54% of participants), sugary drinks (50%), candy (46%), and snacks (45%), while just 7% reported engaging with all other categories of food/beverage brands. Watching television more than 2 hours-per-day was associated with any brand engagement; while using other screens more than 2 hours-per-day was associated with following 5 or more brands. The study surveyed U.S. teens in the age bracket 13-17 about their engagement (liking, sharing, or following) with food and beverage brands on social media, such as Facebook; their time spent watching TV and other screens (cellphones); and demographic characteristics.

Emergency Department Visits For Sport And Recreational Activity Injuries
National Health Statistics Reports on November 15, 2019 indicates that during 2010–2016, approximately 2.7 million annual ED visits for sports injuries were made by patients aged 5–24 years. The top five most frequent activities that caused ED visits for sports injuries were football (14.1%), basketball (12.5%), pedal cycling (9.9%), soccer (7.1%), and ice or roller skating or skateboarding (6.9%). Visits caused by playing football and basketball accounted for a higher percentage of visits by males than females (20.2% compared with 2.2%, and 14.3% compared with 8.9%, respectively), whereas visits caused by gymnastics and cheerleading accounted for a higher percentage of visits by females (11.8% compared with 2.1%). Visits for injuries to the upper extremities decreased with increasing age (37.1% for those aged 5–9 to 27.4% for those aged 20–24), whereas visits for injuries to the lower extremities increased with increasing age (16.2%) for those aged 5–9 to 41.0% for those aged 20–24).

HEALTH TECHNOLOGY CORNER

3D Bioprinting Of A Vascularized And Perfusable Skin Graft Using Human Keratinocytes
Researchers at Rensselaer Polytechnic Institute have developed a way to 3D print living skin, complete with blood vessels. The advancement, published online in the journal Tissue Engineering Part A on November 1, 2019 is considered a significant step toward creating grafts that are more like the skin that human bodies produce naturally. Presently, whatever is available as a clinical product is similar to a fancy Band-Aid, according to investigators participating in the study, because although it may provide some accelerated wound healing, it eventually just falls off and never really integrates with the host cells. A significant barrier to that integration has been the absence of a functioning vascular system in the skin grafts. More work will need to be done to address the challenges associated with burn patients, which include the loss of nerve and vascular endings. The grafts this study’s team has created bring researchers closer to helping individuals with more discrete issues, such as diabetic or pressure ulcers.

Jointly Optimized Microscope Hardware For Accurate Image Classification
Since its invention, the microscope has been optimized for interpretation by a human observer. With the recent development of deep learning algorithms for automated image analysis, there now is a clear need to re-design the microscope’s hardware for specific interpretation tasks. To increase the speed and accuracy of automated image classification, according to an article published on December 1, 2019 in the journal Biomedical Optics Express, engineers at Duke University present a method to co-optimize how a sample is illuminated in a microscope, along with a pipeline to classify automatically the resulting image, using a deep neural network. They demonstrate how their learned sensing approach for illumination design automatically can identify malaria-infected cells with up to 5-10% greater accuracy than standard and alternative microscope lighting designs and show how the new procedure can translate across different experimental setups while maintaining high accuracy.
AVAILABLE RESOURCES ACCESSIBLE ELECTRONICALLY

Dialogue About The Workforce For Population Health Improvement

The Roundtable on Population Health Improvement of the National Academies of Sciences, Engineering, and Medicine on March 21, 2019 convened a one-day workshop to explore the broad and multidisciplinary nature of the population health workforce. The event included speakers from professional and accrediting organizations, community health workers, supervisors, and policy experts and featured national and local examples of cross-sectoral collaboration to advance population health. The main objectives of the workshop were to explore the following topics that resulted from the Statement of Task for the workshop: (1) Facilitating a population health orientation/perspective among public health and health care leaders and professionals; (2) Framing the work of personnel such as community health workers (CHWs), health navigators, and peer-to-peer chronic disease management educators within the context of population health; and (3) Leveraging the competencies of public and private sector workforces, such as education, transportation, and planning, that are working to include a “health in all policies,” community livability, or well-being orientation in their activities. Workshop proceedings can be obtained at https://www.nap.edu/read/25545/chapter/1.

Economic Consequences Of Millennial Health

A new report by Moody’s Analytics revealed the serious impact millennials’ health could have on the U.S. economy. Compared to when Generation X was the same age, millennials are projected to experience slower economic growth and pay more in health care costs over the next decade, which could have a crippling effect on the economy. Two different scenarios of millennial health and what the impact may be over the next decade are described in the study. If millennial health continues to decline and goes unaddressed over the next 10 years, the report predicts that in comparison to Gen Xers at the same age, millennials may experience some of the following outcomes: Health care treatment costs could rise as much as 33%; Mortality rates could rise as much as 40%; and Millennials’ annual income may, on average, be reduced by as much as $4,500 per person, as poor health will likely lead to job loss or reduced working hours. Moody’s Analytics analyzed the Blue Cross Blue Shield Health IndexSM, which quantifies more than 300 health conditions to identify which may affect Americans’ longevity and quality of life. It is powered by annual data from more than 41 million commercially insured Blue Cross and Blue Shield (BCBS) members nationwide. The report can be obtained at https://www.bcbs.com/sites/default/files/file-attachments/health-of-america-report/HOA-Moodys-Millennial-10-30.pdf.

Driving Toward Age-Friendly Care For The Future

The concept of age-friendly health systems resonates with most older patients and their caregivers, especially patients with multiple chronic conditions, according to a survey by WebMD released by the John A. Hartford Foundation. In general, caregivers perceived the older adults they cared for as having more chronic conditions. Age-friendly health systems focus on prioritizing the “4Ms” of care: what matters to patients; promoting mobility; ensuring medications do not interfere with quality of life; and treating dementias, depression and other mentation-associated conditions. Age-friendly health systems require attention to what matters to older individuals and their caregivers in order to ensure high-value care resulting in consumer satisfaction. The good news is that 87% of the more than 2,700 respondents to this survey of older adults and family caregivers report satisfaction with the care they have received in the past 12 months. This high satisfaction, however, has some caveats. For instance, it decreases as a patient’s health becomes more complicated and the number of health conditions increase. Survey results can be obtained at https://www.webmd.com/healthy-aging/age-health-care-survey.
WHY AN INSECT APOCALYPSE MATTERS

In the grand cosmological scheme, insects although being relatively small and occasionally quite annoying, it is highly unlikely that the human species could survive without them. In marked contrast, the Anthropocene (the current geological age, viewed as the period during which human activity has been the dominant influence on climate and the environment) may be characterized as placing a much larger focus in the form of conservation efforts and public attention on big, charismatic mammals and birds, such as tigers, pandas, and penguins. Nevertheless, the bulk of animal life, whether measured by biomass, numerical abundance, or numbers of species, consists of invertebrates such as insects. According to a paper appearing in the October 7, 2019 issue of the journal Current Biology, recent studies from Germany and Puerto Rico suggest that insects may be in a state of catastrophic population collapse. German data describe a 76% decline in biomass over 26 years, while the Puerto Rican study estimates a decline of between 75% and 98% over 35 years. Corroborative evidence suggests that such declines are not isolated. Causes are much debated, but almost certainly include habitat loss, chronic exposure to pesticides, and climate change. The consequences are clear. Insects are integral to every terrestrial food web, being food for numerous birds, bats, reptiles, amphibians, and fish, and performing vital roles such as pollination, pest control, and nutrient recycling. Also, terrestrial and freshwater ecosystems will collapse without insects.

Occasionally, this ASAHP newsletter has served as a vehicle for demonstrating how humans stand to benefit from research involving other species. An article published on October 22, 2019 in the journal eLIFE discusses, for example, how ants, despite their behavioral simplicity, have managed the tour de force of avoiding the formation of traffic jams at high density. At the macroscopic level, ant traffic is best described by a two-phase flow function. At low densities there is a clear linear relationship between ant density and the flow, while at large density, the flow remains constant and no congestion occurs. From a microscopic perspective, the individual tracking of ants under varying densities revealed that ants adjust their speed and avoid time consuming interactions at large densities. The results point to strategies by which ant colonies solve the main challenge of transportation by self-regulating their behavior. Humans and ants are among the few species that engage in two-way traffic. Maintaining a smooth and efficient traffic flow while avoiding collisions is challenging for humans while ants seem to be masters of traffic management. They efficiently can move back and forth between their nests and food without overtaking or passing each other, forming a steady stream of traffic. Studying ant traffic management has been a source of inspiration for scientists working with large groups of interacting particles in many fields, including molecular biology, statistical physics, and telecommunications. It also has relevance for managing human traffic, particularly as scientists and engineers develop autonomous vehicles that might be programmed to work together cooperatively as ants.

HOUSING DISCRIMINATION AND RACIAL CANCER DISPARITIES

In areas with greater mortgage discrimination, the gap between black and white cancer mortality rates was larger (correlation coefficient \( r = 0.32; P = .001 \)). This relationship persisted in sex-specific analyses (males, \( r = 0.37; P < .001 \); females, \( r = 0.23; P = .02 \)) and in models controlling for confounders. As described in the November 1, 2019 issue of the journal Cancer, mortgage discrimination is associated with larger black-to-white cancer mortality disparities. Some areas are exceptions to this trend. Examination of these exceptions and of policies related to housing discrimination may offer novel strategies for explaining and eliminating cancer disparities. Racial cancer disparities represent a substantial proportion of the overall mortality disparity between blacks and whites and are a major consideration in the provision of clinical care and public health practice and policy. In 2010, cancer accounted for 17% of the life-expectancy gap between black and white populations, second only to heart disease for women, and, for men, third, also after homicide. A higher chance of mortgage application denial for black applicants tends to reduce black home ownership and increase the likelihood of renting. As opposed to being able to purchase, renting results in a reduced ability to accumulate home equity—a primary source of wealth—which may limit resources available to offset the financial burden of cancer.