Message from the Chairman

As Chairman of the Asian Council on Health and Education (ACHE), I am pleased to present the fourteenth issue of the Newsletter of ACHE to all our colleagues not only in the health and education sectors, but in other relevant industries as well.

This issue highlights the trends, the latest news and interesting reports on health and education in the Asia-Pacific region. I hope that you will find the articles included in this Newsletter of great value, and look forward to your contribution to the Newsletter in the future.

As many of you may know, this Council has been a valuable platform for information exchange and networking for all representatives from the region's health and education industries. Therefore, all CACCI members are encouraged to take advantage of the Council and the Newsletter as channels to voice their opinions and viewpoints.

My Best Wishes

Arash Anissian, MD
Chairman
Asian Council on Health and Education

Health care must be affordable and accessible, but also high quality

By Valerie Shelly, Susann Roth, Kirthi Ramesh

The concept of quality in universal health coverage is now being addressed in some countries. Photo: ADB

Universal health coverage must be high quality to improve patients' health outcomes

Shakina lives in a developing country. Although there is a public hospital near her home, she chooses to travel four hours by bus to go to a well-liked, private hospital in the city. She has heard from her friends and neighbors that they were pleased with the care they received at this hospital and to her they seem healthier and happier when they get back. She has heard bad stories from other friends who went to the closer, more affordable, public hospital - they returned home sicker than when they left.

Shakina's story reminds us that all people, regardless of socioeconomic class and means, want high-quality healthcare and that they will often choose higher quality care even if it is more expensive and less accessible.

Under the World's Health Organization's definition of universal health coverage, all people and communities can use the promotive, preventive, curative, rehabilitative and palliative health services they need, of sufficient quality to be effective, while also ensuring that the use of these services does not expose the user to financial hardship.

The concept of quality has only recently been built into universal health coverage policies and has not yet been sufficiently addressed. If health investments are to lead to the emergence of more productive and equitable societies and economies, countries need to focus on improving quality.

The three priorities of health care delivery – cost, quality, and access – need not be at odds with each other. Greater use of health care facilities due to lower costs and shorter distances to travel will only lead to better health outcomes if quality of care is guaranteed. Therefore, we must make high-quality healthcare services affordable and accessible in order to effectively implement universal health coverage. Simply providing

access for more people to lower quality care won't achieve universal health coverage.

Poor-quality care is wasteful, costly, and dangerous. It is estimated that between 5.7 million and 8.4 million people die each year in low- and middle-income countries due to poor-quality care. In other words, in many countries, a person has a greater chance of dying from receiving poor quality care than from going without care entirely.

In addition to the human cost, poor quality also has an economic cost. Poor productivity and wastefulness, resulting from poor quality of health care, costs these countries around $1.4 trillion to $1.6 trillion per year. Poor-quality care proves costly for societies when unhealthy adults are less productive at work and unhealthy children cannot perform well at school.

High-quality care is cost-effective and leads to an earlier and higher return on investment. Approximately 15% of hospital expenditures in high-income countries are used to correct preventable complications of care and patient harm. This is a price that is an inconvenience to high-income economies and completely unaffordable for low- to middle-income countries. In addition, poor-quality care affects the poor and vulnerable disproportionately. While investing in higher quality health systems costs more upfront, costs are lowered over the long-term through more efficient workflow; fewer medical errors and preventable complications; elimination of ineffective treatments and procedures; fewer duplicated services; and less waste overall.

Quality health services make health systems resilient. They are prepared for anything, can maintain core functions amongst changing situations, and are informed by lessons learned, constantly adapting and improving. Even in a crisis during times of political unrest, or during an epidemic, resilient health systems can rely on their basic processes to deliver high-quality services.

Secondly, quality health services make health systems trustworthy and transparent. Poor- quality care, even when taken to the far reaches of the world, erodes trust, puts patients at risk, and is completely unsustainable. High-quality care builds trust in the health system, nourishes a culture of respect towards individuals, improves patient safety and produces better patient outcomes. A truly transparent healthcare organization is open and honest about successes as well as failures, ensuring care is based best practice clinical protocols, building complete trust and long-lasting relationships with their patients.

Finally, quality health services make health systems patient-centered. A central feature of quality health services is that they are patient-centered and give great cons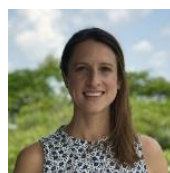ideration to the patient's individual needs, culture, and beliefs. Patient-centered care is vital to the implementation of universal health coverage, as we know that people who are engaged in their own care suffer fewer complications and enjoy better health and overall happiness. A central aspect to achieving patient-centered care is seeking feedback on patients' care experience.

Improving quality requires a holistic approach. Countries that want to improve quality of care need to consider interventions across different domains (leadership, information, patient and population engagement, regulation and standards, organizational capacity, models of care) across different levels of the health care system. Building a national strategy for quality is an important first step to agree on a clear set of goals, define suitable interventions and tools and align different stakeholders' efforts to improve quality of care.

Shakina chose to travel a long distance for high-quality care instead of taking her chances on accessible, poor-quality care. We need to make it easier for Shakina to receive the high-quality care she deserves, at a reasonable distance from her home, from a skilled health professional that puts her at the center of her care. By doing this, we will see that in the end, high-quality care really does pay off.

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Personalized Medicine Is About to Go Mainstream With Big Implications for Health Care

By Jane Lindborg Researcher at PreScouter

The idea that we all could lead healthier, longer lives with the advent of personalized health care is a testament to the ingenuity and evolution of medicine.

That being said, cost, regulations and ethical issues are some of the main challenges still to overcome.

Disrupting the Drug Manufacturing Process

According to a recent white paper by PreScouter, *Personalized Medicine: Moving From Average to Personal*, personalized medicine will not only change the way patients are diagnosed and treated, but it will also disrupt current drug manufacturing protocols.

Large-batch production may become a thing of the past, and that's not necessarily a bad thing. Single-use technologies that produce small batches of drugs are safe and effective and don't have the financial burden of fixed capital investments and constant equipment upkeep.

On the other hand, individualized drug therapies will disrupt many of the automated processes that have been tested and validated under quality control requirements.

This could mean a shift in manufacturing to manual labor, which would require new production facilities and altered supply-chain logistics. Many current personalized treatments involve manufacturing products using a patient's own cells. For example, chimeric antigen receptor (CAR) T-cell therapy necessitates the extraction of a patient's T-cells, genetic reprogramming of those T-cells so they can fight cancer cells and reinfusion back into the patient.
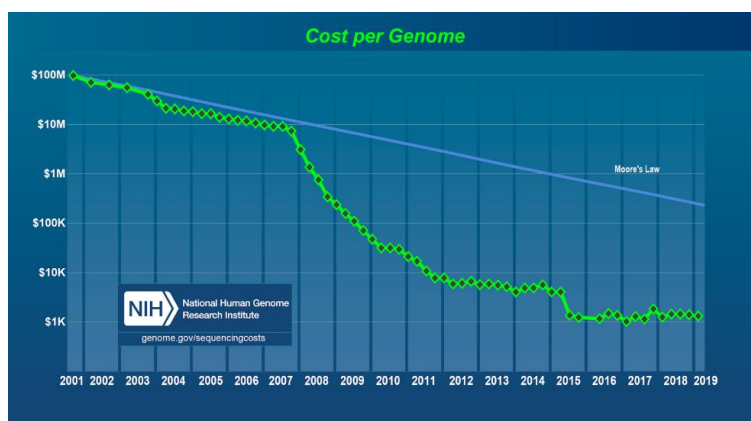

A doctor speaks with a patient. Individualized drug therapies will disrupt many of the automated processes that have been tested and validated under quality control requirements. Photo by Adam Berry/Getty Images

This type of therapy is a far cry from the "simple" manufacturing of a drug in-house and exporting it to

Source: Personalized Medicine: Moving From Average to Personal, PreScouter

facilities that directly market to patients. Instead, it is a complex arrangement of appropriate shipping conditions, quality control and safety requirements. And this is all for a single patient. How personalized medicine will ultimately affect manufacturing and distribution is unclear, but the industry will need to adapt to fulfill individualized production needs.

How Will Personalized Medicine Affect Health Care Costs?

Personalized medicine's effect on health care costs is also not clear. It seems likely that specialized treatments made for individuals or small groups of people would increase costs because everyone would require individualized drug production.

On the flip side, genomic sequencing, which creates a roadmap for precision treatment decisions, is not as costly as it was 15 years ago and informed drug targeting could reduce the overall cost of health care by addressing the underlying causes immediately. Perhaps it will be most interesting to observe how insurance companies react to this treatment paradigm shift.

Historically, health insurance companies have taken a conservative approach to coverage of genetic testing, which at this point is the primary foundation for identifying individual treatment strategies.
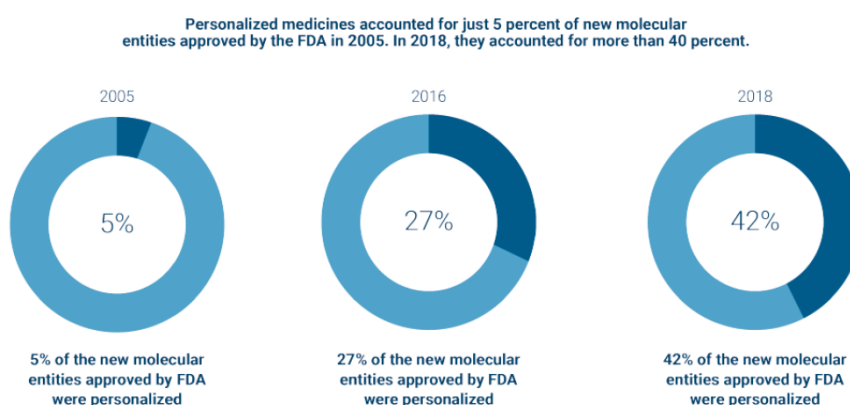
To circumvent this problem, U.S. lawmakers on both sides of the aisle are drafting legislation like the Advancing Access to Precision Medicine Act, which would allow states to apply for exceptions to the federal medical assistance percentage rate to cover whole genome sequencing clinical services for children whose diseases may have an underlying genetic component.

Rise in FDA Approval for Personalized Medicine

Genetic and genomic sequencing companies are also doing their part in making personalized medicine more palatable to insurance companies by offering to pick up part of the tab.

Under a contract between Harvard Pilgrim Health Care and Illumina, Harvard Pilgrim will cover — to a predetermined limit — prenatal genetic testing for women under the age of 35 with average-risk pregnancies, while Illumina, a next-generation genetic testing company, will cover the remaining cost. Partnerships like this may show the utility of genetic testing while potentially reducing the financial burden of lifelong health care for improperly diagnosed and treated conditions.

The number of approved personalized medicines has increased dramatically since 2005.

This consists of both conventional modalities as well as novel approaches; for example, in 2017, the U.S. Food and Drug Administration (FDA) approved the use of CAR T-cell therapy to treat B-cell lymphoma. Despite this rise in approval, some challenges to regulation have arisen.

Personalized Medicine at the FDA: Then and Now
Source: Personalized Medicine: Moving From Average to Personal, PreScouter

Ethical Considerations and Dynamic Consent

Personalized medicine is possible thanks to the thousands of people who have essentially donated their medical information.

Much of the data now stored in biobanks and used to make informed treatment decisions were gathered when personalized medicine was naught but a thought. Potential ethical issues of using this data, where informed consent was given at a time when precision medicine was inconceivable, have been resolved. The language of consent forms was broad and therefore ruled inclusive for modern research questions.

In an age of data compiling and sharing across the academic, industry and health care settings, the most important considerations are patient confidentiality, protection and ownership of information, and proper disposal of materials.

While interdisciplinary collaboration is great for innovation and discovery, it can also confuse the proper channels for information and sample handling. To get a handle on this, patients now have the power to control their information. Dynamic consent requires communication between the patient and the user of the patient's information when the user plans to apply the data to a new project. The patient can deny or allow consent at any point and will always be informed of the manner in which their information is to be used.

But dynamic consent is neither widespread nor a requirement across all biobanks. Overall, there is a lack of consistency in consent requirements and perhaps a need for more strict and pervasive health data protection legislation.

Playing Catch-Up

As is the case with most scientific advancements, the regulatory, social and economic facets must play catch-up with the technology.

Clear and transparent processes and communication will be necessary to ensure that personalized medicine is practiced efficiently and effectively. With the power to address unmet medical needs at the individual level, universal personalized medicine is the goal.

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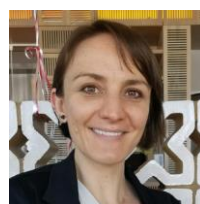
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Brink

Global Traveler lauds Taiwan as top medical tourism destination

Well-trained doctors, cutting-edge technology, access to natural environment make Taiwan attractive

By Huang Tzu-ti

Taiwan has been hailed as an attractive medical tourism destination by American travel magazine Global Traveler.

An article published Tuesday (May 5), "Taiwan: A Hot Spot For Health," said Taiwan has become increasingly popular in Western countries, including the U.S., as a place to seek medical treatment.

The island country boasts state-of-the-art medical equipment and well-trained doctors, many of whom studied in the U.S., the article said, adding that the fact that American citizens are granted 90 days of visa-free sojourn makes it even more appealing.

In addition to affordable common procedures, such as coronary artery bypass grafts, hip replacements, and cosmetic surgery, many hospitals in Taiwan also provide customized service. A bonus for those planning a medical journey is the plethora of natural settings and hot springs across the island, which are excellent for travelers needing relaxation and recuperation following medical treatment, it said.

Shih Chao-huei, director of the Taipei Economic and Cultural Office in Los Angeles, noted that healthcare will be a top priority for people in the post-coronavirus era. This presents an opportunity for Taiwan to promote itself as an ideal destination for medical tourists, wrote Central News Agency.

In April 2020, the Ministry of Foreign Affairs (MOFA) released a short film about a Guamanian who sought medical assistance in Taiwan. Tormented by years of painful spine and hip ailments, he is finally able

Sulfer Valley in Taipei
(Travel Taipei Website, jackykuo0008 photo)

to get his life back on track after receiving surgeries in the country.

Taiwan News

Taiwan-Thailand Medical Technology Collaborating Center to Ease the COVID-19 Pandemic

The Ministry of Science and Technology (MOST) of Taiwan has been promoting the New Southbound Policy and funding local institutions to establish "Science and Technology Innovation Center (STIC)." MOST subsidized Pingtung Christian Hospital to establish the Taiwan-Thailand Medical Tech., Science & Humanities Development Center.

The Center integrates resources from South and Southeast Asian countries and provides several millions of medical supplies to the U.S. and Europe. Cooperating with the Taiwanese corporations in Thailand and Vietnam, the Center utilizes Made-in-Taiwan products to facilitate the supply and demand chain for medical goods

and services through free trade and financial platforms in Cambodia.

The foundation of the integration of the medical supply chain during the coronavirus outbreak is to combine Taiwan's medical advantages and resources from Europe and North America to assist medical talent training and health system development in Southeast Asia. Now, as the western countries are facing the threat of the COVID-19 pandemic, the Health Asia Company, established by the Center, promotes the cooperation between Southeast Asian countries to help the west in order to construct their medical supply chain.

During the COVID-19 outbreak, the team formed by Pingtung Christian Hospital and Healthy Asia Corporation under Dr. S.S. Fang's leadership decided to stay in Phnom Penh to assist Cambodia fighting against the virus, and to take care of overseas Taiwanese. By delivering medicine packs via smart medical platforms in Taiwan and adopting distance medical management devices, the team successfully reduced the demand for in-person clinical visits, and thereby eased the burden of the healthcare system and people's unnecessary panic.

With the support of the district executive, Mr. Fang Ho-Sheng, the Taipei office of the Center in Chung-Ching district built a community pandemic prevention network and created measurement of physiological signals and cloud monitoring solutions. Concurrently, the Center extended the Chung-Ching district project to Jin-yue village of Nan-au Township in Yi-Lan County.

During the Covid-19 pandemic, the Center paused all planned activities with Thailand, Vietnam, Indonesia, Myanmar, and Cambodia. The Healthy Asia Corporation linked up with the Taiwanese licensed medical equipment and medicine traders in Cambodia, formulating a Taiwan-centered supply chain. By utilizing the network in Cambodia, Healthy Asia Corporation built up the connection between Taiwanese overseas business communities to create an information exchange center between Cambodia, Macau and Taiwan.

The Center successfully forged a supply and demand chain, playing a critical role in coordination and quality control. Accomplishing the exports of medical supplies to Europe, the U.S. and several Southeast Asian countries, the Center successfully integrated Taiwan's medical advantages into the supply chain.

Through domestic and international experience exchange and resource integration, the Center facilitated the mechanism of Taiwan and Southeast Asian countries in assisting the west. In the era of post-coronavirus, under the transformation of the global production industry, Cambodia is an emerging country with potential. Therefore, the Center will continue to cooperate with the industry, government and academia of Southeast Asian countries and use the strength of Taiwan's medical, information and communication technology to extend the national demonstration base to Cambodia, helping Cambodia to upgrade technology and strengthen talent training.

CTIMES

Is Coronavirus a Tipping Point for Digital Health on Demand?

By Beth Umland, Director of Research at Mercer US Health & Benefits, Dr. Lorna Friedman, Global Health Leader, Multinational at Mercer, Kate Brown, Center for Health Innovation Leader at Mercer US Health & Benefits

As the coronavirus crisis affects our societies and organizations — prompting critical decisions about business shut-downs, the cancellation of public and corporate events, working from home and greater support for employees — a very practical question arises. Could this be the tipping point for digital health, especially for such recent innovations as telehealth, which allows us to consult directly with health care providers via computer or mobile device?

With social distancing and shelter-in-place now all too familiar concepts, telehealth offerings could well be effective tools in managing the impact of the virus. They can aid in preventing infected patients and people with other health issues from congregating and possibly contracting or passing on the virus.

Significantly, telehealth has never been more widely available, if underutilized. Recent U.S. findings from the National Survey of Employer-Sponsored Health Plans show that while telehealth is a ubiquitous offering among employers, utilization rates remain low, growing slowly from 8% in 2018 to 9% in 2019.

That is very likely to change, now that the coronavirus pandemic is a primary focus of societal and business concern. Importantly, telemedicine might be invaluable for behavioral health — especially if people are quarantined for many weeks and anxiety and depression mount.

Is this a new era of telemedicine and virtual mental health counseling, along with smart apps and sensors to track medications, AI to diagnose medical conditions or augmented reality to assist with pain and stress management? What role do employers play in providing digital health solutions? What do workers want, need and expect? And how can digital health offerings help employers to attract talent and achieve better health outcomes for their people?

To explore these questions, Mercer Marsh Benefits, Mercer and Oliver Wyman conducted a study that examines digital health innovation and the future of health care in the context of employee attitudes and work cultures.

For enterprises, understanding what attracts workers to "health on demand" — and what worries them about it — can mean the difference between leaping ahead or lagging behind in building the energized workforce that will drive sustainable growth and bright futures. The study, which was completed in June 2019, polled 16,564 workers and 1,300 senior decision-makers from seven mature markets (U.S., U.K., Canada, Italy, France, Netherlands and Singapore) and six growth markets (Brazil, China, Colombia, India, Indonesia and Mexico).

Among the key findings is the strong business case for digital health, which, while apparent last year, is even more compelling now. Employers responding to the survey indicated that robust health and well-being programs — enhanced with digital health solutions — are seen as key to attracting and maintaining talent in a competitive labor market, and results suggested that corporate investment in workforce health would grow over the next five years.

Now it seems that digital health solutions may also be important purely from a risk-management perspective. They can help to protect against talent shortages and absenteeism due to infectious disease, sickness or injury that can leave companies without the people to get the job done.

Horizons of Digital Health

Overall, 40% of employers believe that sponsoring or promoting digital health solutions will aid in employee retention, while one-quarter of surveyed workers say they are more likely to remain with an employer who offers digital solutions. The 36% of employees who say it makes no difference may well change their tune as the coronavirus era affects working life. Health is a top-of-mind item for everyone right now; as a result, employees may be more engaged and more willing to change their health behaviors than they normally are. In the U.S. alone, 68% of surveyed employers are likely to invest more in digital health in

the next five years — and that number may be rising quickly in today's climate.

But the horizons of digital health include clouds of complexity that can't be overlooked. The Health on Demand research shows that workers are looking for improved access to high-quality health care that is personal, convenient, affordable and secure — but they recognize the potential downsides. They have concerns about risks associated with digital health care and AI, especially data protection and privacy.

It is important to recognize that while some employees will be more receptive than others to digital health, very few are truly opposed to it. An analysis shows that workers can be divided into four distinct segments based upon their attitudes to health innovations, their

It is important to recognize that while some employees will be more receptive than others to digital health, very few are truly opposed to it.

Photo: Shutterstock

confidence in health solutions sponsored by employers and their likelihood of staying with an employer offering these solutions. Call them the Sign Me Up, Impress Me, Get Me Comfortable, and Not for Me segments.

Sign Me Up, for example, comprises 37% of U.S. workers and is dominated by millennials, who are tech-savvy, more willing to try digital health innovations and less likely to leave employers who offer them. The Impress Me cohort, at 19%, is educated yet not loyal; they are less likely to stay due to digital health offerings yet more willing to try them — but not through their employer.

The largest segment, at 40%, is the Get Me Comfortable group, who skew to Generation X. While they are willing to try digital health solutions and are less likely to leave employers who offer them, they are less confident in employer-sponsored solutions. But only 5% of U.S. workers, those in the Not for Me category — who tend to be older, tech-skeptic employees — are truly unwilling to try digital health.

A Pro-Health Culture

Overall, there is high demand for a pro-health culture. Investments in digital health tools can help demonstrate that employers value health and well-being. This dovetails with the interests of workers, many of whom want their company to create healthy environments.

In addition, employers recognize that there are barriers to health that are tough to get around, like affordable housing and transportation. Practically speaking, a low-income single parent with a two-hour commute has limited options when it comes to caring for their health. Virtual solutions that support self-care or provide easy access to counseling have the potential to address these social determinants.

But the survey revealed some gaps between employer and employee perspectives when it comes to creating a culture of health. A third of U.S. workers — but just over a quarter of employers — see the value of allowing workers time off to see health care professionals or get treatments.

By contrast, nearly half of employers favor incentives to get workers to register for well-being programs, while fewer than three in 10 workers believe this would help them become more engaged. Subsidized nutrition and exercise programs and onsite medical clinics were in the workers' top-five initiatives for promoting greater health engagement.

Given this practical focus, just 17% of workers would like to see a greater promotion of digital health resources, compared with nearly a third of employers. Yet this could change in a time when working from home during a pandemic becomes a new normal and employees grasp the value of digital solutions in a way that has not fully emerged. This suggests that digital solutions could be included as part of an integrated set of initiatives comprehensive enough to address the diversity of worker needs.

From all this, it's clear that digital health cannot be an end in itself. A pro-health environment encompasses a range of options, but it is fair to say that digital health and well-being solutions will be of increasing importance in retaining, engaging and energizing workers and will have a clear role in facilitating personalized health care. When technology — designed around the end user — connects people to better care than they could get otherwise, that is the sweet spot of digital health.

Companies looking to include or expand digital solutions in their health offerings are starting from an encouraging position in which barriers to adoption are generally low and workers' trust in their employers is high.

The survey showed that workers are willing to share health data to receive higher quality, more personalized and convenient care. Most of them trust their employers to keep their personal health information secure. Responsibility falls to employers in developing digital health ecosystems and in putting the right policies and practices in place to protect that trust.

Ultimately, a balance of care is required, and digital health is not a panacea. Health care providers can talk, text, chat, look at pictures of rashes and even listen to heartbeats virtually, but they can't inject a vaccine — or hold a hand — over WiFi. The coronavirus crisis may spark a new era for digital health, yet it is important for business leaders to look beyond the moment at an empowered future of better health on demand.

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Brink

Australians aren't eating enough nuts, and our health is suffering because of it

By Isabelle Lane

From peanuts to macadamias and almonds, there are many nuts to choose from, but only a handful of Australians are getting enough of them in their diets.

Just two per cent of Australians are eating the recommended 30 grams a day of nuts, a University of Wollongong study published in Cambridge's *Public Health Nutrition* journal last month found.

Nuts provide a range of health benefits, but most Australians are missing out. Photo: Getty

Most Australians need to increase their nut consumption six-fold – the equivalent to eating an extra nine kilograms of nuts a year – in order to reap health benefits, the research funded by Nuts for Life found.

The study, which analysed data from the Australian Bureau of Statistics and the National Nutrition and Physical Health Survey, is the first to examine nut consumption among Australians, taking into account nuts eaten whole as well as those in foods such as cereal and muesli bars.

"This is really our first look on a population scale at the amount of nuts that Australians eat, and what it's indicating is that generally we're not really meeting recommendations," said lead researcher Elizabeth Neale, an accredited practising dietitian.

Diets lacking in nuts mean that many Australians are missing out on nutritional and protective health benefits, including improved heart health, reduced risk of diabetes and weight management, she said.

A handful of nuts a day keeps the doctor away

Dietitians recommend people eat 30 grams of nuts a day – about a handful – to gain protective health benefits.

The recommended daily intake of nuts is associated with a 29 per cent reduced risk of heart disease, a 15 per cent reduced risk of cancer, a 13 per cent reduced risk of type two diabetes, and a 15 per cent reduced risk of death from all causes.

Australians who ate nuts regularly also had higher intakes of key nutrients including fibre, iron, phosphorous, magnesium and vitamin E, the study found.

However, on average Australians ate just 4.6 grams of nuts a day, the study found, while 'nut consumers' ate around 11.6 grams a day.

Around 60 per cent of those surveyed reported not eating any nuts at all.

Nuts should be regularly included in healthy meals and snacks, Dr Neale said.

A handful of nuts a day should be included in healthy meals and snacks. Photo: Getty

To reach the recommended target, Australians will need to go from "infrequent nut consumption, averaging only two to three nuts a day, to their more regular inclusion in healthy meals and snacks, averaging a handful a day", she said.

'Fat phobias' may be preventing people from eating nuts

The reasons Australians are eschewing nuts are not clear, but researchers believe that 'fat phobias' and myths surrounding the foodstuff may be to blame.

"Nuts are energy-dense foods and both consumers and health professionals continue to raise concerns that eating nuts could cause weight gain," Dr Neale said.

There is no evidence to suggest that eating a moderate amount of nuts leads to weight gain, higher BMI, or waist circumference, Dr Neale said.

"We didn't find an association between nut consumption and having a higher body weight," she said.

But misguided concerns may be preventing people from snacking on nuts, which are rich in protein, good fats and fibre and can help sate hunger and reduce appetite.

"Research spanning 20 years has shown eating nuts does not cause weight gain. Rather, regular nut consumption may help with weight management by helping people feel full and encouraging consumption of other healthy foods," Dr Neale said.

The New Daily

Turkey's health infrastructure withstands pandemic

By İhsan Aktaş

A biologist works on samples from test tubes to check if any of them tested positive for coronavirus at a laboratory in Istanbul, Turkey, April 14, 2020. (Reuters Photo)

During the last round of American presidential elections, "Make America Great Again" was the primary motto of Donald Trump's campaign. The economic strength of the U.S. was indisputable, with the U.S. presiding over some of the biggest corporations in the world. Yet, the infrastructure of the country was far from sufficient to respond to the needs of the American people. In this sense, in order to address these great infrastructural issues, Trump's presidential campaign echoed the promises of the first electoral campaign of the Justice and Development Party (AK Party) in 2002.

During its foundational years, the AK Party inherited from the previous Welfare Party (RP) a qualified and experienced political cadre. After meticulously examining Turkey's main issues and prioritizing the Turkish public's primary expectations, the AK Party embarked on resolving long-standing problems by relying on widespread popular support.

Thanks to the political stability ensured by its long tenure, the AK Party has since succeeded in surmounting great problems in terms of the economy and public infrastructure. In this respect, the AK Party especially concentrated on strengthening Turkey's health infrastructure – not only by building hospitals but also by facilitating greater access to health services.

As Turkey's economy continued to grow, public investments in health and transportation infrastructure have grown in tandem. Although the AK Party's share of the votes was around 50%, our researches at the GENAR research institute demonstrated that 70% of the people supported the infrastructural investments of the AK Party.

Before the AK Party's rise to power, Turkey's health

sector was insufficient to respond to the needs of a rapidly growing and urbanizing population. Both the quantity and quality of hospitals and health care providers were poor. People lacking social security were held hostage until they paid their hospital fees. Indeed, one of the first achievements of President Recep Tayyip Erdoğan in the health sector was a resolution to end the trials of "hostage patients" through legislation on social security.

The AK Party's investments in the health sector were immediately supported by a great majority of the people. Inspired by such widespread public support, the AK Party embarked upon a massive campaign of building high-tech hospitals throughout the country.

Meanwhile, the AK Party addressed the problems in social security by not only reducing the price of health services and drugs but also extending the scope of social security to involve everyone from villagers and farmers to blue-collar workers and the unemployed.

In fact, the Health Ministry has always taken a great share in the national budget and made large employment-intensive investments. In this respect, the issue of "city hospitals" had become one of the main sources of political opposition against the government. These massive hospitals have been run and operated as a public-private hybrid partnership based on the build-operate-transfer model.

When the coronavirus pandemic suddenly emerged, health infrastructure climbed to the very top of most countries' political agenda. In Italy, France, Spain and the U.K., the health sectors were overwhelmed by the coronavirus outbreak.

Confronting the coronavirus pandemic with strong health infrastructure, Turkey has succeeded in managing the crisis. Thanks to 17 years of public investments in the health sector, Turkey has emerged prepared for one of the greatest crises in recent history.

Although the government has since summoned the aid of private hospitals in the national struggle against the pandemic, these have joined to treat those affected completely free of charge.

A chief physician attributes Turkey's success in coping with the crisis of coronavirus to five factors: an efficient and punctual system of diagnosis, strong support for radiology, the successful management of treatment, strong health infrastructure and an all-encompassing social security system.

While the health sectors of some of the strongest economies in the world have faltered in the face of the coronavirus pandemic, Turkey stands on solid ground.

Daily Sabah

COVID-19 to have 'profound' mental health fallout

By Agence France-Presse (AFP)

Studies into the mental health impact of previous disease outbreaks,
such as the SARS epidemic in the early 2000s, showed a clear increase in suicide rates
(AFP Photo/SEBASTIEN BOZON)

The coronavirus pandemic is likely to have a "profound and pervasive impact" on global mental health as billions struggle to cope with isolated living and anxiety spikes, experts warned on April 16, 2020.

In a paper published in Lancet Psychiatry, a panel of 24 specialists call for more funding for research into

the impacts COVID-19 may have on society's mental well-being.

Two accompanying surveys of the British public showed that most people questioned had experienced heightened anxiety and fear of becoming mentally unwell since the pandemic struck.

"We are all dealing with unprecedented uncertainty and major changes to the way we live our lives as a result of coronavirus," said lead author Emily Holmes from Uppsala University's department of psychology.

"Our surveys show these changes are already having a considerable impact on our mental health."

The authors called for real-time monitoring of anxiety, depression, self-harm and suicide across the world, as well as the creation of treatment programmes that can be accessed remotely.

"This needs to be on a bigger scale than we have ever seen previously, and must be coordinated, targeted and comprehensive," said Matthew Hotopf, from King's College London's Institute of Psychiatry, Psychology and Neuroscience.

"Above all, we want to stress that all new interventions must be informed by top notch research to make sure they work."

Studies into the mental health impact of previous disease outbreaks, such as the SARS epidemic in the early 2000s, showed a clear increase in suicide rates and the number of health care workers who experience emotional distress.

But the impact of the COVID-19 epidemic is unprecedented, with billions of people forced to isolate at home and no end in sight even after social distancing measures are eased.

– 'Perfect mental health storm' –

The surveys, conducted among more than 3,000 people in Britain, showed a wide range of fears arising from the pandemic.

These include increased anxiety, the effects of social isolation, the fear of becoming mentally unwell and accessing care if needed.

The experts cautioned that these symptoms were likely to continue well in to the future, even after the current round of lockdowns are eased.

The authors called for government funding to establish specialised working groups comprised of people with experience of mental health impacts to ensure research and treatment are prioritised.

"Increased social isolation, loneliness, health anxiety, stress and an economic downturn are a perfect storm to harm people's mental health and wellbeing," said Rory O'Connor, professor of Health Psychology at the University of Glasgow.

He said that a lack of intervention risked an explosion of mental health conditions such as anxiety and depression, as well as a rise in alcohol and drug addiction.

"The scale of this problem is too serious to ignore, both in terms of every human life that may be affected, and in terms of the wider impact on society."

Manila Bulletin

Call to Accelerate Transformation Towards Sustainable Health Systems

The G20 Health Working Group concludes meetings in Riyadh by focusing on the transition towards sustainable health systems (Asharq Al-Awsat)

The Saudi capital continues to witness discussions among the Group of Twenty working groups in preparation for the G20 summit that is scheduled to be held in Riyadh in November 2020.

The G20 Health Working Group (HWG) stressed this week the need to transform towards sustainable healthcare systems and harness digital technology with a more accurate definition of the levels of challenges that will face the health sector in the future.

The HWG held its first three-day meeting on January 14 as part of the Kingdom's G20 presidency program.

The meeting was attended by delegations from G20 member states, invited guest countries and regional and international organizations.

Participants discussed common challenges and potential opportunities to determine the next steps toward creating sustainable person-centered health systems.

The sessions also focused on Value-Based Health Care (VBHC), Digital Health, and Patient Safety.

Constructive discussions tackled preparedness to face epidemics and the threat of Antimicrobial Resistance (AMR), building on the progress made in previous G20 presidencies.

Globally, healthcare accounts for 11 percent of GDP and generates millions of jobs, many of which are assigned for women.

But nearly 3.5 billion people do not receive the basic health services they need. This situation can improve if the international community cooperates and seizes all opportunities presented by emerging trends and technologies that are capable of shaping new horizons for the healthcare system.

Prior to the meeting, delegates attended the Accelerating Transformation Towards Sustainable Health Systems through VBHC.

The conference brought together experts, state delegations and representatives of international organizations to review the successful experiences and best practices on implementing VBHC solutions.

The G20 HWG will meet again in March to continue discussions and build consensus to create sustainable health systems that prioritize people's health needs and safety.

Asharq Al-Awsat

Japanese superfood can't combat COVID-19, but may prolong your life

By late April, natto became a quack COVID-19 'cure'

By Nevin Thompson, Masae Okabayashi

"納豆ごはん" (Natto over rice) by Flickr user Masafumi Iwai

Amidst the ongoing COVID-19 pandemic, a beloved Japanese food has become even more popular. Like toilet paper, hand sanitizer and medical masks, natto, a sticky, stringy and some say even smelly fermented dish made from soybeans that is believed to boost the immune system has disappeared from supermarket shelves in Japan in March and April, 2020. Luckily, however, it's possible for anyone to make natto at home.

Natto, sometimes compared with cheese, is a traditional Japanese dish made by fermenting soybeans with a bacillus subtilis culture, or nattokin. Loved for its rich umami flavor, natto is a popular and inexpensive daily staple in many parts of Japan, and is eaten on over rice or toast, in sushi rolls, in spaghetti, or by itself, mixed with hot karashi mustard and citrus ponzu sauce.

In mid-March, Nexer, a consumer research company in Japan, found that nearly 40 percent of Japanese people they surveyed incorporated special foods into their diet in order to "boost their immune systems" (免疫力を高める). While garlic and ginger were popular foods in the survey, fermented foods such as yogurt and natto topped the list.

Sticky, stringy natto, ready to be served. Photo by Nevin Thompson.

Also in March, rumors spread on social media that natto prevents COVID-19. These rumors were sparked mainly because, in prefectures traditionally associated with natto, such as Ibaraki and Iwate, COVID-19 infection rates have been relatively low. As shoppers started hoarding natto, Japan's Consumer Affairs Agency issued a bulletin debunking the idea the food could protect against COVID-19.

By late April, there were still shortages of natto in Japan, and the food began to be identified in the media as just one of a variety of quack COVID-19 "cures" that also included "wood creosote" (正露丸, seirogan), black tea, garlic, and cocaine.

Natto linked to increased longevity in Japan

However, while natto will definitely not help protect against COVID-19, the fermented "superfood" may actually be connected with increased longevity, according to two recent studies in Japan. In one study, which tracked eating habits and health outcomes of nearly 29,000 people in the city of Takayama between 1992 and 2008, participants who consumed one package of natto at least once a week had a 25 percent lower risk of dying from cardiovascular disease than those who reported rarely eating it.

Another study of about 90,000 middle-aged and elderly people over 15 years conducted by Japan's National Cancer Center found that intake of fermented soy foods, especially natto, was correlated with — if not directly linked to — a lower risk of death from cardiovascular disease and cancer.

While the connection between natto consumption and increased longevity has not been proven, one theory is that nattokinase, an enzyme found in the sticky strands of natto, has been shown to dissolve blood clots and in turn potentially help mitigate heart disease.

'Fermentation brings intoxication, joy, and freedom'

Despite its irresistible umami flavor or reputation as a superfood, some people are put off by natto's distinctive nutty aroma and sticky texture. Natto is generally more popular in Tokyo and other parts of eastern Japan compared to the rest of the country.

"I wasn't keen on natto either, in the beginning," says journalist, author and photographer John Ashburne, in an interview with Global Voices. "It was when Sasha (a chef and Ashburne's wife) prepared it with a raw quails egg and sliced scallions – both of which served to lessen somewhat the pong – that I began to appreciate it."

Ashburne, a longtime resident of Kyoto and a self-described mushroom cultivator and forager, is a well-known writer on Japanese food who has written a Lonely Planet guidebook on the subject.

Ashburne also makes his own natto at home.

"Fermentation brings intoxication, joy, and freedom. You can escape the tyranny of the food industry by making your own natto," says Ashburne. "There's a sense of creating something special, individual and something almost impossible to replicate exactly twice. Even if I wanted it to be, I don't think my natto would be exactly the same every time."

Ashburne says he likes to vary the beans he uses, and his process, sometimes steaming the beans, sometimes boiling them, or sometimes preparing over a slow heat with konbu, often without.

"It's as if the micro-organisms have a mischievous quality, with microscopic minds of their own. Fermentation on a non-industrial scale strikes me more like alchemy than cookery," says Ashburne.

How to make natto at home

Outside of Japan and other countries where natto is also popular, it can be hard to find it in supermarkets. However, with the right ingredients and cooking equipment, natto can be made at home.

Using one low-temperature method, natto can be made in the oven using sterilized glass jars or even plastic containers. The easiest method for making natto is by using an Instant Pot or pressure cooker. A key challenge will be finding natto starter spores, which contain the nattokin necessary for fermentation. One shortcut is to use packaged natto as a starter for a larger batch.

Global Voices
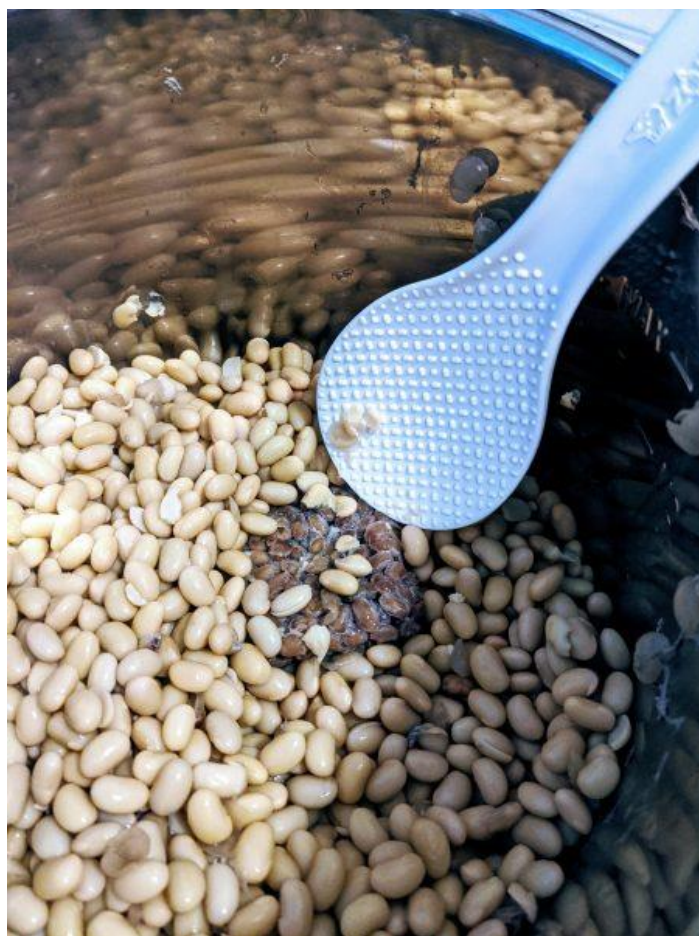
Taking a shortcut in the fermentation process and using packaged natto as a starter when making natto at home. Photo by Nevin Thompson.
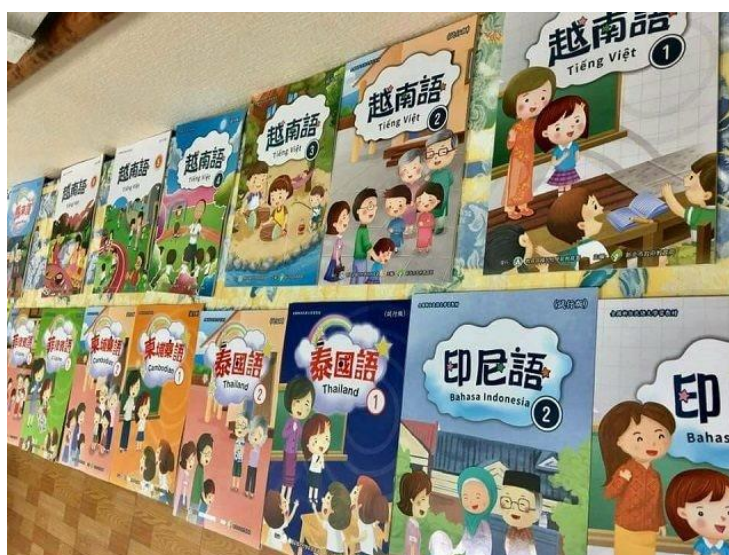
Taiwan to include 7 Southeast Asian languages in basic education

The measure marks the first of its kind in the world, MOE said

By Huang Tzu-ti

Taiwan to include 7 Southeast Asian languages in basic education (Photo/Ministry of Education)

A total of seven Southeast Asian languages will be included in the curriculum of schools at primary and secondary education levels in Taiwan, as part of the island's effort to promote cultural diversity and inclusiveness.

The language training will be provided as mandatory courses once a week starting the first year at elementary schools. Students are allowed to select languages they prefer, including Vietnamese, Indonesian, Thai, Burmese, Cambodian, Malay, and Filipino. The courses will become elective for junior high and senior high school students, said the Ministry of Education (MOE) in a press conference on June 25, 2019.

The policy is implemented to accommodate the increasing number of descendants --estimated to be 153,987 -- of new immigrant families. Around 2,328 teachers will be put in place for the language program, reported Liberty Times.

While the program is aimed to equip Taiwan's youngsters with more skills, it also seeks to acquaint them with Southeast Asian cultures. For example, students will learn about the cultural connotation associated with the hijab worn by Islamic women, said a teacher in the press event.

MOE is also teaming up with National Central University and Institute for Information Industry for the development of digital learning materials regarding the language program. This will allow for distance education and increase efficiency of learning, the report said.

Taiwan News

Russia's edtech companies step up in the pandemic

Expansion of online learning might help modify the country's archaic education system

By Dmitriy Frolovskiy
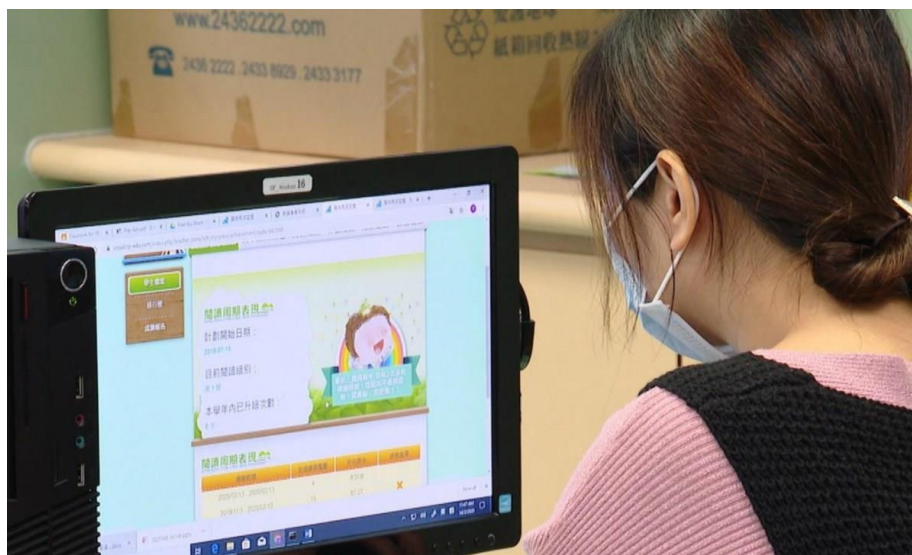
Online learning is a growing trend worldwide. Photo: RTHK

The looming economic fallout in Russia could wipe out as much as 10% of gross domestic product, and yet it could also deliver some transformative shifts. Educational technology is one of the areas destined to grow worldwide. Russia is not an exception to this trend and expansion of online learning might also help modify the country's archaic education system.

Stay-at-home policies imposed by the Covid-19 pandemic might be a blessing in disguise for edtech. This market that was already projected to hit US$40.9 billion globally by 2022 at an annual growth rate of 18.3% might receive an additional impetus.

The Covid-19 outbreak has facilitated an unprecedented rise of services such as Duolingo, a language-teaching app, which experienced 100% user growth in February in China, with school closures cited as a factor. Another example is Yuanfudao, one of China's largest online education companies, which raised $1 billion in March.

Rapid online shifts have also spurred share prices higher and pushed many edtech startups to expand. It is safe to say that in the post-pandemic world, online education will play a greater role and will be able to challenge traditional systems of education, which a 2016 McKinsey report, "Educational Services," described as the least vulnerable sector to technology disruption.

Russia has not been an exception to the rule. In 2019, the volume of the Russian online education market in the B2C segment reached 38.5 billion rubles ($500 million). In March, it was projected that the market's value would surpass the 60 billion ruble mark, growing at an annual rate of 12-15%. The impact of the pandemic, which might disrupt the Russian economy for years, will likely change the calculus.

There are few companies in the Russian tech market, but competition is significant. Yandex, one of the world's largest search engines, which also operates food tech, navigation and on-demand-taxi services, has leveraged its capabilities to launch Yandex.School. The project pledges to help teachers, students and parents retain a sense of normalcy during the pandemic and remains free to use.

The flexibility of the platform allows teachers to suit the progress of their students and apply it as a single resource or incorporate it into other remote learning programs. It has already seen more than 40,000 students logging into a lesson simultaneously, while lessons on the platform were viewed more than 2 million times in the two weeks following the launch on March 31.

Another flagship of Russian edtech is Skyeng, an online education platform that is funded by Baring Vostok, a major private equity fund. The company has been around for seven years and started as a platform to address growing language-learning demand, but gradually expanded and embraced other education services. In recent years it has emerged as the favorite tool for easy and fast access to language classes. Skyeng canceled subscription for 20 online resources after the Covid-19 outbreak and the measure will likely boost the company's market share even further.

The spread of edtech might deliver serious disruptions to Russia's education system. The country's institutions have been on the rise compared with other developing nations. Russia has witnessed an improvement in the Times Higher Education World University Rankings and the number of its universities on the list rose from 27 to 35, making its schools the fourth most represented among the emerging economies. But the gains are overshadowed by a continuous decline in public spending over the past few years – a trend that is set to continue.

The Economic Intelligence Unit has predicted that Russia's public expenditure on education will decline to 3.7% of GDP by 2030. The EIU also projects that public funding for tertiary education and job training may take a hit, as wage growth isn't expected to rise as quickly as the cost of college tuition.

Russia's national curriculums have also been occasionally criticized for using orthodox materials and tolerating widespread cheating and plagiarism. With the Covid-19 pandemic and declining oil revenues likely resulting in sluggish recovery, Russia's education will most likely face some hard times that might push it to introduce structural changes.

The bleak prognosis could be partially offset by online learning that over time could become even more popular and find recognition on the state level. The current pandemic might have revealed online education as a viable alternative.

In effect, Russian officials who have been skeptical about the format could be more open about incorporating it into teaching methodologies. The growing popularity of open online courses could likewise deliver greater learning gains than the traditional model. Thus edtech in Russia has all the chances of spearheading changes among legacy institutions and pushing them to adopt online teaching services.

This would likewise significantly boost levels of technical skills among students and might enhance competitiveness in the age of digital disruption. In addition, Russia's edtech companies would secure gains and the market's projected volume would likely surpass current forecasts.

Asia Times

Japan keen to accelerate remote education amid virus spread

JIJI

Children use an online teaching material during a recent demonstration by Sharp Corp. in Sakai, Osaka Prefecture. The firm has developed a remote education system in collaboration with an operator of tutoring schools. | SHARP CORP. / VIA KYODO

The government plans to accelerate the introduction of remote education using the internet, drawing lessons from the ongoing coronavirus pandemic, while local governments are reluctant about the initiative.

At a meeting of the central government's Council on Investments for the Future on April 3, 2020, Prime Minister Shinzo Abe showed his intention to move up the current plan of making a laptop or other information terminal available to every student across the country by fiscal 2023 to improve the environment for study at home.

Abe laid out the plan amid growing concerns that emergency school closures in areas with spikes in coronavirus infection cases could continue for an extended period of time. The board of education at the Tokyo Metropolitan Government, for example, has decided to extend school closures until May 6, the final day of the Golden Week holiday period.

While the school closures are a headache for teachers and other people related to schools, as well as parents, who are concerned about a decline in children's academic abilities, online education using a videoconference system and other technologies is drawing keen attention. Still, it has yet to gain popularity.

The government has conducted a survey on remote education at elementary, junior high and high schools, with the help of local governments nationwide.

Japan Times

Future Class Network hopes to cultivate entrepreneurship among youth

CEO suggests flipping traditional educational methods to solve real problems

By Kim Young-won

Jung Chan-pil, secretary-general of the Future Class Network, an organization that strives to upgrade Korea's public education system (Future Class Network)

For many students in South Korea, acing tests at school and going to prestigious universities remain the primary goals. Students and parents still tend to believe academic qualifications ensure success in the form of jobs, income and future relationships.

In an effort to send as many of their students as possible to top-tier colleges and universities, high schools also focus on preparing students for the national college entrance exam. But according to Jung Chan-pil,

secretary-general at the Future Class Network, this test-oriented education system overemphasizes passive learning and fails to nurture individuals with the skills that are most in demand in this fast-changing digital society.

The FCN is an educational organization that helps young people hone their problem-solving skills instead.

"The existing education system judges students based on how well they understand and memorize what they are taught at school," said Jung in a recent interview with The Investor. "That is seriously hurting students' ability to think critically and solve problems."

Though the importance of critical thinking and problem solving is no secret, attempts to root out entrenched problems in the Korean educational system have mostly been unsuccessful, he said -- partly because would-be reformers tried to overhaul the system completely, changing everything from A to Z.

Instead, he suggests reversing or "flipping" the traditional method of delivering lessons, so the central focus is student engagement rather than lengthy explanations by teachers.

Since its foundation in 2014, the FCN has used what is known as a flipped learning model in its educational programs, one where students lead the class together.

In a conventional classroom teachers assume the lead role and class time mostly consists of lectures or explanations of theoretical concepts in textbooks. In a flipped class, on the other hand, students have already learned the content first, often by watching videos. Their class time is spent teaming up to apply what they have learned by solving real-world problems.

For example, when students learn about smartphones, they discuss the devices' impact on society and different industries, and they consider how their school subjects -- for example, Korean, math, science and foreign languages -- are linked with smartphone technology or content.

Around 60 students between the ages of 15 and 20 are participating in FCN's programs. Students can graduate -- Jung uses the word "exit" -- whenever they feel ready to jump into the real world.

Encouraging entrepreneurship among youth is one of the goals of the FCN's experimental classes.

"Nurturing problem solvers -- in other words, growing entrepreneurs -- is what we do here," said Jung, adding that the organization is planning to run a so-called "junior MBA" course in the future.

Along with educational programs for youth, the FCN also offers training programs for teachers in partnership with district education offices across the nation.

Jung was an elite himself by the standards of the current educational system. After graduating from the prestigious Korea University, he worked as a documentary producer at the state-run broadcasting station KBS.

While making TV documentaries in 2013 about failing classrooms and effective measures to fix them, Jung joined hands with schoolteachers and local education offices.

His son's struggle with the conventional school system is another reason he threw himself into the education field.

"My son was highly unmotivated -- no interest in school and studying -- when he was in the third year in middle school," said the secretary-general. "I just let him do whatever he wanted and the only thing I told him was to try to find what he really wanted to do."

His son is now a 3D animation designer who represents the nation in global game design competitions.

In 2016 the FCN gained recognition for its educational model and for facilitating social change, taking the top award at the Google Impact Challenge. It also bagged a prize at WeWork's Creators Awards earlier this year in the nonprofit category.

Korea Herald

Turkey to boost vocational schools to ease dense universities

By Serkan Demirtaş

Turkey has to decrease the number of students at universities by strengthening vocational schools which would also help to supply the small and medium-size enterprises with qualified manpower, the education minister has said, underlining that the education life should prepare individuals for life and not university entrance tests.

"Our main project is to ease the accumulation at the universities by making our vocational schools more attractive. In countries where the number of university students is too excessive, that means there is a problem there. Not everybody has to go to university," Education Minister Prof. Ziya Selçuk told the Hürriyet Daily News on a visit to the Demirören Media Center on January 23, 2020 in Ankara.

The number of university students exceeded 7.5 million as of 2019, with more than two million high school graduates annually pass university entrance

exams in Turkey. A very high proportion of university graduates fail to find a job, adding new figures to Turkey's already troubled unemployment figures.

Strengthening and updating the curriculums and equipment of the vocational schools would be a good way to offer an alternative to the students, Selçuk said, informing about the positive results of the implementation of this new understanding in the pilot scheme.

"We have turned the hotels, factories and plants into vocational schools as the equipment pool at schools has long been ago outdated. The idea was 'if you cannot provide new equipment, then relocate the education where you can find the necessary tools'," he stressed. Initial results of this new system are encouraging as both the students and the businesses express satisfaction, he added.

Integrating education with the economy is key in creating value and boosting vocational schools would sure serve this purpose, the minister said, drawing attention on the need for qualified and semi-qualified workers in Turkey.

"In the meantime, we can also work to shift a negative approach to vocational schools. There are students who prefer to apply to the vocational schools we have opened inside the hotels. Some want to enroll in a vocational school at the Istanbul Technical University's Teknopark. Because these are schools with job guarantees," he said.

Students will receive tailor-made guidance

A key point in efforts to introduce changes in the education system is to be able to follow the academic and pedagogical development of each and every student starting from pre-school and elementary schools, the minister stated.

"A computerized system is designed to trace the performances, areas of interests and certifications of each and every student starting from primary school. The system will follow the children from the day they enroll in a school. Implementation will begin in the next academic year in pilot school and be fully ready for the 2021-2022 education year," he stated.

Thanks to this system, the families, the schools and the students will be able to make sound decisions on how to proceed in academic life, Selçuk stressed.

Education requires national consensus

Education requires a national consensus, as there can't be an education of a single political party, Selçuk said. "That's why we call it the national education. And that's why we should move in terms of the common ground of our nation. Otherwise, the process of becoming a nation would be delayed and everybody will try to educate the children through their own prism. And that destroys a nation's shared dream and ideal."

The world will mark a new turning point by the 2040s as it's coming to the end of what we today call the information society, the minister said, predicting that this new era will abolish all the current employment systems.

"That's why we should not pre-occupy the minds of our children with all these known competences. We should prepare our children for life and not for [university entrance] exams."

Hürriyet Daily News

Sydney to get its first senior high school for science whiz kids

By Jordan Baker

Joey Tsao has always been a science whiz. At James Ruse Agricultural High he quickly exhausted his teachers' knowledge, and taught himself from university textbooks. "There were lots of intellectuals," he remembers. "We used to just teach each other."

Since graduating in 2003 - in the same class as celebrity maths teacher Eddie Woo - Mr Tsao and fellow James Ruse graduate Shaun Balnave, both 34, have tutored students hungry for more complex science than the HSC syllabus offers. In 2020, they will take that a step further by opening their own school.

Sydney Science College in Epping is being billed as the city's first STEM senior high school. Teachers will include an astrophysicist, former university lecturers, and the ex-chemistry co-ordinator at North Sydney Boys' High School.

Students will study the sciences, maths and the only compulsory HSC subject, English, in classes of six. They must pass an aptitude test to be accepted into the program, and the all-inclusive fees will be $31,500 a year.

The school is also a not-for-profit venture, so it will be eligible for government funding like other independent schools. "We expect to have a full enrolment of 40 [year 11] students in 2020," said Mr Tsao, with another 40 the following year.

"We believe that we will get a near equal amount of students from both the private and public sector as student ambition occurs universally, and spending for quality education in year 11 and 12 is becoming more normal in Sydney."

Small class sizes would mean "everyone can contribute, everyone can ask questions, there's no waiting time for other students," Mr Tsao said. "That means you can do really interesting stuff."

The small class sizes and experienced teachers would enhance the students' experience, he said. For example, while some schools preferred to show videos of experiments for safety reasons, Sydney Science College students will do the real thing.

"We wanted to get people who used to run their own PhD programs at uni, they've run their own labs, they have the type of expertise that nearly no teacher at high school level has," Mr Tsao said. "We can do stuff that normal high schools can't."

Construction is finishing on the new school premises, near Epping Station, and open days will be

Shaun Balnave and Joey Tsao are setting up a new college for year 11 and 12 science and maths enthusiasts. CREDIT: WOLTER PEETERS

held in January and February. But first, students must sit a test.

"It's different from a selective school test," said Mr Tsao. "It's more a logic test. Puzzles, problem solving - stuff you can already tell when they are in primary school. If the student has a mind that is geared towards science, then we will be willing to take them."

Mr Tsao and Mr Balnave, who have spent the past three years registering their new school with the NSW Education Standards Authority, do not have education degrees themselves, and do not intend to get them. Their degrees are in advanced science.

Without accreditation, they will not be allowed to teach. Their job as principals will be to drive the strategic direction of the school, manage the business, and work with staff.

"We've been teaching students for so long, we knew that for us to do masters of teaching was a waste of time," Mr Tsao said. "But we have lots of keen people who wanted high school careers, they are transitioning from tertiary [education] and have to do a masters of teaching."

The school has hired nine teachers for eight classes in the first year 11 cohort (two work part-time), and Mr Tsao said many were university and industry science buffs that had been interested in education, but put off by many aspects of the job in standard schools.

"It is perceived that getting a career at a school might not be that attractive," he said. "It is hard work, they are doing a lot of admin, the teaching is only half the job, and there's not much time to teach well.

"We have the luxury to have a whole week to prepare a whole lesson, while other teachers might be preparing three different lessons in one day."

The Catholic education diocese of Parramatta is also building a STEM high school at Sydney Science Park in Luddenham.

The Sydney Morning Herald

Reforming education for Society 5.0

By Takamitsu Sawa

Success in Society 5.0 requires a different kind of education than that now taught in Japanese universities. | ISTOCK

Society 5.0 is the name the government has given to a new society to be brought about by progress in such technologies as artificial intelligence, robotics, self-driving vehicles and the internet of things. If such a naming is to be accepted, it is logical to assume that there existed in human history societies 1.0 through 4.0. They were, in chronological order, the hunting society, farming society, industrial society and the information society. Today we live in the information society, but the transition to Society 5.0 is just around the corner.

In Society 5.0, remote medical services, automatic translation that removes language barriers, AI and robots supporting the elderly or people with disabilities, autonomous driving technology assisting elderly drivers, and real-time access to necessary information are expected to eliminate problems arising from social disparities, according to the Cabinet Office.

At least in the Cabinet Office's view, Society 5.0 can be interpreted as a utopia that will simultaneously achieve both economic development and resolve various social problems. While I do not fully agree with this view, let's assume that we accept it at face value.

The Ministry of Education, Culture, Sports, Science and Technology created a panel of representatives from industrial and academic circles to discuss measures to reform university education and entrance exams in preparation for the arrival of Society 5.0. In April 2019, the panel released an interim report and proposal jointly by its members. To sum it up, the report emphasizes the need for nurturing human resources well-versed in AI and data sciences, and also calls for improving liberal arts education.

Until several years ago, reports coming from the education ministry seemed to consider liberal arts as being synonymous with philosophy and ethics. But the latest report deepens and expands the meaning of liberal arts by saying that today's liberal arts education aims at improving students' ability to think logically and form normative judgments — through the study of a broad range of subjects like humanities, social sciences and natural sciences — so that they acquire basic skills in identifying and resolving problems, and devising and designing social systems.

In 1949, four years after the end of World War II, the Allied occupation forces introduced to Japan a "6-3-3-4" education system consisting of six years of elementary school, three years of junior high school, three years of senior high school and four years of university.

The four years at university were divided into the first one to two years of studying under a general education curriculum and the last two to three years of concentrating on specialized subjects. The general education curriculum, which was compulsory, required students to study one foreign language other than English and three subjects each in the humanities, social sciences and natural sciences.

In the United States, university students freely select subjects they want to study in their freshman and sophomore years. From the latter half of their sophomore year to the first half of their junior year, they decide on their major and minor subjects, and narrow down subjects for basic study in specialized fields in accordance with their future professional aspirations, aptitude and competence.

Only after completing their liberal arts education and study of basics in specialized fields in their undergraduate years do they advance to professional or academic graduate schools to receive training in such specialized fields as jurisprudence, medical science, business administration and engineering.

Japan's postwar education reform was modeled after the U.S. system. But, strangely enough, the new system retained the practices at universities under the old education system, under which students select the department where they will study when they first enroll. This means that while belonging to a particular department, each student must study both the basics of specialized subjects and purely specialized subjects during their four years. It is next to impossible to have students receive a liberal arts education while they pursue subjects in specialized fields.

As a result, liberal arts education at Japanese universities became a dead letter. Both teachers and students lack enthusiasm for the 48 credits of study in subjects covered by general education, which includes foreign languages and physical education — more than one-third the total of 124 credits needed for graduation. Thus general education has effectively become a waste of time.

This led the education ministry in 1991 to adopt a new set of standards for establishing and administering universities, the crux of which was the liberalization of university education. Not only the requirement to earn a certain number of credits in general education but also the requirement to learn a second foreign language was eliminated. Many universities chose to halve the number of credits students have to earn in general education or to reduce it.

In liberal arts education of humanities and social sciences at U.S. universities, students are given assignments to read the major literary classics of Western civilization and teachers and students engage in two-way discussions in the classroom.

The books that the students are required to read in preparation for classroom discussions include "Apology of Socrates," "The Republic" by Plato, "The Communist Manifesto" by Karl Marx and Friedrich Engels, "Nicomachean Ethics" by Aristotle, "The Prince" by Niccolo Machiavelli, "Leviathan" by Thomas Hobbes, "Utilitarianism" and "On Liberty" by John Stuart Mill, "The Structure of Scientific Revolution" by Thomas S. Kuhn, "Clash of Civilizations" by Samuel P. Huntington, "Democracy in America" by Alexis de Tocqueville and "The Social Contract" by Jean-Jacques Rousseau.

On the other hand, liberal arts education as envisaged by the education ministry panel's interim report appears to aim at making students study a variety of sciences using introductory textbooks widely and shallowly, and gain broad knowledge and the ability to think from diverse standpoints.

This way of educating students may serve to produce people with wide knowledge but can hardly be expected to enable students to enhance their ability to think logically, and to form normative judgments and acquire fundamental capabilities to identify and resolve problems or to conceive and design social systems.

It will be impossible to nurture human resources suitable for Society 5.0 unless drastic curriculum reforms are carried out to make universities an arena for a liberal arts education and the study of basics in specialized fields, and leave advanced studies of specialized subjects in the hands of graduate schools.

Japan Times

How is Georgia coping with online education challenge?

Photo: TV school / Teleskola Facebook

The Organization for Economic Co-operation and Development (OECD) has recently released a report on tackling the educational challenges in 2020 caused by COVID-19 pandemic. Study examined practices from 98 countries. The steps taken by the Georgian government to ensure a continuous education process are considered to be one of the best examples, says official statement by Ministry of Education and Science of Georgia.

The document lists all the measures taken by the Ministry of Education, Science, Culture and Sports of Georgia with the support of the government. These measures are:

1. Teleskola Project: broadcasting TV lessons, launched on March 30. These lessons encompass all the mandatory subjects between grades I-XII. Subsequently, the document states that with this project, the Georgian education system has taken care of the availability of distance learning for all its citizens.

2. The Ministry of Education, Science, Culture and Sports of Georgia has created Microsoft Office 365 user profiles for about 600,000 students of Georgian public schools, 55,000 teachers and school faculty members through the Education Information Management System (EMIS).

3. A portal has been created that allows students and their parents to access students 'data without the direct involvement of the school administration and teachers.

4. A virtual classroom has been set up on Microsoft TEAMS platform, intended for all subjects.

5. Virtual counseling centers have been organized across all regions of Georgia, allowing volunteer experts from the New School Model to help teachers cope with the technological aspects of distance learning.

Data was collected to provide teachers and students with access to the Internet and digital technologies. According to statistics, 750 active users are involved in Microsoft TEAMS every day. In total, Microsoft TEAMS has 138,698 users; As of March 23, Office 365 had 143,140 active users; Email and Data Online Storage (OneDrive) has about 14,000 active users. In addition, support groups for the New School Model are actively working on school reform, an important component, dictating the introduction of distance learning and the sharing of experiences with other schools and teachers.

Furthermore, the Ministry of Education, Science, Culture and Sports of Georgia has developed special recommendations that guides parents to ensure child's active involvement in distance learning procedures. Also, teachers, through constant communication with parents, will provide information about the progress of the distance learning process, so that students are able to perform all the necessary activities in a timely and adequate manner.

The biggest challenge facing the education system in the world is the malfunction of technological infrastructure, which is a necessary condition for the effective implementation of distance learning. In this regard, Georgia has been much better prepared than other countries, the study said.

Georgian Journal

E-learning methods see boom during COVID-19 pandemic

E-learning models were expected to boom amid the COVID-19 outbreak as the Government searches for new education methods, experts said.

The outbreak of the novel coronavirus has caused significant changes to all sectors, including education and training. To help control the spread of the virus, thousands of students in Việt Nam have been off school for more than three months, so many have turned to online learning platforms.

Online learning could be a solution to the education conundrum during the COVID-19 pandemic, said Dr Nguyễn Xuân Khanh from Oulu University.

Following this trend, online training platforms such as Viettel Study, VNPT e-learning, Topica and Hocmai have seen their number of users skyrocket.

Statistics from Viettel showed that its e-learning platform Viettel Study had been launched at nearly 26,000 schools nationwide. More than 120,000 courses had been created on the system, attracting 10,000 students. Access to the platform had reached 3.4 million and page views had hit more than 41 million a day.

To facilitate online learning, Viettel Group has announced free 3G and 4G data for teachers and students with the Viettel Study social learning network. It has also

posted free online learning content on the platform for free.

Compared to other online learning applications, Viettel Study is the only identifiable learning social network in Việt Nam.

On the Viettel Study platform, teachers and students can interact with each other and access unlimited resources, while teachers can create free lectures on the system. It has been recognised by the Ministry of Education and Training (MoET) and the Ministry of Information and Communications to promote digital transformation in the education sector.

"Viettel will continue to offer free services for teachers and students on Viettel Study as well as 3G and 4G data even when the pandemic is over. Viettel Study has co-operated with the MoET to support e-learning at universities," said Lê Đăng Dũng, acting chairman cum general director of Viettel Group.

Dũng said that Viettel had been co-operating with the ministry to build a digital school system since 2014.

"We expect e-learning to become a vital asset," he added.

New opportunities

The COVID-19 pandemic has caused many difficulties, but it could also facilitate the establishment of new teaching methods and promote market development.

Assessing the trend of online learning in the near future, Viettel said that COVID-19 would push online learning, especially once the MoET issued an official circular on online teaching and learning.

"This will be an opportunity for users to see the way e-learning systems to continue to apply in fostering knowledge after returning to normal schools," he added.

Viettel will continue to develop products by optimising the user experience, making Viettel Study an all-in-one system.

According to Ken Research, the online education market in Việt Nam grew at a two-digit compound annual growth rate from 2013 to 2018. With the internet penetration rate reaching 8 per cent in 2019, the growth of e-learning services would reach 23.4 per cent from 2019-23.

The Government has taken measures to promote the Internet of Things, Big Data, 4G, 5G and Atificial Intelligence. With the robust growth of 4G and 5G, the number of smartphone users will also skyrocket, adding to Việt Nam's online teaching infrastructure.

A representative from FUNiX said more than 40 per cent of the world's population was connected to the internet. Most of them are young people with high

Viettel Study has seen user numbers skyrocket during COVID-19 thanks to its modern e-learning infrastructure and free data fees. Photo: viettelsolution.vn

learning demand, giving the e-learning market massive potential. With annual revenue growth of over 40 per cent, the market's scale was estimated at some US$2 billion.

Recent figures from Ambient Insight also revealed that with a growth rate of 44.3 per cent, the e-learning sector in Việt Nam even surpassed Malaysia (39.4 per cent). Notably, under the new general education programme from the MoET, information technology will be included in all levels of education in the new general programme from 2020.

This is a great opportunity for domestic and foreign investors to continue investing in developing e-learning training models.

Vietnam NEWS

Bangkok Bank and Thammasat University Join Force to Enhance Thai Education

By Kunnikar

Bangkok Bank signed 2 MOUs with Thammasat University and agreed to support "Kor Karn Kru: inspiration teacher lighting learning fire" project. The primary aim is to encourage teacher to make change. Another project is "Collective Development School" which will be a join force of all sectors to create a sustainable "student-teacher-school-system".

Mrs. Rajni Noppameung, Vice President of Bangkok Bank, says that we have signed MOU for "Kor Karn Kru: inspiration teacher lighting learning fire" project. The project will advance education in civil state schools by encouraging teachers to be a revolutionist and make changes in community and society around the school. It will be a beginning point in changing Thai education. In addition, we also signed MOU to support "Collective Development School" project. The project is about cooperation between several organizations to make school as a lifelong learning place for the community. We have selected Wat Niwetwuttharam School (Bangkok Bank 22) in Nakhon Sawan and Banbangmak School (Bangkok Bank 24) in Trang as a civil state school in CONNEXT ED project.

"We are aware of the importance of Thai education's sustainable development. We are willing to provide proper educational environment in order to encourage and build quality personnel. Therefore, promoting education is one of our main projects. It is such a great opportunity that our bank was a part of these 2 projects. The projects aim to build quality "people-school-management system" which will benefit Thailand and younger generation in the future." Mrs.Rajni said.

Associate Professor Anuchart Puangsamlee, Dean of the Faculty of Learning Sciences and Education, Thammasat University, reveals that "Kor Karn Kru: inspiration teacher lighting learning fire" project is a collaborative work between several educational and human development agencies. We realize that educational system is complicated so we need help from every sector. We will drive a change in the education system, policy, management, process, and society's attitude. We believe that teachers are change agents which are the key to educational system. Teachers can improve students' potential which will be the main force in Thai society.

Faculty of Learning Sciences and Education, Thammasat University, gives an importance of developing teachers. They will create active learning with students and create professional learning community (PLC). We hope that teachers will bring change to students, classroom, school, and community by teaching them through experience and skills.

"Collective Development School" project will drive education in 3 level which are institutional level, systematic level, and policy level. We will give importance in building collective vision and improving educational environment. Both community, school, and

other networks will help develop education and society. We have 4 development strategies:

1) Development of learners in terms of academic results and life skills.

2) Development of teachers and academic personnel in terms of their knowledge, capability, skills, and teacher's attribute that will encourage and support students.

3) Development of institutions in terms of their course, learning media, and learning management process. We will improve them to be modern and appropriate for the 21st century's learners.

4) Development of management quality to create proper governance to cooperate with other agents holistically within the education environment.

Associate Professor Gasinee Witoonchart, President of Thammasat University, states that we are concerned about developing teachers and students' potential. Our cooperation with Bangkok Bank will enhance learning innovation which will drive a change to Thai education in this 21st century.

QS WOW News

ABOUT CACCI

The Confederation of Asia-Pacific Chambers of Commerce and Industry (CACCI) is a regional grouping of apex national chambers of commerce and industry, business associations and business enterprises in Asia and the Western Pacific.

It is a non-governmental organization (NGO) serving as a forum for promoting the vital role of businessmen in the region, increasing regional business interaction, and enhancing regional economic growth. Since its establishment in 1996, CACCI has grown into a network of national chamber of commerce with a total now of 29 primary Members from 27 Asian countries and independent economies. It cuts across national boundaries to link businessmen and promote economic growth throughout the Asia-Pacific region.

As an NGO, CACCI is granted consultative status, Roster category, under the United Nations. It is a member of the Conference on NGOs (CoNGO), an association of NGOs with UN consultative status.

For more information, please visit www.cacci.biz.