

OPINION

Innovative medicines are the lifeblood of generics

The Department of Health (DoH) recently launched the Philippine Medicines Policy for 2022 to 2030 which will align efforts toward sustainable access to medicines and reduce healthcare out-of-pocket spending for Filipinos.

Presented during the Philippine Generics Summit held last week, the policy identifies the promotion of generics as a means for increasing medicine access.

President Ferdinand R. Marcos, Jr., was right when he said that generic medicines can lower medicine prices as it will spur further competition.

Generics infuse fierce competition in the market, pulling prices down for the patients. More importantly, generic medicines provide broader treatment options for both patients and physicians.

Access to medicines begins with pharmaceutical research and development (R&D) of medicines. For over 200 years, pharmaceutical research has led to the development of innovative, lifesaving medicines. On average, it takes 14 years to discover and test a new medicine. Due to the rigid safety and efficacy testing, only 1 to 2 of 10,000 substances eventually become available to patients. The cost of developing a successful medicine can easily exceed \$2.6 billion.

Despite the long, expensive, and risky process, pharmaceutical R&D continues. An industry report stated that there are more than 9,000 drug candidates in development for cancer, immunology, neurology, infectious diseases, digestive conditions, respiratory illnesses, musculoskeletal, and diabetes among others.

A high of 74% of these medicines in the pipeline are potentially first-in-class, which refers to drugs that use a new and unique mechanism of action for treating a medical condition. The value of innovative medicines cannot be understated, as 73% of recent survival gains in cancer are attributed to treatment advances.

The value of continued R&D is also evident following the declaration of the coronavirus disease 2019 (COVID-19) pandemic. Scientists belonging to the pharmaceutical industry scanned through their vast library in search for potential diagnostics, vaccines and treatments. Due to innovation even at the risk of failures, we have produced COVID-19 vaccines at record speed, and made available treatments for mild, moderate and severe cases to help save more lives.

Innovation does not stop once new drugs are available. The R&D for these medicines continues as scientists gain better knowledge and understanding of diseases and how to treat them. Specific to COVID-19, vaccines for different age groups have been developed. Today, variant-specific vaccines have also been made available.

Beyond the development of COVID-19 vaccines, so-called incremental innovation leads to the discovery of new uses for existing

treatments, improvements in dosing options, and a broader range of medicines to available to patients.

Through this continuous improvement process, we are able to provide medicines that are safer, more effective, and more responsive to the needs of patients. Examples include the availability of oral preparations from an exclusively injectable preparation such as insulin, and dosing regimens that are less complex and more "compliance-friendly," such as those used for hepatitis C.

Innovative medicines are the lifeblood of generics. Once approved by the Food and Drug

Administration, a generic drug is a medication created to be the same as an already marketed brand-name drug in dosage form, safety, strength, route of administration, quality, performance characteristics, and intended use.

When regulatory agencies approve multiple generic companies to make available a single product, more competition exists in the marketplace, which typically results in lower prices for patients.

Members of the Pharmaceutical and Healthcare Association of the Philippines (PHAP) are contributing to this effort. Rhea Generics, for example, has partnered with AstraZeneca, Boehringer Ingelheim, GlaxoSmithKline, Merck, Otsuka, Pfizer, and Sanofi to widen the availability of generic medicines while Novartis has Sandoz as its generic and biosimilar arm. Also possessing a generics portfolio are SwissPharma, Champion Biotech, Glenmark, Panpharma, Qualimed, and Vizcarra. Generic medicines are also being carried by members AC Healthcare, MedGrocer, Mercury Drug, The Generics Pharmacy, and Watsons.

PHAP, for its part, is forging partnerships to boost clinical trials for early access, fast track availability, increase supply chain efficiencies, enhance competition for greater access, and promote ethics and a level playing field in the Philippine pharmaceutical industry.

Discussions about industry development will be more comprehensive if they also consider the value of the biopharmaceutical sector. The Philippine Medicine Policy crafted by the DoH and the Philippine Pharmaceutical Industry Roadmap led by the Department of Trade and Industry are crucial pathways in enhancing access to medicines in an era of Universal Healthcare.

TEODORO B. PADILLA is the executive director of the Pharmaceutical and Healthcare Association of the Philippines (PHAP), which represents the biopharmaceutical medicines and vaccines industry in the country. Its members are at the forefront of research and development efforts for COVID-19 and other diseases that affect Filipinos.



Flu shots advised as cases rise

By Brontë H. Lacsamana

Reporter

FLU SEASON is far from over, with on-and-off rains continuing until November. Basic hygiene habits like hand washing and physical distancing can protect individuals against the influenza virus, doctors said.

"Much like other infectious diseases, the flu is highly preventable through strict compliance with public health and safety regulations and the practice of basic hygiene habits whether in school or the office," said Dr. Gyneth Lourdes G. Bibera, country medical director of GlaxoSmithKline Philippines, Inc., in an e-mail interview with *BusinessWorld*. "Other than those, I would say that getting vaccinated is probably one of the most effective steps in preventing the spread of influenza viruses," she added.

According to the Department of Health (DoH), there were 57,083 influenza-like cases reported Jan. – Aug., a 15% increase from the same period last year.

Getting a proper diagnosis from a physician is advised since flu symptoms are similar to those of coronavirus disease 2019 (COVID-19): fever, cough, sore throat, runny or stuffy nose, body aches, headache, chills, and fatigue.

Influenza can be managed at home through guidelines provided by the DoH:

- Use of antiviral agents within the first two days (best to consult a physician);
- Paracetamol for fever (but no aspirin for children);
- Antibiotics to be given only to complications of influenza such as pneumonia;
- Adequate rest; and
- Increased intake of fluids and nutritious foods.

"The safest and most fool-proof way to treat influenza is to consult your physician for medical guidance," said Dr. Bibera.

The US Centers for Disease Control and Prevention recommended annual flu vaccination due to viruses varying from season to season.

"Every year, flu vaccines are formulated to protect against the viruses that research suggests will be most common," said Dr. Bibera. "Ideally, people should be getting their flu vaccines from February to May before the flu season starts."

In September, the Philippine College of Geriatric Medicine released a statement asking the government to improve flu vaccination for senior citizens, who are most vulnerable to life-threatening circumstances when exposed to the illness.

A 2020 study on flu in the Philippines determined that flu season in the country lasts from June to November, with a peak in August. It also found that the cost of hospitalization from being gravely ill from the flu can range from P10,000 to P30,000 per episode.

"By getting vaccinated now, we can ensure our and our families' protection as early as possible," Dr. Bibera said.

She added that since viral diseases usually start with flu-like symptoms, being protected can help dispel unwarranted anxiety and unnecessary costs.

Swedish geneticist wins Nobel prize for decoding ancient genetic material

STOCKHOLM/LONDON — Swedish geneticist Svante Paabo won the 2022 Nobel Prize in Physiology or Medicine on Monday for discoveries that underpin our understanding of how modern-day people evolved from extinct ancestors at the dawn of human history.

Mr. Paabo's work demonstrated practical implications during the coronavirus disease 2019 (COVID-19) pandemic when he found that people infected with the virus who carry a gene variant inherited from Neanderthals are more at risk of severe illness than those who do not.

Mr. Paabo, director at the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany, won the prize for "discoveries concerning the genomes of extinct hominins and human evolution," the Award committee said.

"The thing that's amazing to me is that you now have some ability to go back in time and actually follow genetic history and genetic changes over time," Mr. Paabo told a news conference at the Max Planck Institute. "It's a possibility to begin to actually look on evolution in real time, if you like."

Mr. Paabo, 67, said he thought the call from Sweden was a prank or something to do with his summer house there.

"So I was just gulping down the last cup of tea to go and pick up my daughter at her nanny where she has had an overnight stay," Mr. Paabo said in a recording posted on the Nobel website.

"And then I got this call from Sweden and I of course thought it had something to do with

our little summer house ... I thought the lawn mower had broken down or something."

Asked if he thought he would get the award, he said: "No, I have received a couple of prizes before but I somehow did not think that this really would qualify for a Nobel Prize."

Mr. Paabo, son of a Nobel Prize-winning biochemist, has been credited with transforming the study of human origins after developing ways to allow for the examination of DNA sequences from archaeological and paleontological remains.

Not only did he help uncover the existence of a previously unknown human species called the Denisovans, from a 40,000-year-old fragment of a finger bone discovered in Siberia, his crowning achievement is considered to be the methods developed to allow for the sequencing of an entire Neanderthal genome.

'GENETIC DIFFERENCES'

This research, which showed that certain genes of Neanderthal origin are preserved in the genomes of people today, was once considered impossible, given that Neanderthal DNA on bones has shivered up over thousands of years into short fragments that have to be assembled like a gigantic puzzle, and are also heavily contaminated with microbial DNA.

"This ancient flow of genes to present-day humans has physiological relevance today, for example affecting how our immune system reacts to infections," the Nobel Committee said.

The prize, among the most prestigious in the scientific world, is awarded by the Nobel Assembly of Sweden's Karolinska Institute and is worth 10 million Swedish crowns (\$900,357).

It is the first of this year's batch of prizes. Born in Stockholm, Mr. Paabo studied medicine and biochemistry at Uppsala University before creating a scientific discipline called "paleogenomics," which helped show genetic differences that distinguish living humans from extinct hominins.

"His discoveries provide the basis for exploring what makes us uniquely human," the Committee said.

The COVID-19 pandemic has placed medical research center stage, with many expecting that the development of the vaccines that have allowed the world to regain some sense of normality may eventually be rewarded. — **Reuters**

FULL STORY



Read the full story by scanning the QR code with your smartphone or by typing the link bit.ly/Genetics100522

Notice is hereby given that the state of late Felino Sajo Sevilla was extra judicially settled with Waiver of Rights as per Doc. No. 139; Page No. 29; Book No. 01; Series of 2022, before Notary Public Atty. Caridad Grecia Cuervo in Pasay City, Philippines

'Carmageddon,'

from SI/1

School bus operators were among those severely affected by the pandemic, and their closure has affected the transport supply, Mr. Siy said.

"Many school bus operators have gone out of business. Two years without any income forced some operators to dispose of their vehicles," he said.

Those who survived have increased their rates, forcing parents to opt out, said Jose Regin F. Regidor, a research fellow at the University of the Philippines' National Center for Transportation Studies.

"This is to make up for the increase in fuel prices and vehicle maintenance as well," he said. "The last two years when schools operated online were a backbreaker for many school services."

Mr. Regidor expects most parents not to use a school bus service due to virus fears.

"The return to face-to-face classes this school year will perhaps help determine if the pandemic will have a long-term effect on the industry or if the trust in school bus services will return in the short term."

The demise of school bus operations could lead to more private cars on the road, Mr. Siy said.

"Wealthier families will choose to use private motor vehicles to bring their children to school," he said. "Government and schools should encourage such families to shift to school and shuttle buses so that the roads fronting schools won't be severely congested during drop-off and pickup times."

"Families from the same neighborhood can pool their resources to organize school buses/shuttles to serve all students in their community," he added.

The state could also help school bus operators by waiving penalties

for failing to register or renew their franchises during the pandemic, Mr. Siy said.

They should also streamline the process for new operators. "If an incentive or subsidy can be provided to help them restart operations, that would also be a big help."

The country loses about P3 billion daily due to the traffic congestion in Metro Manila, according to the Japan International Cooperation Agency (JICA). This could balloon to P5.4 billion by 2035, it said.

Transport experts expect students and more workers to rely on ride-hailing services to get through traffic.

"The large deficit in public transport supply will mean more demand for ride-hailing services, though the cost could be prohibitive for most students," Mr. Siy said.

The country needs to boost public transportation capacity to address increased demand, Mr. Regidor said.

'ESSENTIAL SERVICE'

Calls to address the sad state of the country's public transport system began as early as March, with civic groups pressing the government to set up infrastructure support for commuters. Reclaiming roads from private cars and encouraging more people to cycle or walk would significantly cut traffic congestion, they said.

"All roads leading to schools should have safe pathways in the form of either car-free roads or very low speed limits, with priority given at all times to pedestrians and bicycles," Mr. Siy said. "Where needed, there should be protected bike lanes and sidewalks, even if some need to be created using traffic cones and plastic bollards."

Schools should also provide "end-of-trip" facilities for those who walk

or cycle such as bicycle parking and shower rooms, he added.

The Philippines should look at best practices in other countries, including "walking school buses" in Norway, which seek to improve students' health by encouraging walking and to save transportation costs, Mr. Siy said.

"Parents and local governments can organize assembly points for students willing to walk or bike to school; then, with school marshals, groups of students can walk or bike together in a group," he said. "Cycling in numbers or groups is a very good way to enhance the safety of cyclists."

Students and teachers should also consider studying and working at a nearby school, Mr. Regidor said.

"Still, mobility is a basic human need and should be given due priority and importance. Because public transport is an essential service, it should not be allowed to deteriorate or disappear."

He said the government should subsidize transport operators and drivers affected by the pandemic and rising fuel costs.

"If public transport services diminish, many Filipinos will not be able to get to their schools, clinics or other public services," he said. "The school year is a crucial challenge for our government."

Xander Xeballos, a student from Manila whose university has yet to enforce face-to-face classes, is worried about his commute next month, when daily physical classes will have been enforced.

"It would be better to limit in-person classes and spare us the hassle of daily commutes," he said. "Blended learning is still the way to go."