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Letter to the Editor

Innovation Hubs at the Heart of the Healthcare Ecosystem

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Innovation and technology have become indispensable pillars of progress in the field of health sciences. Over the past few decades, breakthroughs in healthcare have been closely intertwined with advancements in technology.[1] This symbiotic relationship has not only improved the quality of patient care but has also led to unprecedented advancements in diagnosis, treatment, and healthcare delivery. Health technology has become an essential component of modern healthcare due to rapid aging, vast knowledge translation, and the evolving economic healthcare ecosystem. Its impact is profound, particularly on patient care, disease prevention, diagnostics, rehabilitation, and self-management of the disease. As health technology continues to evolve, it is essential to address the challenges it brings, such as the gaps in turning ideas and ground-breaking research into usable products and systems while harnessing its potential to improve healthcare outcomes. Health technology holds the promise of a future where healthcare is more accessible, efficient, and tailored to individual needs, leading to a healthier and more vibrant society. Cognizant with the positive effect of innovation in the field of health sciences, determination of a potential hub or "home" to synergize ideas specifically for health is much needed.

With the HeaRTNovation funding program of the Department of Science and Technology, Philippine Council for Health Research and Development (DOST-PCHRD), the authors are establishing the University of Santo Tomas (UST) GRACE Hub (Generating Research Applications, Care, and Enterprise for Health) to lead the advancement of health research and product innovation by promoting and facilitating ideas and concepts to improve the quality of health care for all Filipinos. It will be a hub for the pre-incubation of health research products and systems, prioritizing the current PCHRD-funded research projects. As a future collaborative hub, the GRACE Hub will ensure that the healthcare products and systems are responsive to the needs of the community. During the first year, the general objective of this project is to establish the health innovation hub. To achieve this, the following are the specific objectives: (1) identify current and future health product and system innovations through collaboration among

health sciences cluster and hospital of the institution; (2) assist in formulating ideas through knowledge and implementation program with an up-to-date, reliable, evidence-based guide to inform and support innovation; (3) develop health innovators to transfer ideas into scalable projects and turn over to already established UST Tomasino Innovation Center through mentoring; (4) facilitate the sustainability of the health hub through benchmarking with existing local and international health hubs.

Health innovation hubs play a vital role in driving progress in healthcare by fostering collaboration, supporting start-ups, providing access to resources, facilitating research, and promoting user-centered design and regulatory compliance. In fact, nested within the health care system of the country, the Department of Health (DOH) also harmonized with the international plans related to health through their 8-point action agenda: *Bawat Filipino, Bawat Komunidad, Bawat Health Worker*. The creation of Health Hubs will focus on goals #1–*Bawat Pilipino ramdam ang kalusugan* and #3 – *Teknolohiya para sa mabilis na serbisyo*.[2] Moreover, grounded in this project is the acknowledgment of the Health Technology Assessment Council which is an independent advisory body created under the Republic Act 11223, otherwise known as the Universal Health Care Act, with the overall role of providing guidance to the DOH on the coverage of health interventions and technologies to be funded by the government.[3]

It is also essential to discuss the position of the innovation hub to empower the students, researchers, academic staff, and alumni. The positioning of such innovations requires a strategic approach that considers technological advancements, patient needs, healthcare provider capabilities, and societal expectations. Technologies such as artificial intelligence (AI), augmented and virtual reality, telemedicine, and wearable devices empower healthcare hubs to streamline operations, personalize patient care, and optimize outcomes. For instance, AI can analyze vast amounts of medical data to predict health trends or recommend personalized treatment plans, while telemedicine facilitates remote consultations, enhancing accessibility and convenience for patients. Therefore, positioning a healthcare hub innovation involves leveraging these technologies to enhance efficiency, quality of care, and patient engagement. Moreover, a patient-centered approach must be at the core of any healthcare hub innovation. Clients today expect healthcare services that are tailored-fit, accessible, and convenient. A well-positioned healthcare hub also understands and responds to the expectations of the society to offer top-notch healthcare products and systems that can be utilized by the community. Lastly, soft skill such as interdisciplinary collaboration will play a pivotal role as healthcare is increasingly complex, requiring collaboration among diverse professionals. A well-positioned healthcare hub fosters a culture of collaboration by creating shared spaces, implementing interdisciplinary care teams, and promoting continuous learning and knowledge sharing through design thinking. This collaborative approach not only enhances clinical decision-making and innovation but also enriches the overall patient experience by providing comprehensive, holistic care nested with the research agenda.

Together, we can create a culture where new ideas can flourish, and innovation can deliver better, faster, affordable health services for all. By strategically aligning these elements, healthcare hubs will not only enhance the delivery of healthcare services but also drive positive outcomes for patients, providers, and society. As we navigate the complexities of modern healthcare, these innovations hold the promise of transforming how we experience and perceive healthcare delivery in the future. Specific steps, such as creation of innovation officers within organizations, should be a priority. Let us make innovation work for health. Let us create health innovations that will work with us and for us. We are not removing humans from the equation, but we want to bring back

innovation towards the heart of the healthcare ecosystem.

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