

2018-2019 Health Technology *Success Stories*

Prepared for Minister of Health of World Health Organization (WHO) Member States
by IFMBE-CED¹, 2019

Dear Health Leaders:

Disease prevention, treatment, and rehabilitation is more efficient and effective when health services are provided with appropriate tools. Along with WHO, we recognize how important the use of health technologies (HT) is to successful outcomes for your healthcare delivery systems. In the [May 2016 HT resource document](#) prepared for the World Health Assembly (WHA), a recommendation was made:

Health technologies must be managed to ensure full clinical benefit and expected financial return on investment.

It is critical, therefore, that with limited resources, HT must be professionally guided. A new 2018 resource document - with links below – demonstrates this benefit from 400 case studies from 125 countries where management of medical devices (main component of health technologies) made a positive difference over the past twelve years.

The [2007 WHO WHA Resolution 60.29](#) urges Member States to create national health technology management plans in collaboration with biomedical engineers. WHO further clarified the definition of these personnel in 2017-2018 as part of a global survey² (http://www.who.int/medical_devices/support/en/) in coordination with IFMBE CED.

“Trained and qualified biomedical engineering professionals are required to design, evaluate, regulate, maintain and manage medical devices, and train on their safe use in health systems around the world².” These occupations have various names in different countries like clinical engineers, medical engineers, ... and related professionals and technicians. [WHO and IFMBE CED surveys have identified over 800,000 of these global professionals in 2018.]

¹**IFMBE-CED** is the International Federation for Medical and Biological Engineering (IFMBE)-Clinical Engineering Division (CED), currently representing clinical engineers (hospital-based biomedical engineers) in these roles in 180 countries. See more about CED at <https://ced.ifmbe.org/about-us.html>.

The case studies - in six categories - aim to formulate national strategies and plans to improve use of health technologies and better manage costs. In several countries, this has best been achieved by developing a Health Technology (HT) Unit at Ministry of Health level with clinical engineering leadership. The studies provide clear evidence that health technology is beneficial; at times, presenting complex systems that must be effectively guided and managed for optimal impact to be realized.

Innovation	Access	Management	Health Systems	e-Technology	Quality & Safety
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The full paper with active links for each story was published in the [Global CE Journal Volume 1](#) in October 2018.

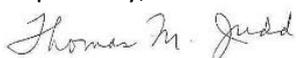
The case studies are actually *Health Technology Success Stories* that demonstrate, in a limited resource environment, that it is desirable to include professional HT expertise, such as clinical engineers, in national decision-making in order to maximize health systems' services. Case studies from the above Active links demonstrate these benefits:

- **Access:** The Ministry of Health HT Unit-led project in Albania that doubled access to critical diagnostic services, e.g., CT Scanners, MRI, and angiography imaging, while reducing equipment downtime to zero, and significantly reducing cost.
- **Health Systems:** Improved coordination between multiple stakeholders in the National Laboratory and its satellites in Colombia, led by Ministry of Health clinical engineers who partner with experts from academia and industry.
- **Quality & Safety:** A clinical engineer-led 122-hospital program in the Shanghai region that cooperates with official, industry and academic entities, resulting in improved device user satisfaction, tracking of emerging technologies, and closer partnerships with industry.

Recommendation: To encourage the availability, recognition, and increased participation of clinical engineers as part of the health workforce in your national healthcare delivery programs².

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Respectfully,



Thomas M. Judd

IFMBE-CED Board Chair, <http://cedglobal.org/organization-and-teams/>