

Editor's Corner

CE Vision 2022 – Year of the Child

Greetings, fellow CEs around the globe. First, I commend and thank each of you for the hard work and enormous contributions you've made to saving lives and conquering this vicious pandemic. It has been – and continues to be – a rewarding and humbling opportunity to work with you this past year to solve the endless waves of HTA and HTM challenges. WORTHY WORK! This is why we chose the CE profession, isn't it?

I would like to share a fresh idea of renewal for us to consider and embrace: creating a "CE Vision 2022 - Year of the Child" action plan. The global COVID-19 pandemic spanning 2020 and 2021 has been terribly hard on children. While the Coronavirus hasn't claimed many young lives directly, birth rates have plunged around the world, children have suffered from loss of parents, grandparents, immense social and school isolation, daily fear, and unemployed parents everywhere have been hard pressed to provide basic food and healthcare for their kids.

Children are our future, our hope, our path to enduring survival! During this pandemic, though, children and their very childhood have been threatened worldwide like no time in recent history.

What can WE do? I think we can focus some of our collective time and energy to improve health and welfare for children a bit at a time in the coming years. How? Well, we might start with ideas and actions that support our CE colleagues in Children's Hospitals, and also supporting pediatricians, family physicians, and midwives, who do the lion's share of medical for children around the world.

A little background: my career began in 1975 at ECRI, and my first field assignments that year were at Philadelphia's Children's Hospital, testing and servicing the equipment in the Neonatal Intensive Care and Pediatric Intensive Care Units. Those weeks of time working with nurses, physicians, and fellow engineers left an indelible image in my mind's eye: the primal struggle of a tiny life

clinging to each breath and heartbeat. Over the decades, in the course of various educational and humanitarian relief efforts I have had the privilege of visiting NICU and PICU units throughout the US, and in China, India, Mongolia, Romania, Slovakia, and elsewhere. Every visit brings back the intense reminder of why I am a Clinical Engineer: to save lives and improve the human condition whenever, wherever, and however I can.

Back in the mid-90s, I had the exciting opportunity to hear Dr. Jonas Salk deliver the opening keynote speech at "Child Health 2000: 2nd World Congress and Exposition" in Vancouver, Canada from May 30-June 3, 1995. Dr Salk died barely a month later, and this, his final public speech, was a clarion call: let us all do everything we can to assure safe and healthy kids by the year 2000!

On behalf of ACCE, I led a panel with Bob Morris titled Global Approach to Appropriate Technology for Maternal and Child Health on Technology Assessment and management at the Congress, which you can still read in two archived ACCE newsletters.^{1,2,3} I must admit that I left that conference quite humbled, however. I came to understand that child and mother mortality depended on far more simple things than ventilators and monitors. I was struck by the simplest of ideas presented. For example, one product was a small cereal-box sized kit with a bar of soap, a plastic drape, a clean razor blade, and a length of twine. i.e., a simple baby delivery kit to keep the mom and baby off and dirt floor and provide a modicum of sanitation for mother and child!

During the following decades, during my travels to many bare-bones hospitals and clinics I repeatedly humbled by the heroic efforts to care for children with woefully inadequate resources. Two examples that stick in my mind were 1) seeing three preemies tucked in a broken incubator with the doors wide open to compensate for the failed thermostat, and the oxygen plumbed in through plastic tubing from a welding oxygen tank 40 feet away,

and 2) a heartbreaking discussion with a post-surgical pediatric recovery team which was experiencing nearly 100% mortality despite their best efforts.

Only a few years later, in 2003, my own premature daughter's life was saved by a new medical gas, nitric oxide, that my team had the privilege of introducing to the US in the late 90s. It was only a mere stroke of luck that the hospital had just introduced that technology, or she may not have survived. These many child health technology challenges – and opportunities – have persisted can be found in every corner of the world, as documented by our colleagues like Tom Judd in 2016 in collaboration with WHO.³

It is now 26 years since that 2nd Child Health 2000 Congress in Vancouver, and, yes, we have cell phones and apps, and we have access to many training and research resources, but the child and maternal mortality rates are still unacceptably high, even in the US.

As I mentioned at the beginning, we cannot ignore the horrors that this COVID-19 pandemic is creating for newborns and children around the globe. The second Coronavirus surge in India this spring, for example, will leave a huge number of babies and children without one or both of their parents, and the national hospital resources are terribly depleted. This is presenting yet another terrible child health crisis that cannot be overlooked.

I have written this editorial to suggest that we, the Global Clinical Engineering community lean in and lock our shoulders together through GCEA, IFMBE CED, the Healthcare Technology Foundation, and our vast network of global colleagues, friends, and partners like WHO, PAHO, UNICEF, and many others to improve Child Health beginning in 2022 and beyond.

How? Following our upcoming ICEHTMC global congress in Orlando, let's begin holding a monthly "Global Clinical Engineering Year of the Child" collaboration meeting on the first Tuesday of every month with Zoom, during which we can set global and regional priorities. Let's set up a dedicated CE Child Health WhatsApp group to communicate and collaborate, too!

Sanitation and education could be a humble start, but we can do more. Perhaps we can create a global CE resource for children's hospitals, nurses, physicians, and midwives to access training literature. Perhaps we can work with WHO, UNICEF, and others to tackle essential product and training resources that match language and cultural norms. Perhaps we can invent a creative supply chain to source donations, parts, or equipment. Perhaps we can become a CE resource for the many government and faith-based relief agencies who work to save children's lives each and every day. Perhaps, too, we can make a point of inviting one article on Child Health for this Global Clinical Engineering Journal? And why not make this a resounding theme of our upcoming ICEHTMC Conference in Orlando in September, too?

Let's stand up and be counted as a Clinical Engineering community, proclaiming to the public that we can and will make a difference in Child Health. Let us commit to each other to ensure that our Clinical Engineering profession makes meaningful improvements to Child Health by carving out a piece of our time and energy every month in order to make a difference together.

It is not impossible! As the old adage tells us: "A journey of a thousand li begins with a single step."

REFERENCES

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