

# EMERGING TRENDS IN HEALTH PROFESSIONS EDUCATION IN THE CARIBBEAN

Medical education represents the future of medicine

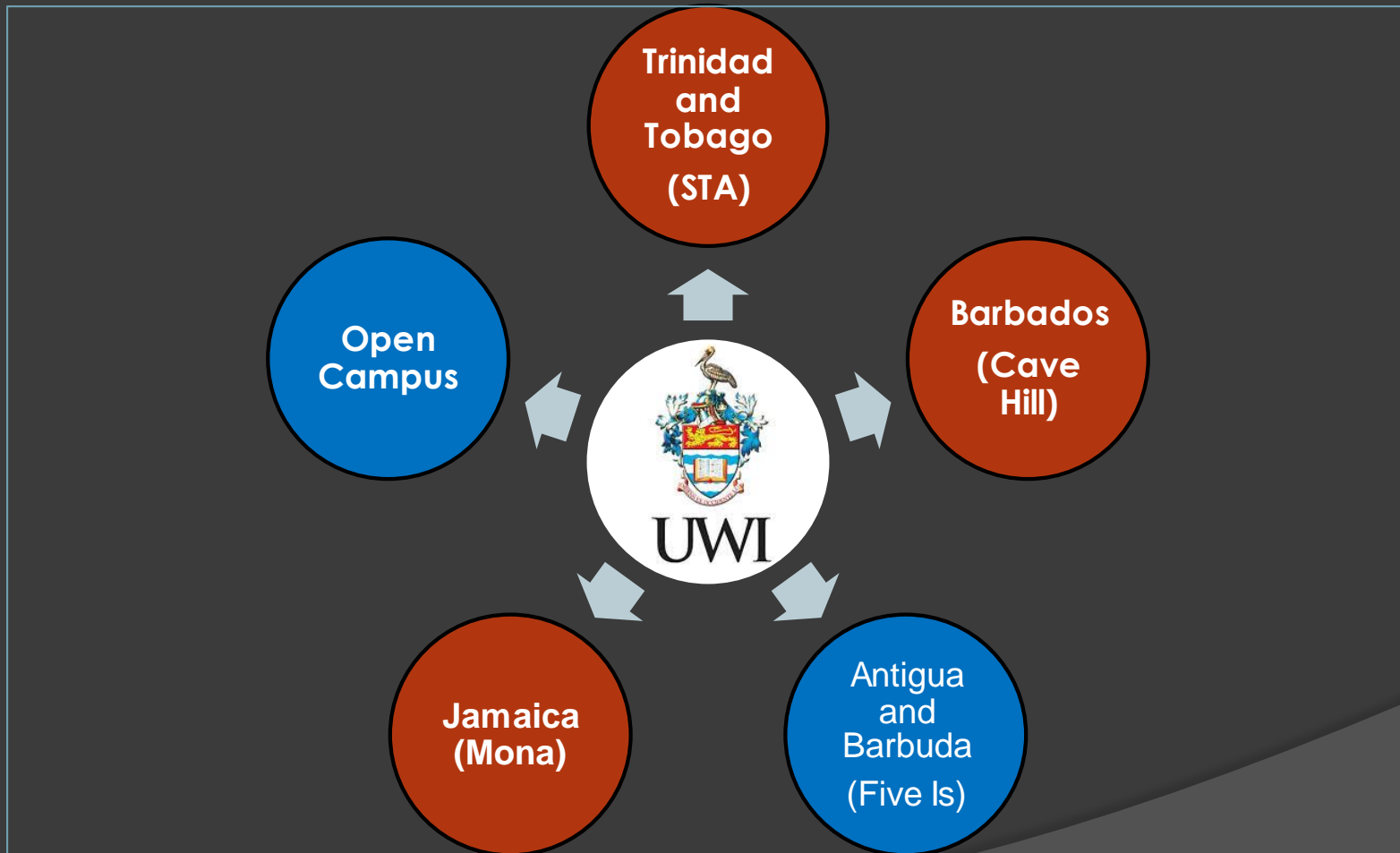


Terence Seemungal PhD CCST FRCP FACP  
Professor of Medicine and Dean  
Faculty of Medical Sciences, UWI

# Outline

- A Brief Look at Health Education at UWI
- Roles and Responsibilities
- Trends –
  - changes in practice patterns
  - changes in the role of the doctor
  - science and innovation in medicine
  - technology
  - preparing doctors to be future-ready doctors.

# LOCATIONS



# ROLES AND RESPONSIBILITIES

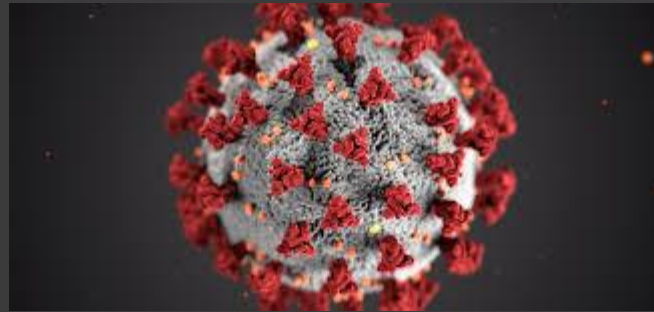


- ① **Prepare** - Medical education seeks to prepare students for a dynamic healthcare market
- ② **Inculcate and develop beliefs, values and priorities** - students of the field take with them from the institution, while at the same time, they also have their own set of beliefs, values, and priorities
- ③ **How can we best train professionals who will care for us and our family in the future?**

# AREAS EMPHASIZED IN THE UWI MEDICAL CURRICULUM

- Ethics & Society (non-analytical, humanistic skills)
- Analytical thinking – physiology, pathology and clinical decision-making
- Technical skills
- The final exit exam – tests history-taking, examination skills, a technical skills, recall of factual knowledge and clinical reasoning

# The Game-Changer



*When life turns you  
UPSIDE DOWN...*



*simply  
adjust  
your  
view*

*That's what successful people do!*

*~Doug Firebaugh*

# THE HEALTH PROFESSIONAL OF THE FUTURE

- ⦿ Easy access to biomedical information (recall not as important)
- ⦿ Physician challenge would be to select the right information from a surplus of options
- ⦿ Artificial intelligence will reduce the efforts required by physicians to interpret digital data and improve their ability to establish a diagnosis and prognosis
- ⦿ Therefore, the non-analytical, **humanistic aspect** of medicine will come to be more emphasized because it is hard to replace it with technology

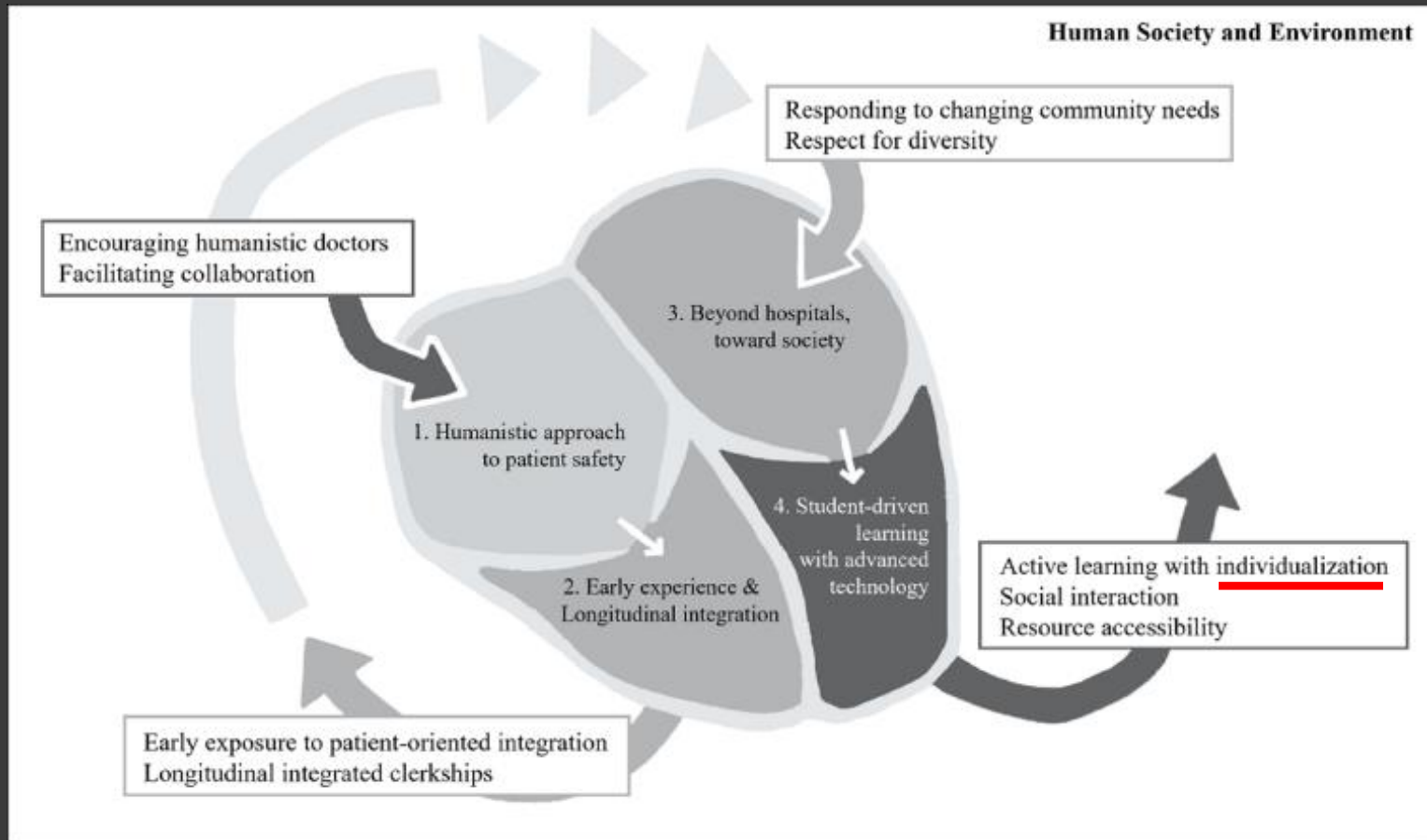


## Flagging Birthrate - Japan boosts AI funding to match lonely hearts



<http://www.msn.com/en-xl/news/other/japan-boosts-ai-funding-to-match-lonely-hearts/ar-BB1bHskh?ocid=DELLDHP17&li=BBKxOg5>. Accessed 7<sup>th</sup> Dec 2020

# ADVANCED TECHNOLOGY AND AI WILL BE AT THE HEART OF MED EDUCATION



# Augmented Reality (AR)



Augmented reality (AR) is a technology that superimposes a computer generated image on a user's view of the real world, thus providing a composite view



*Educators have repeatedly argued that present approaches to teaching and structuring learning environments are inadequate to addressing and supporting twenty-first century learning needs..... Carneiro, 2007*

# THE SOCIAL CONTRACT

- Beyond hospitals, toward society – The Social Contract
- Collaborative practice essential – post-COVID syndromes are an excellent example of this.....
- life-long learning – in essence the final exam is a myth – but it is a myth that will survive for a few more years
- AI / AR and ICT

Mullen F. *JAMA*. 2017;318(2):122–123.

*Report from a Convening of Grantees on Educating and Training to Professionalism*. Josiah Macy Jr. Foundation, Institute on Medicine as a Profession; 2018.

# COMPETENCY-BASED VS. TIME-BASED HEALTH PROFESSIONS EDUCATION

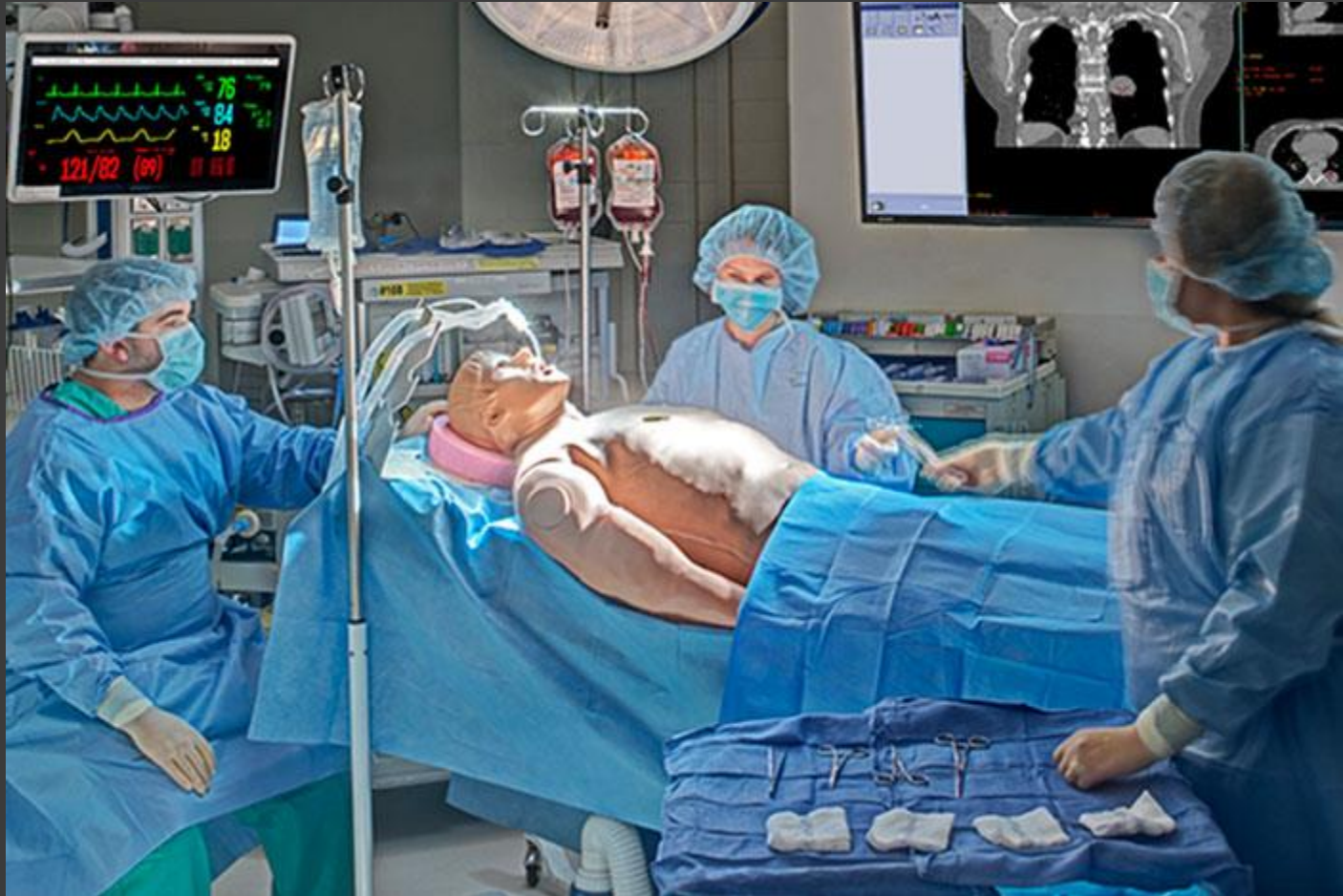
- ⦿ If asked we always say that our system or education is competency-based
- ⦿ In fact it is time-based
- ⦿ “...competency-based education begins with an uncompromising focus on translating the needs of contemporary society for improved health care into competencies that must be mastered by health professionals across all disciplines”
- ⦿ This must be accompanied by robust assessment – this will benefit society.

# TECHNOLOGY

- ⦿ E-Learning – the one change that has come over cataclysmically following COVID
- ⦿ Besides being engaging and interactive, e-learning has come across as a flexible learning method for students getting access to world-class learning material despite geographical restraints.
- ⦿ This global trend is catching up as an unrivalled alternative to traditional learning methods by connecting the learner directly to a subject matter expert
- ⦿ Role of e-Labs



# SIMULATION TRAINING



- Simulation training is now in use at the Nat Univ of Singapore Centre for Healthcare Simulation
- Offers the students practical, hands-on experience in a safe and realistic manner and therefore allows for an enhancement of patient.
- Students also have access to virtual anatomy, as a new, additional mode of learning anatomy. The students say that this improves on the old way of learning anatomy by giving them a very vivid three-dimensional perspective.
- Previously, we studied anatomy from two-dimensional atlases and brain dissections. But in dissections, sometimes we damage or disturb certain structures through our lack of physical dexterity.
- In the virtual world, you can peel away layers and appreciate the three-dimension structure.
- This is part of the future that I see for us here in health sciences in the Caribbean



# TECHNOLOGY SUPPORTING HEALTHCARE



- ⦿ This includes scans, robotic surgery, electronic medical records (EHR) and genomic medicine. Students are already learning how to use EHR. In some services, they can access the hospital's EHR under supervision.
  
- ⦿ I should say that technology will never replace the human touch. Technology may facilitate care, but it cannot replace the heart of medical practice: the doctor-patient relationship and our ethos of care. More than ever, our patients want our care, compassion and reassurance, and this cannot be given by machines.

# INTERPROFESSIONAL EDUCATION (IPE)



- ⦿ Allows for better preparation of health professionals for future collaborative practice in the best interests of our patients
- ⦿ The practice of medicine is more and more dependent on teams of professionals caring for complex patients and patients with multiple chronic conditions
- ⦿ The Walk-the-Talk Initiative at the North Central Regional Health Authority in Trinidad

# WHY HASN'T IPE GAINED MORE TRACTION AT UWI?

- ⦿ logistical obstacles - timetabling
- ⦿ strong cultures of each of the professions,
- ⦿ the political dominance of physicians who as a group did not embrace IPE,
- ⦿ and the lack of a sense of urgency about changing the design of the health-care delivery system

# HOW CAN WE CHANGE THE 'TIDE' AGAINST IPE?

- State/NGO-sponsored grants for research by IPE groups or into topics involving IPE
- Leadership from the top is essential
- IPE learners to be engaged through meaningful collaborations
- Faculty Development also essential

# SUMMARY: THE FUTURE OF HPE IN THE CARIBBEAN

- ⦿ More emphasis on humanistic skills
- ⦿ Adv Technology and AI will be at the heart of HPE
- ⦿ Augmented Reality will replace a lot of didactic teaching in HPE
- ⦿ The Social Contract will be enhanced by more emphasis on life long learning and IPE
- ⦿ Competency-based HPE may replace time-limited HPE in the long term
- ⦿ E-learning is already commonplace in just 1 year
- ⦿ The change to simulation training will be costly but it will enhance patient safety



ありがとう  
Sağ ol  
благодаря  
Salamat  
Tak  
спасибо  
d'akujem  
Grazie  
Dankie  
Danke  
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謝謝  
Mauruuru  
Gracias  
Dankon  
Kiitos  
Na gode  
gràcies  
Grazas  
Merci  
eskerrik asko  
terima kasih  
köszönöm  
Grazzi  
ju faleminderit

Thank you!



<https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-019-1891-5>

- ◎ Aspects of humanism in medical education that we will have to emphasize more in the future: medical students will become more humanistic and collaborate with others for patient safety, providing patient-oriented integration earlier and longitudinally, encouraging them to respond to changing community needs, respect diversity, and facilitate student-driven learning with the aid of advanced technology