



HEALTHCARE REFORM AND THE ROLE OF TECHNOLOGY

Dr. Carissa Etienne
Director, Pan American Health Organization (PAHO)



The 43rd Sir Winston Scott Memorial Lecture
Monday, November 26, 2018
Frank Collymore Hall
Tom Adams Financial Centre



I am especially honoured to be with you here today on this auspicious occasion: and I am truly humbled to have been invited to deliver the 43rd Sir Winston Scott Memorial Lecture here in Barbados. I accept this invitation with great humility and an enormous sense of personal responsibility.

It will not be easy to fill the shoes of those that have come before me in this forum, and to honour an outstanding son of the Caribbean, Sir Arleigh Winston Scott, a leading medical practitioner who also made history as the first Barbadian to hold the position of Head of State of Barbados.

One will ask why a clinician, a specialist, holding academic degrees from renowned universities, such as Howard University in the United States, and the University of Edinburgh in Scotland; who worked as a visiting ophthalmic surgeon in Harlem Hospital during his time in New York, and who established the Woodside Memorial Clinic on his return to Barbados, was so interested in the linkages between public health and policy? Allow me to say that he was a visionary in his time, a man whose commitment to health and well-being of a nation set the country on a path to sustainable development, with the health and wellbeing of its people at the center of his vision, and its policies!

Public health policy is central to the topic that I will deliberate upon here today: “Health Reforms and the Role of Technology.” I applaud the Central Bank of Barbados for having accepted this topic this year and for its continued commitment to the memory, values and vision of Sir Winston Scott. Your deliberations in the fields of Economics, Science, Culture, Health and Religion, makes the Annual Sir Winston Scott Memorial Lecture a landmark Caribbean forum that informs stakeholders, policy-makers and the public, and encourages social dialogue throughout this great region.

Ladies and gentlemen, as you know, health, and healthcare reform is core to the very essence of the work of the institution that I have had the privilege to lead over the last 6 years – the Pan American Health Organization. When I received the invitation to address you here this evening, to speak to the issue of “Healthcare Reform and Technology,” I couldn’t help but think of the unique history of this Region and of PAHO – our continuous work with policy makers, governments and civil society throughout the Americas in promoting the development of more equitable and inclusive societies – societies where the right to health for all, is yet to be fully implemented.

Permit me to take this opportunity to tell you a little about the Pan American Health Organization.

PAHO wears two institutional hats: it is the specialized health agency of the Inter-American System; and also serves as the Regional Office for the Americas of the World Health Organization (WHO), the specialized health agency of the United Nations.

It was created in 1902, just around the year Sir Winston Scott was born! PAHO was established after a yellow fever epidemic struck Brazil, Paraguay, Uruguay, and Argentina. Within 8 years, the outbreak had spread to the United States, where it killed more than 20,000 people.

Originally, the Organization's efforts were focused on the control of the spread of epidemics from one country to another, in order to protect people's health and the national economies. Today, PAHO's mandate has expanded; we not only strive to protect and promote health, but we work arduously to ensure that all people have access to the healthcare they need, when they need it, with quality and without having the fear of falling into poverty.

Through its work, PAHO promotes and supports the right of everyone, everywhere, to health. Under the leadership of its 52 member states and territories, PAHO sets regional health priorities and mobilizes action to address health problems that respect no borders and that, in many cases, jeopardize the sustainability of health systems

I have the privilege, and the responsibility invested by the member states of PAHO to serve these countries as Director of PAHO, now into this, my second term.

During its more than 115-year history, PAHO has played a key role in important hemispheric health achievements. Average life expectancy has increased by 35 years since 1902. Smallpox, measles and polio have been eradicated from the Americas. The Caribbean was the first sub Region in the Americas to have eliminated smallpox, polio, measles, rubella, congenital rubella syndrome. We have witnessed major reductions in infant, child and maternal mortality, with substantial reductions in the impact of neglected diseases such as leprosy, worm infestations, diarrheal diseases, tuberculosis and malaria. The first country in the world to have been certified by WHO as having eliminated the mother to child transmission of HIV and syphilis was Cuba followed by six other countries and territories in the English-speaking Caribbean.

Health systems have become more inclusive resulting in a significant expansion of health coverage for peoples throughout the Region. And countries have developed capacity in preparedness and response efforts in the face of major disease outbreaks and health emergencies, to mention a few. The Caribbean, with PAHO support, has been implementing a programme for building safer and greener health facilities, contributing to resilience of the health system.

Ladies and Gentlemen, I would like to reflect on the question: What do we mean by ‘health reform’? And what type of reform process produces the greatest impact in terms of health and wellbeing?

Health reforms can be defined as processes aimed at introducing substantive changes to health systems through their various institutions, levels, and functions, with the ultimate goal of better meeting the health needs of the population. And when we think of a health system, we must think holistically, not just of the bricks and mortar of clinics and hospitals, but – as the World Health Organization (WHO) states - of *“all organizations, people, and actions whose primary intent is to promote, restore, or maintain health”*. In other words, a health system is made up of all actors that carry out health-related activities, in the sphere of personal or collective health, public health services, or intersectoral initiatives whose main goal is to improve the standard of health of individuals, communities, or populations.

Perhaps the greatest health gains we have observed globally, in the last century can be attributed to substantive health reform processes instigated by countries over the last 40 years, aligned with the vision of a landmark declaration in health – the 1978 Alma-Ata Declaration on Primary Healthcare. This declaration, and the movement it generated, has fundamentally changed the health and wellbeing of our peoples in this region and beyond.

The Alma-Ata Declaration of 1978, a landmark and historic declaration in health, provided a vision and road map for countries to strengthen and reform their health systems to achieve the bold target of *“Health for All”*. The Alma-Ata Declaration was a historic milestone that reaffirmed the right to health, with equity and solidarity as core values. It was a call for urgent action by all governments, health and development partners, and the world community in general to protect and promote the health of all people.

This was the first international declaration highlighting the importance of primary healthcare, as the corner stone of healthcare delivery in the modern era and which sparked an era of major public health reforms.

Alma-Ata resulted in the launch of the concept of essential medicines, those medicines that all health systems must provide to in order to safeguard, promote and protect health. Alma-Ata was the beginning of an era where in many countries the differentiated needs of women and children were finally recognized, with the targeted delivery of health services and technologies that would result in significant advances in maternal mortality and health, and child mortality and health. Alma-Ata called on governments to assume responsibility for the health of its peoples, to ensure that health systems reach people, and to provide comprehensive health services based on people’s needs. Alma-Ata resulted in a movement world-wide, and indeed

within this region, to expand access to healthcare for all. In the Caribbean these reforms began in Dominica following a disastrous hurricane in 1979 and from there spread to the rest of the Caribbean. Barbados began its reform during that period, to strengthen the capacity of its first level of care to deliver quality solutions which led to the development of the polyclinics. Despite a counter-movement in the late 1980's and early 1990's, the countries re-embraced the core values and principles of primary healthcare in 2004, leading to the foundation of our health systems today, that have as an overarching goal, Universal Access to Health and Universal Health Coverage (Universal Health).

By Universal Health, we mean that everyone, irrespective of their socio-economic background, ethnicity, gender or race, is covered by a well-financed, well-organized health system offering quality and comprehensive health services, be they promotive, curative, preventive, rehabilitative or palliative. It means the removal of barriers to access health services – be they physical, geographic, cultural, economic or gender. It means that people should be protected against financial hardship. And it means that no one who needs care should become indigent, or lose their home, or decide to forgo care because he or she cannot afford to pay.

It means that people have access to the social determinants of health, to achieve their human potential and live dignified and productive lives.

History has shown us, Ladies and Gentlemen, that the most effective health reforms, measured in terms of improving access to health services, eliminating barriers, protecting health, and promoting greater inclusion, are those reforms that seek to promote Universal Access to Health and Universal Health coverage, through the primary healthcare approach. This applies to rich and less well-resourced countries alike, to large and small countries, and to federal and non-federal countries. Health reform – or what we prefer to call at PAHO, health systems transformation – is achievable, by setting the goal of universality, equity, and the right to health. Health systems transformations must aim to expand access to comprehensive healthcare services through integrated networks; to increase public financing, the pooling of resources, and the progressive elimination of out of pocket expenditures; by strengthening governance and stewardship in health.

And health systems transformation must address the social determinants of health.

A few weeks ago, I witnessed and led a global call to action to make Health for All a reality in the 21st Century. Health officials, civil society organizations, youth representatives and other interested groups of 129 countries met in Astana, Kazakhstan for the historic Global Conference on Primary Healthcare, which marked 40 years of the Alma-Ata Declaration and the bold target of Health for All.

Coming out of this global conference, I have renewed hope and commitment for the future, and more importantly, I am convinced that primary healthcare is the way to go for 40 more years and beyond. The primary healthcare approach is the only approach which will lead to the achievement of Universal Access to Health and Universal Health Coverage. This goal is embedded in SDG 3 (Sustainable Development Goal) of the Agenda 2030 – Health and Well-being for All, at all ages.

Please allow me to share with you what the primary healthcare approach means, and why I, and the organization that I represent, have embraced primary healthcare in all its core mandates.

Primary healthcare is an approach and a strategy for health and well-being, for human and social development which is centered on the individuals, their families and the communities. It is not merely the first level of care, nor is it the provision of a limited package of services for the poor. Primary healthcare calls for universal access to quality, comprehensive health services not only curative but for promotion, prevention, rehabilitation, palliation and treatment of common conditions. It calls for addressing the social determinants of health.

It calls for removing all types of barriers to access, including financial, geographical, cultural, gender. And it requires state action. Without state action, there is no right to health, especially for those living in situations of vulnerability. Indeed, without state action we cannot make progress in social cohesion.

Let me pause to correct a serious misconception that continues to plague and divide the healthcare delivery community. This relates to the question regarding programmes and systems, the so called vertical versus horizontal debate, and that the role of hospitals is diminished within the primary healthcare approach. We need both vertical and horizontal approaches that are integrated and coordinated around meeting the healthcare needs of a community and the general population. Hospitals that are efficiently run and resourced to deliver quality care and which function within an integrated network are crucial for the attainment of health goals. Investments in hospitals are essential but within a balanced approach and not to the detriment of the first level of care, where prevention, promotion and highly effective primary services are delivered more cost effectively.

The advancement of science and technology will be critical if we are to achieve the goal of Health for All in the 21st Century. Indeed, universal health cannot be achieved without ensuring universal access to health technologies. Here I am referring to the *"application of organized knowledge and skills in the form of devices, medicines, vaccines, procedures and systems developed to solve a health problem and improve quality of lives"*.

Health technologies have allowed us to protect our children against measles, mumps and rubella and many other vaccine preventable diseases; have given us the wonderful opportunity to monitor the growth of a new life in a mother's womb; have saved countless lives through the development of antibiotics; and have stymied the onslaught of global epidemics such as Tuberculosis, HIV/AIDS, and indeed Ebola.

Health technologies have allowed us to carry out life-saving transplants, open heart surgery, and now key-hole surgery. They have allowed us to advance against one of the biggest killers, targeting cancer through radiology, nuclear medicine, the development of cytotoxic drugs, and new biological therapeutics. And health technology has allowed us to improve healthcare delivery, through diagnostic technology, prosthetics, and telemedicine that supports healthcare delivery, and through the development of electronic patient records that ensure continuity in care. Technology is allowing us to address both our collective and individual needs. Technology has led to the development of simple apps that link us to our primary care provider; and it facilitates the use of Big Data and artificial intelligence that allows us to monitor behaviours in health, through structured or non-structured data at the population level, guiding future public health policy decisions.

Technology drives change, and change instigates transformation. Technology has revolutionized healthcare throughout history, through the discovery of the origin of vaccine inoculation by Jenner in the 18th century, in the field of microbiology by Koch in the 19th century, or indeed through the accidental discovery of penicillin by Fleming in the 20th century. Technology drives scientific discovery, and the generation of information and best evidence. And in doing so, it generates capacity within systems - educational, scientific and health systems. It supports the generation of capacity within our health workforce, to deliver highly resolute and people-centred care that is built on evidence-based guidelines, and treatment protocols. And it provides us with the tools – the medicines, vaccines, diagnostics and equipment – to deal with the challenges in health of the 21st century.

But ladies and gentlemen, there is a caveat here – and a very important one at that. While we acknowledge that technology is critical to achieving future advances in health, we must also acknowledge that not all technology provides real benefit over that which already exists! We have seen a proliferation of health technologies in recent years, some of which only provide incremental improvement over that which exists already – but at an enormous cost to the health system! Or indeed we have seen new technologies being promoted that in fact provide no added value over that which already exists.

Even worse we see the negative effects of technology and globalization leading to the rapid expansion of communicable diseases, chronic non-communicable diseases, climate change and

its health and other related effects, the rise in deaths and disabilities due to violence and road traffic accidents. These are very relevant for the Caribbean.

This is a real challenge for health systems, and policy makers. How do we really assess the true and added value of technology within our systems? I am not sure we have the answer to this question as of yet. We are making strides however, in the development of capacity in health technology assessment, the process by which we examine the comparative properties and effects of a health technology, including its direct and unintended consequences, to inform better decision making. We at PAHO have led the way in this field, being the first regional office of WHO to have held a policy dialogue with member states on the role of health technology assessment on decision making within health systems, resulting in the establishment of a multi-country network with the participation of over 30 expert institutions dedicated to this task, throughout the Americas. This issue is a major challenge to the future sustainability of our health systems, as countries struggle to assess the true value of technology in health, and as technology costs continue to increase exponentially.

And once decisions relating to the incorporation and use of a health technology are made, we also need to ensure quality, safety and efficacy through the life cycle of the technology. Once again, I believe we are on the way to addressing this question. PAHO has spearheaded an increase in regulatory capacity throughout the Americas. We have established review processes that examine the capacity of national regulatory authorities whose prime responsibility is to ensure the quality, safety and efficacy of the health technologies. Through the assessment of core functions in registration, good manufacturing practices, clinical studies, and post marketing surveillance, amongst others, national regulatory authorities in the Americas are making strides to improve the quality of products in circulation in local markets. Here I must also note that in the Caribbean, we are developing a regional approach, through the development of the Caribbean Regulatory System (CRS), in conjunction with CARPHA and with the support of the Gates Foundation. The CRS has established a regional product registration process where individual countries can use a regional review process through the CRS to expedite market authorization at the national level. It is through joint collaboration, and the leveraging of collective capacity, that the Caribbean can ensure access to safe and quality health technologies.

Dear colleagues, we are in the midst of an unprecedented technological revolution and globalization that is a defining characteristic of our time. Science now allows us to carry out feats unimaginable only 20 years ago. Health information has become more accessible to individuals through our mobile platforms, and can empower individuals, families and communities to take action for their own health and that of their communities. And as the era

of Big Data advances, we will have at our disposal enormous databases of information that we can mine and research that hopefully can lead us to generating more evidence on social policies, and more effective treatments in some key critical areas such as cancer. The 21st century has been called the knowledge era, and for sure there is information now everywhere. What we do with that information will be key to our healthcare decisions and to the decisions on the healthcare reforms that are needed to achieve health for all.

I am confident, that science and industry will continue to contribute to improving the health and wellbeing of our populations. But what I truly hope for, and see, is the potential for social innovation leading to a shift from the more traditional supply side health systems to health systems that meet the needs and demands of the individual, community and society; systems that innovate to ensure equitable access and not simply coverage; a paradigm shift to empower individuals in his or her own healthcare decisions, not just when talking to a doctor, but in every decision the individual will take that impacts his or her own health and that of the community.

Ladies and gentlemen, I am convinced that innovation is necessary to achieve positive change and transformation within our health systems, not just within the realms of science and technology, but also within realms of the humanities – in social science and economics, built on the premise of some core principles and values.

And so in looking to the future, towards the next 40 years and beyond, we must ask ourselves, how can we innovate to address the challenges of our times? How will we address the unacceptable levels of health inequities and social inequalities, the emergence and influence of new health problems such as the growing burden of non-communicable diseases, and the increasing violence and road injuries we are seeing? How can we respond to demographic changes reflected in the rapid aging of the population, the impact of climate change, and the impact of technology in our daily lives and our societies that can be negative if not well harnessed? And how can we transform our health systems and our models of care that continue to be predominately focused on diseases rather than on the needs of people and communities.

I believe we have the answers to these important questions. I believe that we can learn from the last 40 years, and from the lessons of reform processes gone by. I believe that by re-committing to the primary healthcare approach to achieving universal health, we have a framework for success in the future. And I believe that by concentrating on social and technological innovation within this framework we can reap once again enormous benefits in health and development for ourselves, and for our children.

But we need to act now, we need to demand and engage in national processes to build the health system our people deserve, the health system that can ensure health for all, everywhere, leaving no one behind.

Here are the 6 key actions that require our collective action – government, communities, the private sector, academia and civil society alike:

1. Firstly, **the shift toward a people- and community-centred care model should be the focus of health systems transformation in the 21st century.** That means the provision of comprehensive quality health services where people live and work. And for that, we need a revolutionary first level of care, one that makes rational and efficient use of technology and organizational innovation, including interdisciplinary health teams with a new cadre of personnel and skills mix, and making sure that medicines, technology, and the necessary infrastructure are available. A first level of care that is supported by an integrated health services delivery network, including hospitals and specialized services. This will require improving how health services are organized, to reduce existing fragmentation, strengthening coordination between different organizations and levels of care, including both, public and private sectors. We need a strong shift towards prevention and health promotion, which includes addressing the social determinants of health through intersectoral interventions. We need to improve disease prevention and early detection (particularly for chronic diseases) to reduce the incidence of catastrophic illnesses and improve quality of life.
2. Secondly, **health reforms require innovation in the way we do business.** They call for a strong leadership and political will to drive social dialogue, to institute and support collective action, to involve everyone. National governments must lead and own national processes towards universal health, in coordination with partners. It is crucial to include and empower non-state actors as well as other social stakeholders committed to furthering the cause of universal health. This should include the participation of social movements, health professionals, and academics, that help analyze, evaluate, produce, and manage knowledge. “Social dialogue” is both a tool and a platform for raising issues about access and coverage. The pursuit of equity in health demands strengthened social participation and community engagement. Leaving no one behind means making special effort to give voice to those that have not been heard. Those in conditions of exclusion and vulnerability, including women and children, youth, migrants and the poor, among others. The development of a people- and community-centred model of care enables the participation of people and civil society as key stakeholders in this process. This is

the time for innovative and creative strategies to enhance community and social participation, and to enable people to make optimal choices for their own health.

3. Thirdly, as stated in the 2030 Agenda for Sustainable Development, **the spread of information and communications technology and global interconnectedness has great potential to accelerate human progress**, to bridge the digital divide and to develop knowledge societies. Therefore, to avoid leaving anyone behind, we need to implement information systems for health that ensure the monitoring of quality, accessible, timely and reliable disaggregated data in our member states, overcoming preconceptions of information systems in the area of public health that are mainly focused on software development, isolated electronic health records applications, or compilation of some vital statistics. Information systems for health must be conceived as an integrated mechanism of interconnected and interoperable systems and processes that ensure the convergence of data, information, knowledge, standards, people, and institutions. Information systems that consider the current context established by the information society and the data revolution and can provide a general and realistic framework for having better and stronger decision and policy making mechanisms through health systems that ensure universal, free and timely access to data and strategic information, using the most cost-effective ICT tools (electronic medical records, tele-medicine, use of mobile devices to support case management and prevention).
4. Fourthly, all **health reform processes need to tackle the human resource gap in health**. The shortage of health workers, their inadequate distribution, and the need to ensure consistency between skills and job requirements in order to enhance efficiency of the sector require innovative solutions. It entails new regulatory mechanisms in the job market, a new understanding of professionalization aligned with innovations in the model of care, and processes of continuing education.
5. Fifthly, **health reforms will not be possible without more and better financing for health**. Investing in health systems that are equitable and efficient, including interventions to reduce segmentation. The benchmark for public financing of health has been set at 6% of GDP. This money is to be used efficiently, sustainably, and in a fiscally responsible way to expand access and reduce inequities through increase financial protection. Increased financial protection will reduce inequities in access to health, through a planned and progressive process with the growing use of collective mechanisms that tap into various sources of funding to replace out-of-pocket payments. There are many problems related to the multiplicity of insurers, in which risks and resources are not regulated or compensated, however, institutional innovations are

possible and necessary, and can be enabled by technology. Investments need to be done not only for the provision of healthcare for individuals, but also for public health services, and the strengthening of the essential public health functions and the resilience of health systems to tackle public health emergencies and the impact of climate change.

6. Finally, **a central feature of health reform is the development of intersectoral interventions** to address the social determinants of health, which are expressions of the health in all policies approach. From the development of mechanisms to regulate the production and consumption of mass-produced goods (e.g., the food industry, regulation of alcohol, drug and tobacco use, use of pesticides etc.) to curtail risk factors for the health of the population, to interventions that seek to expand coverage under the social protection systems.

Ladies and gentlemen, as I close my lecture, I am reminded of Sir Winston Scott, and in particular of his journey to promote health and development in Barbados, and within the Caribbean. I hope that I have remained true to his vision, in outlining our journey into the future, one that is built on the promise of Health for All.

And as we continue on this journey, allow me to ask you to fully embrace the commitments made to universal access to health and universal health coverage and allow me to ask you to spread far and wide the actions required of us all to ensure that reality.

Health is a right of the people, and the responsibility of government. Let us then make it so. Join the global and regional movement for Universal Health.

Seize this moment, as the actions we take now will have lasting impact for your health and wellbeing, and that of your communities. Become involved in your communities and participate, engage, and invest in comprehensive healthcare based on the primary healthcare strategy. Hold yourself, your government, providers, civil society and partners accountable.

Let us build a Caribbean community, a Caribbean movement. Let us call for a social compact where health and wellbeing for all is guaranteed, consistent with SDG 3.

We are in a world where connection, and connectivity, drives innovation and social change. Remain connected, participate and engage. Promote health and wellbeing, for yourself, your family, your community.

Let us make effective use of appropriate technology to transform our health systems and accelerate our achievement of health for all people leaving no one behind.

Ladies and gentlemen, this is urgent, the time is now. Thank you.