Health Action International Asia Pacific (HAIAP) Forum 2023

in collaboration with USM, TWN and IIUM

27th-28th May 2023

Dewan Budaya, Universiti Sains Malaysia

HEALTH ACTION FOR ALL: THE WAY FORWARD

August 31, 2023

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Welcome message:

Welcome all to our first HAIAP face to face gathering for many years. It is wonderful to see so many new faces among us. Some of our historical colleagues are unable to join us in person but they will join us electronically.

Telling the story of a social movement helps us remember the original vision, the strategic thinking and specific direct actions envisaged by the pioneers. It all began on one long night during the International NGO Seminar on Pharmaceuticals in Geneva, at the end of the historic 34th World Health Assembly (WHA), from 27-29 May 1981. The seminar was co-sponsored by the International Organisation of Consumer Unions (IOCU), an antecedent of CAP, and a German-based health activist group, BUKO (Bundeskongress Entwicklungspolitischer Aktionsgruppen). That meeting was attended by more than 50 organisations from 26 diverse countries from Brazil to Bangladesh including Gonoshasthaya Kendra from Bangladesh.

The birth of Health Action International (HAI) emerged from several streams of thinking and planning that went on well into the night of May 29. It was agreed that HAI would be hosted by the IOCU office in Penang, Malaysia, which acted as the 'clearing house' and *de facto* facilitator.

In the late 1980s, Dr Kumariah Balasubramaniam (Dr Bala) took up the position as Adviser and Coordinator of the Consumers International Regional Office for Asia and the Pacific (CIROAP), and moved to Penang in Malaysia, having been very active on Pharmaceutical issues in UNCTAD. Shila Kaur, already working in Penang, began working with Dr Bala when he took the position with CIROAP.

The HAI work was coordinated from the IOCU office by the Action for Rational Drug Use in Asia (ARDA) network that had been forging a new level of partnerships with other participating organisations in our region. An external evaluation of the ARDA network was positive about the need for the network in Asia and the Pacific regions and ARDA was advised to expand membership and work with more network partners.

So HAI grew out of the bosom of IOCU and in 2001 ARDA decided to relocate out of IOCU ROAP and to set up as an independent NGO based in Colombo Sri Lanka as HAI Asia Pacific (HAIAP). Dr Bala was appointed Coordinator.

Tan Sri Dzulkifli Abdul Razak (Dzul) relates having engaged with the Alma-Ata PHC principles when he was a student at USM and then going on to lead the USM's discipline on Social and Administrative Pharmacy where PHC was added as part of the curriculum. It was at this critical juncture that HAIAP was mooted as an important institutional body of like-minded activists and experts to join in the struggle to further advance PHC as part of the 'new' health education in Malaysia, and Asia-Pacific. HAI offices were also located in Europe, Africa and South America.

Dzul explains how the link developed between the new HAIAP hub and USM's newly developed Poison's Centre - the country's first - was giving tremendous advantage and expanded opportunities to root PHC in a more practical way. The Poisons Centre subsequently doubled as the WHO Collaborative Centre for Drug Information – both entities acting as service and advisory centres for the advancement and promotion of PHC, until today, with focus on the rational use of medicines for the public and professionals alike - nationally and regionally. The services broadened the understanding and the much-needed holistic view of health with emphasis on the contribution of health to economic and human development. While some of the goals set forth were met, not all had been envisaged yet by the initial 'Health for All' year 2000 goal. In 2010 Dr Bala retired and HAIAP returned to Penang with coordinator Shia Kaur who was based at TWN. When Tan Sri Dzul became the rector of IIUM in August 2118 the link with HAIAP was established there too.

On the special occasion of 40 years, we produced a book *'HAIAP at 40'* which is a chronicle of health heroes, historic events, challenges and victories.[1] This book covers many dimensions of the journey: the people, the places and the passions; the vision, the victims and the victories; and the initiatives, the inspirations and the ingenuity. Free copies are available here at the Forum. So here in Penang stories will be told and partnerships will be celebrated. New challenges will be identified, new friends will join us, and our way forward will be planned.

Dato' Seri Anwar Fazal
Beverley Snell
Health Action International Asia Pacific

[1] Download here
https://www.twn.my/title2/books/HAIAP%20at%2040.htm

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Dean Kulliyah IIUM **Prof Nuurzalina Abdul Karim Khan**

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'The importance of the ONE HEALTH approach to Antimicrobial Policy at National level: Case study of the Thailand AMR movement'

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Sri Lanka - Prof Manuj Weerasinghe
Kerala - Dr Ekbal Bappakunju

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FORUM - DISPENSING SEPARATION: IS IT MERELY AN ACADEMIC DISCUSSION?
Moderator: Prof Emeritus Tan Sri Dzulkifli Abdul Razak

Beverley Snell Award
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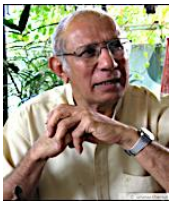
The way forward

Profiles: Speakers and Organisers

Dato' Seri Anwar Fazal is a founder of HAI and HAIAP and the founder and one of the prime movers of several other local and global citizens movements. Among them are the Consumers Association of Penang (CAP) founded in 1969, International Baby Food Action Network (IBFAN) in 1979 and Pesticide Action Network (PAN) in 1982. His determination and driving force helped establish the much-needed Consumer Interpol in 1981, a consumer and environmental alert system to monitor global trade in hazardous products and technologies.



His consumer activism ensured that issues such as appropriate infant feeding practices, pesticide hazards, and health and pharmaceuticals, were indeed consumer issues requiring urgent global action.

As President of the International Organization of Consumers Unions now known as Consumers International (CI) he ensured that the voices of the poor consumers in the developing world have been heard in international fora.

International recognition has included the Right Livelihood Award, popularly called the 'Alternative Nobel Prize' for his work in promoting and protecting the public interest in 1982; the title 'Activist of the Year' in 1983 by Ralph Nader's magazine, Multinational Monitor; and election to the 'Environmental Hall of Fame' by Mother Earth News. He was the founding director of and currently Chairman of, International Advisory Council, Right Livelihood College.

Professor Tan Sri Dzulkifli Abdul Razak (known as Dzul) is currently the Rector of the International Islamic University in Malaysia. He was the Vice Chancellor of Universiti Sains Malaysia (USM) from 2000-2011. He is the immediate past president of the International Association of Universities (IAU), a UNESCO-affiliated organisation based in Paris. He was the Convenor of the United Nations University-acknowledged Regional Centre for Expertise on Education for Sustainable Development based in USM, one of seven pioneering centres worldwide, beginning 2005. Dzul was awarded the prestigious 2017 Gilbert Medal by Universitas 21 in recognition of 'his long term commitment to a sustainable approach to international higher education.' He is a Fellow of the Academy of Sciences Malaysia (FASc), the World Academy of Art and Science (FWAAS) and the World Academy of Islamic Management (FWAIM). He won the Olle Hansson Award 1999. Since 1995, Dzul has been writing weekly op-ed columns for Malaysia's dailies especially *The New Straits Times.* The Government of Japan, in recognition of his contribution to the academic collaboration and exchanges between the two nations, conferred him the Order of the Rising Sun, Gold Rays with Neck Ribbon in September 2019. He serves as an Expert for the Futures of Higher Education Project at UNESCO's Institute for Higher Education (IESALC) based in Caracas, Venezuela.

Beverley Snell, current Honorary Coordinator of HAIAP, is a pharmacist who has specialised in essential medicines work within a public health and PHC framework, including refugee settings and humanitarian emergencies. Between 1981 and 1986, she worked in refugee and host communities in Somalia. Since 1990, she has contributed to the essential medicines sector in many developing countries, including Pacific Island and Mekong countries, on the ground and through program design and development of policies, manuals and texts. For 12 years she taught in the International Health stream of the Master of Public Health program delivered by the Burnet Institute Centre for International Health, for Monash University. She was awarded the Order of Australia Medal (OAM) in 2012 for her contribution to International Health.

Chee Yoke Ling is a lawyer and currently the Executive Director of the Third World Network, a policy research and advocacy organisation and home of HAIAP since 2011, which has its international secretariat in Penang, Malaysia. She has been very active since the mid-1980s, from the national to global level, focusing on trade, environment health and general development issues from the perspective of developing countries. Some focus areas of her work are public health and access to affordable medicines, in particular antimicrobial resistance and the national implementation of flexibilities in the Agreement on Trade-Related Aspects of Intellectual Property Rights administered by the World Trade Organisation.

Dr Hadzliana Zainal is a Senior Lecturer in the School of Pharmaceutical Sciences, Universiti Sains Malaysia where she has been since 2008. She is the Coordinator for the MPharm Program for the School of Pharmaceutical Sciences. Hadzliana is affiliated with many international institutions and has served many conferences and workshop committees. Her tasks include overseeing pharmacy students' activities especially when it involves liaising with stakeholders, third parties and coaching them for tournaments, exhibitions and patient counseling. She is also active in supporting students' 'Baktisiswa' community work where they get first-hand experience of the life of the local community, instilling awareness amongst students on the impact of volunteerism on community and national development.

Professor Habibah Wahab is Professor in the School of Pharmaceutical Sciences, Universiti Sains Malaysia. After PhD from King's College London, she joined Universiti Sains Malaysia and climbed her academic ladder. Within 10 years, Habibah was promoted as a full Professor and in 2017 she broke the glass ceiling to become the first female dean in the School of Pharmaceutical Sciences, which had a 50 years of history with eight male deans. Habibah is well known internationally in her field of research. She has been advocating on the collaborative innovations on traditional medicine in addressing the escalating cost and poor access to modern medicine, which were prevalent in some ASEAN countries. Her work continues into addressing concerns regarding less fortunate youths via the Science for Society activities. For example 'Baktisiswa' involves communities in Indonesia and Malaysia and ensures selected students who were 'adopted' by the School can afford to pursue their studies until University level. Current projects include Pharmacy4Kids which promotes STEM education to young kids via pharmacy-based activities.

Dr Yap Beow Keat is a Pharmacy Lecturer in the School of Pharmaceutical Sciences, Universiti Sains Malaysia. He graduated with the Bachelor of Pharmacy (Hons) from USM in 2008, and registered as a Pharmacist with the Malaysia Pharmacy Board in 2009. He obtained his M. Med. Sc. from Universiti Malaya in 2012 and Ph.D in Medicinal Chemistry from Monash Institute of Pharmaceutical Sciences, Monash University, Australia in 2016. During his stint in USM, besides fulfilling his passion as an academician and researcher, he has been actively involved in many committees for various events organised by the School including conferences, workshops, forums, exhibitions and alumni events. He also occasionally volunteers as health counsellor in student activities. Yap has built and maintained the electronic infrastructure that has enabled this special forum.

Dr Tariqul Islam is a Bangladeshi physician and veteran public health administrator. In 2003, he became director of the HEALS study in Araihazar. Before joining HEALS, he spent three years with CARE-Bangladesh as project coordinator, reproductive health program. Dr Islam has worked at Gonoshasthaya Kendra for 13 years. He says GK taught him how to handle the politics and practicalities of public health.

Dr Niyada Kiatying-Angsulee, Ph.D. currently leads three major organizations, firstly as Chair HAIAP (Health Action International Asia Pacific), second Director, Drug System Monitoring and Development Centre, Chulalongkorn University Research Institute and third Chair, Health and Development Foundation Faculty of Pharmaceutical Sciences, Chulalongkorn University. She obtained Bachelor degree in Pharmacy from Chulalongkorn University, Master Degree in Pharmacology from Mahidol University, and PhD in Health Policy from London School of Hygiene and Tropical Medicine, University of London.

Niyada serves on various Thailand Ministry of Public Health committees: National Antimicrobial Resistance Policy Board, Drug Committee (as expert by law), and Sub-committee on Promotion of Rational Drug Use, under the National Drug Policy Board. At the same time, she volunteers with many civil society organisations (consumer and patient groups) nationally and internationally. She is a Board Member of ISIUM (International Society for Improving Use of Medicine) and an appointed temporary expert with World Health Organization.

Her current focus is on drug system monitoring to signal health risk factors to relevant bodies, raise public awareness and to advocate public policies such as antimicrobial resistance, rational use of medicine, and access to essential medicines. Other work includes governance and ethics, social pharmacy, and roles of sciences in social development and sustainability.

Dr Ekbal Bappukunju is a public health activist, a neurosurgeon, and an academic in *Kerala*, *India* and has served as a member of the *Kerala State Planning Board* since 2016 and the Chairperson of the Covid Expert Committee advising the Government of Kerala on Covid control since January 2020. He was the Professor of Neurosurgery at Medical Education Department Kerala until 2000 and Vice-chancellor of the *University of Kerala* during the period 2000–2004. He is an active member of the Peoples Science Movement in Kerala (KSSP) and was the president of KSSP 1983-85. He was a member of the Kerala State Planning Board from 1996 to 2000) during which he played a vital role in *People's Plan Campaign* for Decentralisation by the *Government of Kerala*. He is also one of the joint convenors of Jan Swasthya Abhiyan (Public Health Movement - India). He was the President of the Democratic Alliance For Knowledge Freedom, Kerala popularising Free and Open Source Software.

Dr Shaikh Tanveer Ahmed is the Chief Executive of the leading non-profit organization HANDS (Health and Nutrition Development Society), a sustained comprehensive integrated development model, working in 24 districts of Pakistan as a private public partnership. He is a medical graduate, and Master in Public Health. His unique experience of working as Public Health professional and development specialist is spread across a canvas of more than twenty years. His position as CEO of HANDS has provided him with an enormous understanding of grass roots realities as well as national and international policies and initiatives. His consistent leadership of HANDS has developed it into the comprehensive integrated development model that it is today. More than 25 papers are among his credentials, presented in international conferences, held in different countries. He is also the writer of 23 publications on development and public health issues.

Professor Manuj Weerasinghe is a public health practitioner currently working as the Head and Professor at the Department of Community Medicine, University of Colombo, Sri Lanka. He has been involved in research on many aspects of public health. His work covers health disparities and health-seeking behaviour in marginalised populations, adolescent health, maternal and child health, health of older Sri Lankans, and non-communicable diseases. He also focuses on health program evaluation, health financing and policy transition in developing countries, and the public health impact of international trade agreements. Globalisation has been a topic of interest to him for many years. He has been closely examining the effects of new trade treaties on the medicines market. His work on effects of intellectual property rights on medicines is now published as a research report titled 'Establishing a baseline to monitor public health implication of new Intellectual Property Rights regime on pharmaceuticals in Sri Lanka'. He was also a member of the group that developed the Regional Framework on Public Health Innovation and Intellectual Property for the WHO Regional Office, South-East Asia 2011.

Dr Mira Shiva is a founder and a former Chair of HAIAP. For over four decades she has been engaged with issues of Comprehensive Primary Health Care (PHC), gender justice, and social and health equity. She has been involved with issues of rational drug policy and rational use of drugs, women and child health, food and nutrition security, food safety and biosafety, environment and health, and using law for public health. She was involved in relief work and health impact studies after the Bhopal gas tragedy. Dr Mira is a Founder Member of the People's Health Movement - a Steering Committee Member for two terms and currently an Advisory Committee Member. She is Coordinator of the Initiative for Health and Equity in Society and Founder Coordinator and Co-Convenor of the All India Drug Action Network and was a member of the Health Committee of the National Human Rights Commission of India.

Dr Mira was recipient of the first Dr Olle Hansson award for showing Moral Courage and for contributions Nationally and Globally for Rational Use of Medicines. She was also recipient of the Women Scientists Award in 2006 by Science and Society, Department of Science and Technology for 'prevention of misuse of medicines and medical technologies'.

Evelyne Hong works as Head of Health Program Senior Researcher at Third World Network, which is a Non-Profit and Charitable Organisations company with an estimated 14 employees; and founded in 1984., their management level is Director. Evelyne has been Head Health Program Senior Researcher in Third World Network for 4 years.

Uma Devi is a Researcher at Third World Network. She has facilitated and supported HAIAP activities for many years

Lim Beng Tuan is head of Finance at TWN responsible for marketing. She was instrumental in organising all accommodation and related needs for this Forum in Penang.

Health Action International Asia Pacific (HAIAP) Forum 2023

Welcome

Prof Habibah Wahab, Deputy Vice Chancellor USM

I am delighted and very honoured to welcome you all today to the Health Action International Asia Pacific (HAIAP) Forum 2023 - *Health Action for All: the way forward.*

First of all I would like to express my sincere appreciation to HAIAP for choosing USM as the host for this significant event. The USM School of Pharmaceutical Sciences is proud to collaborate with HAIAP, TWN and our dear colleagues from IIUM in organising our HAIAP Forum 2023. Our relationship with IIUM goes a long way back - even before Tan Sri Dzul Razak became Rector.

Thank you all for agreeing to collaborate in this event.

This event marks an important milestone in our ongoing efforts to promote health care equity and access in our communities. I could not be more proud of the work that has brought us to this moment. Bev - I want to congratulate you - to express my gratitude to you. I have seen how you work. This is your work and thank you for bringing this Forum today.

USM has spent almost 40 years in a relationship with HAIAP before some of you were even born. HAIAP is an independent network that works in the Asia Pacific region to enhance access to essential medicines and to promote their rational use; and to strengthen overall access to health care, to promote research excellence, advocacy based policy and involvement of civil society in national policy making.

During the development of HAIAP, USM was a significant partner when the National Poisons Centre - which eventually became a WHO Collaborating Centre became closely associated with the HAI network.

As a leading and Apex university in Malaysia dedicated to achieving the UN Development Goals, USM takes immense pride in its heritage of academic excellence and its dedication to research excellence, innovation and community involvement.

We fondly believe in the transformative role of education and research to address the pressing challenges faced by our health care system. On the one hand we continue to face persistent gaps in health outcomes and access across the region driven by inequities in wealth, geography and social status while on the other we see emerging trends that offer promise in the way we approach health care - from digital health technologies to community led initiatives.

As you all know, I am just a newly appointed Deputy Vice Chancellor. Today is about my 13th day. I am particularly please to see the active involvement of our students and students from Kuliyah Pharmacy IIUM and other universities too. Thank you for participating. Your contributions will be vital in shaping the dialogue in this Forum.

Before I close I would like to extend my sincere gratitude to the organisers and partners who have worked tirelessly to bring this event to fruition. Your dedication and vision have been truly inspiring and I am confident this Forum will greatly contribute to bringing about positive transformation in our region.

Thank you all.

Prof Nuurzalina Abdul Karim Khan, Dean of the School of Pharmaceutical Sciences USM

Good afternoon and a warm welcome to the Health Action International Asia Pacific (HAIAP) Forum 2023. We are delighted to have you gathered here today under the auspices of HAIAP in collaboration with the School of Pharmaceutical Sciences at the Universiti Sains Malaysia (USM), Third world Network (TWN) and Kulliyyah of Pharmacy International Islamic University Malaysia (IIUM). This HAIAP Forum marks a significant milestone in our collective pursuit of health action for all. As we come together in this beautiful setting on the picturesque island of Bulapinang we are reminded of the power of collaboration and knowledge exchange in driving positive change in health care.

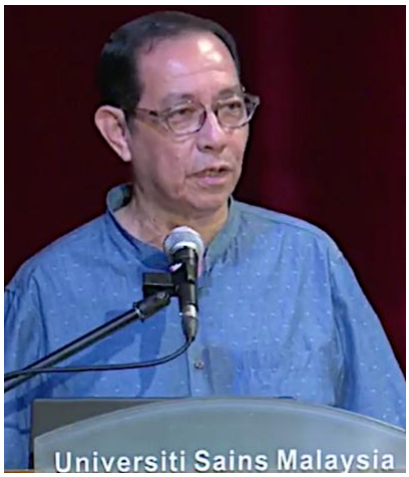
Because of the persistent commitment to academic excellence and research, USM has acted as a catalyst for revolutionary transformation in the pharmaceutical and health care industries. Through our partnership with HAIAP, TWN and IIUM we aim to further deepen our understanding and collectively address the challenges and opportunities that lie ahead in achieving health action for all. The theme of today's forum - *Health Action for All - the way forward* - encapsulates the urgency and significance of our discussions. We find ourselves at a pivotal moment in history where health care systems face unprecedented challenges and opportunities. The pandemic of COVID-19 - which I have just recovered from - has exposed the vulnerabilities within our health care infrastructure while also revealing the resilience, innovation and solidarity within the global community.

I encourage each and every one of you to actively participate in the discussions. Share your expertise and engage in meaningful dialogue. Together we have the power to shape the future of health care and influence policy decisions and to advocate for positive change at local, national and regional levels.

I would like to extend my deepest gratitude to HAIAP, to our school, to TWN and Kulliyyah Pharmacy IIUM for their tireless efforts in organising this forum. Besides I would like to express my gratitude to all the participants - local and international - for joining us physically and through live streaming today. Your presence here demonstrates your commitment to creating a healthier, more equitable world. I am confident that the decisions and recommendations from this forum will pave the way for transformative change in health care systems across the region.

Thank you once again and I wish you all fruitful and inspiring forum together. Let us chart the way forward to health action that leaves no-one behind. Thank you.

Opening Address: Tan Sri Dzulkifli Abdul Razak



I am delighted to be here today for very many reasons. One reason is that I have benefitted so much from HAIAP over the years and of course from the Universiti Sains Malaysia (USM).

First I would like to thank HAIAP for agreeing to have USM as a host and to thank USM for agreeing to host this very auspicious occasion within the university.

Another reason I am delighted is a very selfish one as I think back 50 years to when I was a student in the 1970s. I would particularly like to address my thoughts to the students who are here today.

Fifty years ago when I first stepped into this university it was just the second university in Malaysia. The first was the University of Malaya. USM was established in 1969 just after the events of May 13.*2*

USM is supposed to be a 'different' kind of university. The first Vice-Chancellor was the late Professor Hanzhu Sandhu who was the Dean of the Faculty of Arts.

I want to tell you a little about Prof Hanzhu because he epitomises what this university is all about. Coming from the University of Malaysia to this university he started almost everything as new and this is what became the hallmark of this university. While the University of Malaya has a Faculty system, this university has a School system - a different system altogether.

The University of Malaya has colleges and residences while here we have a DESA (*desasiswa*) system - a completely different system for student residences and hostels.

While universities are supposed to be ***big***, this one is the smallest in the country. Universities are supposed to be 'modern' but this university is distinctly a 'natural' university. We are supposed to be pedestrians here - you are supposed to walk. if you are wondering why the roads are so small - too small for buses - there is no shuttling up and down - it is because this university is different.

This university introduced different schools at different times. The first schools of social sciences and humanities were born at this university. The first school of pharmaceutical sciences was born at this university; the first school of computer sciences was born a this university; the first school of mathematical sciences was born at this university; the first school of integrated medical sciences was born at this university. This university was new from the ground up and everything we learnt from this university was also different.

I was a science student and I was only supposed to do 70% of my subject in sciences - the rest must be non-science. We learnt about integration of knowledge and a multidisciplinary approach when we stepped into this university.

But there was another problem when we stepped into this university when we enrolled in the school of pharmaceutical sciences. To spell pharmaceutical sciences is very difficult and it has a different meaning to different people. The simple word is pharmacy but even that word has a different meaning to different people. I remember the newspaper that talked about how we were going to have a new group of farmers that would produce new agricultural products - and we were called FPARMERS. We were supposed to produce something that was different from the products of the usual agricultural industry. Some people saw us as the ones who read palms - PALMISTRY. Nobody knew what pharmacy is all about. And here was i - supposed to be a pharmacist.

The first thing we needed to do was educate ourselves on what pharmacy is all about and how it relates to our life and to our career. And this is where we found a second university in this island of Penang - a hotbed of activism. We found the kind of people like Hanzhu Sandhu. There were and are plenty of them outside our university: The late President of Consumers Action of Penang (CAP) - the late Uncle SM Idris, Dato' Seri Anwar Fazal, current CAP president Mohideen Abdul Kader. There are many that I get in touch with consistently. All this tells me that this university alone is not the university of my choice. and what do I mean by that? This university will not bring me to the heart of the community if I don't spend my time with the community. I can be in the library, I can be in the lab, I can be anywhere else. I want to do what I am supposed to do as a good student but I will miss a whole chunk of what life is about - life in the community.

2 https://en.wikipedia.org/wiki/13_May_incident

The people that I as a pharmacist am supposed to serve are in the community - people that I do not know. These are the people that need the knowledge that I have. What is it about? It is about medicines they are deprived of - essential medicines. Habibah talked about essential medicines. I learnt about essential medicines outside the classroom - not in the classroom. I learnt about rational use of medicines from HAIAP - not in my classroom.

There are many concepts that relate to the 'real life' of people that were not taught in my classroom, so I find that HAIAP is very significant for me. It has changed my whole way of thinking and the way I look at things - bringing me to where I am today. It is because of HAIAP that I am where I am today. I am not saying that USM is not doing its job - it is but it is not adequately serviced and therefore the meeting of USM and HAIAP is what life is all about.

An academic's life is about research and publications and doing all the things we have been doing but sometimes I ask myself 'are these relevant to the people outside?' I might publish in a journal that is ranked Number 1. and I have an impact of Number 10. But how does that impact factor of 10 translate into the community I am trying to serve? it means nothing! That is why I think that work we do today must bridge academic life and real life. This concept has been very significant when we think of the pandemic. It tells me education is not about livelihood. Education must be about life.

We are so busy trying to feather our nests - making 'success' the way people see us and what material goods we have. And we forget what life is all about - the intangibles that we can never measure. The pandemic tells us that at the end of the day, the intangibles that we cannot measure are what really matter.

During the pandemic you can have a lot of money but if you cannot move and there is noting to spend money on - because everything is closed down - then your money means nothing. This is when you find that the community is what makes a difference. At least in the International Islamic University Malaysia (IIUM) where I am now there is a community that gives us all the opportunities we need to serve them to make sure everyone is looked after; and where you see that no-one is left behind. During the pandemic we have really tested our conviction that everyone must be taken into account in an inclusive manner.

That was not taught in our classrooms. I was taught that if you have two products that are the same, you must sell the one that has the highest profit margin so you can make enough profit to enrich yourself so you can be called 'successful' - although spiritually you are probably among the poorest of the poor.

So this is a meeting of not just technical scenery, about scientific sciences, it is about human sciences at the same time. And I do hope the students today will pay particular attention and I do hope you will use the platform called HAIAP to transform your lives as you move forward.

I think the time has come that the world is in a very sorry state. If you don't transform the way you look at life, all the education you have gone through will be meaningless.

I will share with you an example: this whole question of vaporised nicotine being removed from the poisons list is something that is very shocking and we are fighting against it with the Ministry and with the government. What does it do?

From April 1 it was made available to ***everyone*** because at that time the Ministry of Health believed it could be de-listed. Nicotine used to be listed in the poisons List and only people over 18 years of age could buy it.

Just two hours ago I got a report from colleagues working on the ground who had found that children under 10 years old were using this vaporised nicotine and facing many serious problems - seizures, muscle spasms, depression - all those things they would be protected from if this poison remained on the list.

We are supposed to be able to protect people that need to be protected because we have the knowledge and we have the power. But I see very little protection in the country today.

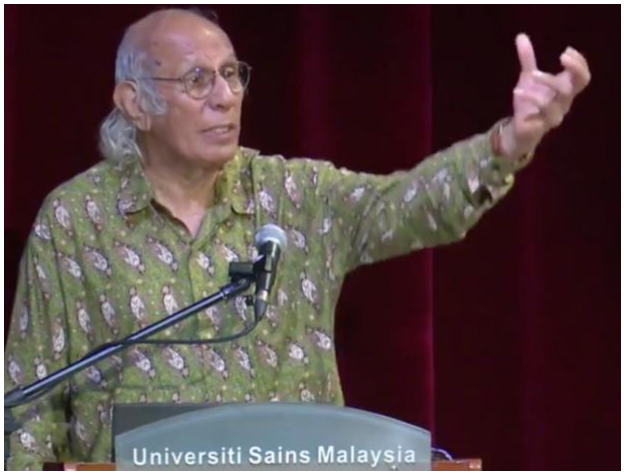
We were supposed to deal with this vapourised nicotine issue in the parliament in May. Now it is postponed to June. Very soon we will find that a lot more of the youngsters who are innocently seduced are using these poisons.

The reason this government has gone this way is that they want to collect taxes from the sale of nicotine. To make money from someone's misery is a crime. Together we must fight this crime to ensure that students, and everyone else that needs to be protected, will be protected. We will be the custodians. Therefore I am repeating this message that to those of us with USM, IIUM, TWN and HAIAP - and everyone else - is of paramount importance.

Now I want to remember those who have left us: the late Zafrullah Chowdhury - a true icon himself; the late Professor Balasubramaniam - a great teacher of mine; the late Shila Kaur who worked for many years with HAIAP; and I must not miss the late Uma Ramaswamy Iyer who served tirelessly and with dedication with Uncle SM Idris in CAP for more that 30 years. These people are gone. Soon we will be gone. What we leave behind us is what we hope will survive to help make society move forward better and I hope we will start today.

Thank you very much for presence. Thank you very much for your commitment and I hope we can stay together as a group. Thank you.

Keynote address: Dato' Seri Anwar Fazal



Brothers and sisters, citizens of the universe and children of mother earth. It is a very special joy for me to come back here again to USM. My sister was one of the first batch at USM in the science class when it began in 1969.

My sister became the chief librarian in USM and had the joy also of setting up one of the most pioneering colleges in the world which has now some 12 campuses - called the Right Livelihood College - which brings together all the winners of the alternative Nobel Prize - the people who are change makers, people who make a difference to all over the world and come from nearly over 150 countries. Penang USM was the headquarters of the network that made these people into learning change workers.

There was a person who was watching a building being made by three brick layers. That person went up to the first brick layer and asked 'what are you doing?' And the bricklayer said, 'I'm laying a brick'. He went up to the second bricklayer and he asked him, 'what are you doing?' He said, 'I am building a school.' And he asked the third bricklayer 'what are you doing?' He said 'I am trying to make the world a better place'.

I use this illustration because it tells you of the way in which we perceive things that we do and things that other people do and there are different kinds of visions about life. And for us in the world today we have to be the kind of people who can see these differences. It be not enough to be just PhDs. You have to be BSTs. And you have to be GTDs.

What is BST? BST is blood, sweat and tears. You must be prepared to get out on the field and start doing things and sacrifice yourself and take up all the challenges that are needed to be taken up.

And what is GTD? GTD is getting things done. The ability to see how you can make sure things can happen. That means you understand the techniques of making change in society.

I had become much closer to pharmacy thanks to the *tongkat3* that people were buying from pharmacies. The Poison Centre worked very closely with the consumers movement in doing tests for products. We were finding that products that were harmful (in *tongkat* for example) were being marketed as something that would be beneficial. And we were able find poisons in things that were freely available.

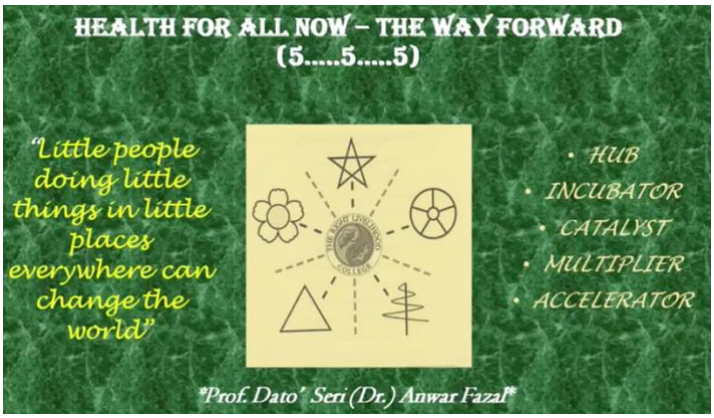
There were remarkable things at that time. For example, *Belacan* (shrimp sauce) that was very common at the time. There were people who thought that *Belacan* looked very ugly and that we should make it better by adding colour to it, so they added red colour to make it look nicer - but you know what? They used the same colouring as was used to make paint and this paint colour is actually poisonous and can cause cancer. So you can imagine a product that was like a household thing for large numbers of community in this country was being poisoned by being coloured with a colouring that is used for paint.

These were the kinds of things that we found and here was an institution that could do the testing for us. We collaborated with the Poison Centre in a number of things that happened and we were also very proud because of the initiatives that they took.

[3] various herbal 'cures'

One of the early winners of the Olle Hansson Award - that we will present today - was none other than Tan Sri Dzul for his activist work - including with the Poisons Centre - in making health for all available. Well done! It was nearly 40 years ago and very important action for us.

I want to talk about three things - three sets of five. You can see the chart there where I have put symbols that are going to be quite significant. The first set of five you see is the flower. The flower represents beauty here. It also represents a thing that gives life. It carries the pollen for contining life and its five petals are five things I like to remember because if you want to make a better world, you have to know the elements that will make a better world and there are five very very strong elements.



The first element is social justice - equity, social justice. If you don't have that sense of social justice you will not recognize the real meaning of what is a caring life.

The second is ecological sustainability. To look at how we have an impact on mother earth - the way in which we very often end up poisoning mother earth with the way we deal with chemicals and so on - we just throw them away. We flush them down and we actually poison mother earth itself.

Then there is economic productivity and that is very important too - you want to see ways by which you can make things that are not just money making but productive in terms of how they give value to society. That's a different way of thinking. You think in terms of good economics and bad economics. There are people who just do anything that can make money. Tan Sri Dzul mentioned how you know these things were happening and in our very very early stages of our work we found how pharmaceutical companies were charging one kind of price in one place and may be 100 times more in another place - and they were forming cartels where they can distribute drugs to any one of them at a higher price and that will be the winner for contracts. We found all kinds of amazing things happening in the world at that time - how corporate capitalism was engaged in distributing things that were meant to serve humanity - products that were about life and death and were completely unaffordable to ordinary people.

That was very very sad and then of course we had to find ways of competing with these kinds of operations. Affordable generic drugs were being made and and several countries took leadership in these enterprises. Bangladesh was one of them. Thailand and India also took action in terms of making sure that they were free to make generic drugs of their own. So then essential drugs were available at very reasonable prices and yet the processes were sustainable in terms of economics.

So you had this capitalistic profit type of enerprise and the community service type of economics that is so very very important.

The next thing is what I call participatory democracy - how big decisions that need to be made about health and so on should involve consultations and should have engagement - so that when things are being discussed, they should be discussed with the groups that are involved **-** what Tan Sri Dzul mentioned concerning the use of nicotine vapes for example**. T**here is a whole network of anti-smoking organisations, **and a** whole network of doctors who have been involved. We know the impact of these kind of practices but not to engage those who are involved in dealing with the practices - not to listen to them - is not democracy. Its a kind of authoritarianism that we cannot accept. When they don't have the appropriate kinds of engagements and involvement they may be listening only to those who want to sell the problem products because they make money.

The last thing is extremely important - cultural vibrancy. We all have traditional systems of music and dance and even medicine. We even know of traditional exercise - whether you take the yoga or tai chi and so on. There is a whole range of wellness systems that are actually built into our system. And these systems can be can be sadly ignored and lost. We must keep that kind of cultural vibrancy And that cultural vibrancy also brings joy and colour to people's life and we should combine those kinds of things with health.

The second set of five is the star. If you want to be a star in this movement, in the health movement in the community, there are five things that are extremely important. This five - the star.

If you want to be a better person, there are five C's that are extremely important for you. And of these five C's the first is conscience. Conscience is that you feel accountable.

I want to tell you two stories. One is a story that links up with the award that we going to give in memory of this great doctor - Dr Olle Hansson. There was a woman, a young woman who was working in Ciba Geigy. They were talking about a particular drug - *Enterovioform* (clioquinol) - that was damaging the health of Japanese - causing blindness. Tens of thousands of Japanese were being damaged. The discussions in the Ciba Geigy board led to the statement 'never mind it's only affecting the Japanese and we have 10 more years of patent. Let's continue. Let's not bother about them. No one is complaining you know.'

This young woman could not bear that kind of action and she sent documents from the board meeting to Doctor Olle Hansson. Based on those documents we wrote up a book that was published in Penang called *Inside Ciba Geigy.* That scandal went all over the world with that book that was published in Penang. There was not one letter trying to challenge us, or lawyers to sue us. No - because we had the truth as the result of the conscience of this person. Until today we have never talked about who this person was but it was the conscience of a woman who could not stand this kind of conduct. It is extremely important if there is something really wrong - you have to speak up.

There was another woman whose name was Kelsey. Frances Oldham Kelsey. She was a doctor with the Food and Drug Administration who was in charge of approval of drugs and she was put under pressure to get approval for a drug called thalidomide. This drug already had problems. It was given to mothers who suffered from morning illness and depression during pregnancy. Very commonly their babies were born without arms and without legs - just with little appendages. This was happening in an amazing way all over the world - and what happened? They wanted to introduce this drug to the United States. The United States is a very drug**-**taking society with the culture that for every ailment you have you must have a drug. You have a situation where people put pressure to get drugs**;** and there **is** a very strong link between pharmaceutical companies and the food and drug administration.

The pharmaceutical companies are among the largest contributors of political donations to the government of the United States. So you can see the politics by which these kinds of things are done. These kinds of politics are very very strong and and very painful for us. Doctor Kelsey was not happy with the selling of thalidomide in the United States. She fought and she fought. She was put under so much pressure by the companies and then the results came out from a number of reputable sciences that this drug was causing babies to be disformed - a really horrifying story - and she became hero. She lived to be a hundred and one. She was given a very special award for all her health work by President Kennedy. This story again represented conscience.

The next C of course is relating to courage. You have to also have courage. You have a conscience but you must be able to get out and do something about it - courage like this women showed.

Competence as the third C is extremely significant. And that you would know very well because if you are not competent then you shouldn't be in this particular field.

Creativity. That's the idea of having a very open mind in which you can begin to think about links and organisations - what I call sometimes you know hubs - incubators - catalysts - multipliers - accelerators. All these kinds of concepts that come up and which tell you about how to organise and lead.

The fifth C is conviviality. Conviviality is about how to deal a**n**d disagree without being violent, without being difficult. You can talk, you can discuss, you find all kinds of methods and ways by which you can address these kinds of issues and the more you keep yourself comfortable, the more you even smile as the other party gets angry, you can deal with the problem. You keep calm and you have that kind of culture and ability - then you will make a difference

The *third symbo* is the will, the will of change. The will is moving things forward **a**s we are planning to do and here we have five things that we need to remember. One is the power of one. One person can actually make a change in the world. Look at Zafrullah - one person - he provided leadership and with his leadership we saw essential drugs, we saw courage. In the movements in his own country we saw the setting up of a university and a whole healthy self-reliant community. Amazing things he did.

There is a network. The power of many comes so that you form networks, you form organisations like HAIAP and then you can get stronger because you have a network. Network - the word was first to be used by us in civil society. That time 40 over years ago the word network didn't exist really. A network is where we form links with institutions, with universities, with the professional organisations**,** even with individuals - everyone.

Then you have the power of all including the power of local, national and global - the younger generations, the middle generations and the older generations. You become universal in terms of your work.

The next is of course information and now data is available all over the world and the new challenge is what is good data and what is bad data. That is going to be a brand new story.

The fourth part of the will is the halo. We have international rules. We have international documents, we have treaties, all of which we can draw from in order to make change in our own country, in our own community. These have already been agreed to. We also have the halo of the spirituality and our conscience and our caring that goes together with our spirituality.

The fifth part of this will is the power of success. Everywhere in the world people are doing great things and making a difference but these stories are not told, the stories are not shared - we forget. But if we know how to share these kinds of stories then you know that you can make it. If somebody ask you and suggests it is difficult, it cannot be done, then you know other people are already doing it. So, go ahead and get it done.

Now the triangle is what I want to talk about. The triangle is about local, national, global, it is about the younger generation, the middle generation, the older generation. Many of these kinds of things that you have to become aware of because they represent the way the world is sequenced.

The last thing - a Sufi symbol. I wanted to share this Sufi symbol - that is a straight line and a curve. A curve and the straight line represents the path that cannot change - all the things that relate to it - like integrity, the elements that I spoke about earlier. That has to be the straight path. The river is the flexibility, the creativity that you have in order to make changes. You must have both that kind of ability and flexibility. So if you want to make a difference - whether you are faculty, whether you are students or my brothers and sisters from Health Action International, you have to remember that if you want to make the whole world grow, you have to make the whole world into a garden. You have to make the whole world a God. If you want to learn, you have to make the whole world your university. And if you have that kind of mindset, then you, all of you, can make a difference. Thank you very much. Salaam Alekum.

Beverley Snell - Session Chair:

Thank you Anwar: This weekend we celebrate the anniversary of when those four people - the founders of HAIAP - Anwar Fazal, Doctor Mira, Doctor Bala and Doctor Zafrullah - on that night of May the 29th in 1981 in Geneva. They pretty much took on the whole world and they made an organisation. There were a lot of links with other organisations throughout the world and something emerged that would make a difference.

One of the most successful enterprises in our world is Gonoshasthaya Kendra which was started by Doctor Zafrullah Chowdhury. We lost Doctor Zafrullah quite recently - on the 11th of April - and we will remember him forever. The following video tells some of the story of the history of the development of Gonoshasthaya Kendra and of Zafrullah himself. [4]

Tribute to Dr Zafrullah Chowdhury

Zafrullah Chowdhury was born December 27, 1941 in Chittagong. He completed his MBBS in 1964 at the Dhaka Medical College and then in 1967 he attended the Royal College of Surgeons in London. But when the liberation war began in 1971, he returned to serve the nation only weeks before completing his degree.

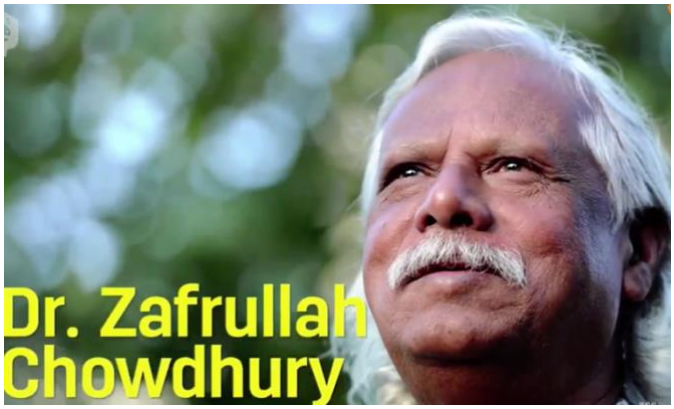
He started collecting money from Britain for constructing a field hospital and began with that hospital of 480 beds in Agartala for wounded freedom fighters. He provided basic training in health care for female volunteers. After consulting with Sheikh Mujibur Rahman, he named the hospital Gonoshasthaya Kendra - Peoples' Health Centre - and that became a whole community organisation. In 1981 they established a modern pharmaceuticals plant named Gonoshasthaya Pharmaceuticals. That plant could provide good quality essential medicines at a very low price.

Dr Zafrullah dedicated his whole life to serving people. He rejected an offer to join BAKSAL - a communist political party - and refused becoming a Minister in General Zia's regime and also refused the offer of becoming health minister in President Ershad's government. In 1977 his organisation earned the highest national award from the Bangladesh Government - the Independence Day Award. In 1992 they were also awarded the Right Livelihood Award from Sweden.

Recently, during the corona virus pandemic, his organisation invented a COVID-19 Testing Kit.

But Dr Zafrullah also involved himself in many political issues that incurred conflict. However, his love for humanity will remain unforgettable for Bangladesh and for the whole world.

[4] https://clipchamp.com/watch/OTghdsUbeUY



Bangladesh is located in South Asia. With a population of nearly a hundred and sixty million it is one of the most densely populated countries in the world. During the years after the liberation war against Pakistan in 1971 the new independent country was plagued by hunger, impoverishment and political instability. And although the situation has improved, in the meantime many Bangladeshis are still mired in poverty to this day.

Zafrullah Chowdhury: 'Life in Bangladesh is miserable. Our health care is becoming impossible. Women have been exploited. Bangladesh is known for its garment industries. Two million young women keep that economy of Bangladesh going. At what expense? They get less than a $50 a month income.

'On the other side they are making huge profits for the owners and they are giving you cheaper clothes in the western world. So you don't want to talk about that.

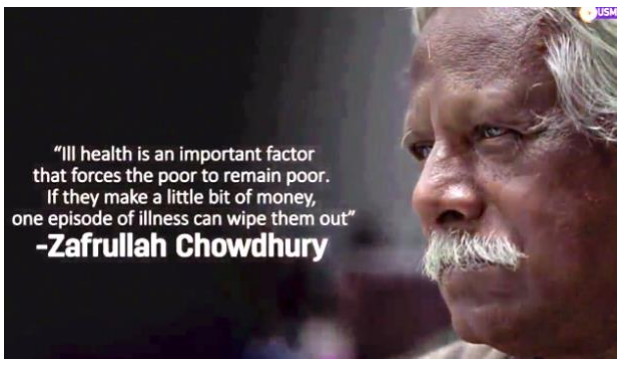
'Gonoshasthaya Kendra is a non governmental organisation that primarily champions better health care conditions. One of the centre's main undertakings is to train paramedics. It is mainly women who provide the first level medical care riding from village to village on their bicycles. One paramedic is responsible for up to 1000 families in three or four villages.

'They offer advice, treat patients and perform simple operations. More complicated cases are referred to the nearest clinic. Realising that solely doctors cannot provide the health care. You need a large number of people really who can provide other help. The experience of Gonoshasthaya Kendra shows that the participation of the community and the integration of local authorities are key to the success of their projects.

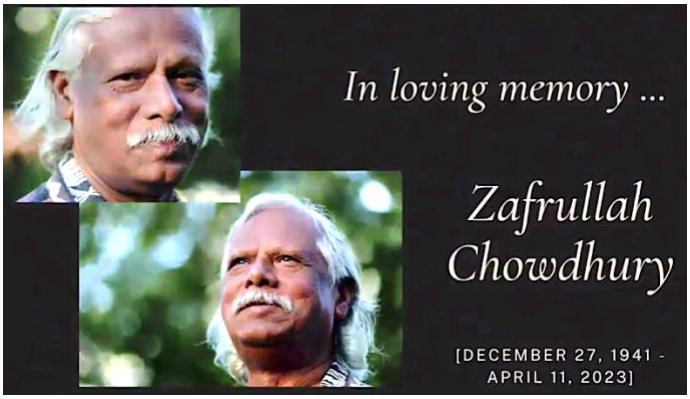
'Working originally in the health field, the organisation has expanded the scope of its work into other areas such as agriculture, emergency relief, research and education. We are trying to also provide health care and education for the rural people.

'From the beginning Gonoshasthaya Kendra emphasised independent, self-reliant and people orientated development. It conducts seminars and workshops, organizes conferences and offers training programs. Today the organisations employs over 1500 people and has a great number of volunteers working for it.

'Medicines must be affordable. This is one of the health centre's basic principles. To this end they founded Gonoshasthaya Pharmaceuticals Limited a company which has become one of the largest pharmaceutical manufacturers in Bangladesh. Bangladesh has become self sufficient. 97% of the drugs are produced locally and like a journal. So drug some drugs are those who are under government price control. These have become very cheap. But those who are is not under government price control, prices skyrocket. Greed is not sustainable. For doctors, this is a simple but crucial recognition. Something that everyone must be made aware of. Especially the future generations.



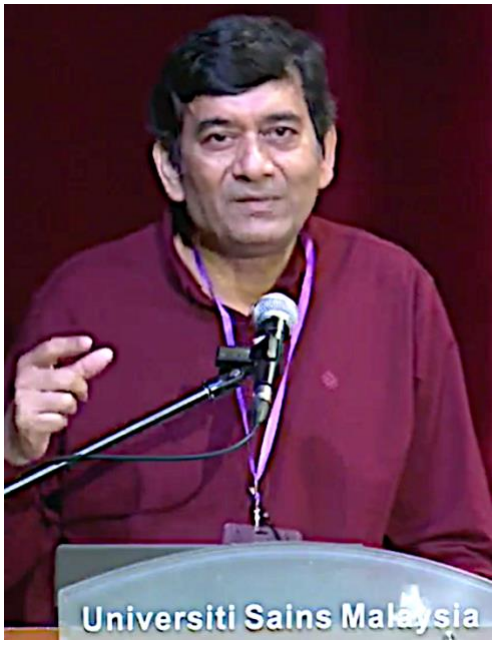
'To stop the greed of the multinational companies. We have to make medicines cheaper. So it is affordable. All the time you cannot take people for fools. Sometime they will be awaken. And that has a started beginning. But the process is a bit too slow for me. I think it has to be faster.



'Our life is a struggle. Our struggle is within the country because we speak for the common people. We speak against the prevailing system which reaps the profit while denying justice to the common people, denying health care for the common people. We speak for them, we stand by their side. For anybody who is willing to struggle, it is not easy.'

When Gonoshasthaya Kendra and Zafrullah Chowdhury received the 1992 Right Llivelihood Award, the award was a valuable boost in the long and tough struggle for a functioning health care system in Bangladesh.

Remembering Dr Zafrullah Chowdhury: Dr Tariqul Kulli Islam



Assalamu alekum and thank you to the audience and dignitaries. I also thank HAIAP for giving me the chance to come here and meet those people who I met so long before.

Gonoshasthaya Kendra started just after the liberation war in 1972. The same group who started the Bangladesh field hospital in Agurtala for the liberation army led by Zafrullah Chowdhury started the demystification of a health. Dr Zafrullah trained community girls to care for injured patients. He moved that field hospital to Savar where he started to serve the people with the help of the rural girls trained in health. Among the procedures available for the GK hospital was tubectomy as a family planning procedure. He expanded training of his new staff so they became qualified paramedics. Although the trainees did not have formal medical education they fulfilled their role successfully.

GK expanded activities into much wider health-related ventures to encompass Primary Health Care (PHC). On top of that they began a Pharmaceutical industry for producing good quality affordable essential medicies including antibiotics - from raw materials. Then a GK University was established.

Zafrullah had thought about medical doctors becoming the leaders in the society. As well as being trained in medicine to provide management of diseases, a medical doctor has some social responsibilities, and he may even become **a** political leader if he wants. That was his goal. He was thinking for a long time about medical education and he formulated the project propotal in 1984 for community based medical education to be developed. He applied to the government but they did not give permission for his idea to be accepted.

Zafrullah believed that the new generation of medical professionals produced in medical college should have enough knowledge in environmental health and enough profession skills to counter the aggressive promotion of pharmaceutical industries. They would have better interpersonal communications and research capabilities. With these ideas he started GK's own medical college.

Zafrullah also said our medical training and education must lead us out of the hospitals to the community and that is what we are doing. It is only 25 years that the medical college has been operating.

Soon after the PHC programs were launched, the scarcity of essential drugs became obvious. On the basis of practical experience he gradually became aware of the different parts of the system - including the process of formulation of medicines and the politics behind the price of medicine that would need to be addressed for the system to be sustainable. So in 1981 he went to the government to explain the need to develop and implement a National Drug Policy.

Many of you HAIAP people know better than I do how he fought against the multinationals and others to make Bangladesh a country independent of mulinational companies. It was not entirely successful. But still his idea was that there must be a watch dog to fight for pricing control.

It is necessary to manage the quality of drugs from production to rational use of drugs, especially antibiotic misuse and overuse, and the cost of treatment. He recognised the need for a drug information centre to inform the community people.

He felt that GK could take the responsibility as a watchdog. At the moment, as you know, the Bangladesh political situation is in a lot of turmoil and it is not very easy to go the way we want to.

Zafrullah was very concerned with womens' development. People have said 'why are you going towards the non formal, non traditional works for women like welding, carpentering, factory machine working, boiler making - all these things?' He wanted to demonstrate that non traditional work for women creates skills. Women at GK are skilled. They become skilled when we give them chances and opportunities. He wanted to demonstrate that equality, and to do the advocacy to transfer ideas to the national policy level so that the whole country would benefit. He did not believe in GK expansion as the solution, because an NGO cannot be a parallel government. The state or national government has the responsibility to implement, at the country and national level, the good experiences that have been shared.

You know Bangladesh is a disaster prone country - especially with floods, cyclones, and tornados. In 1988, we had a huge flood. Almost 80% of Bangladesh was under water. Dhaka city was under water. Everywhere was water. So it was a natural and national crisis. The water remained for more than three weeks everywhere. Zafrullah called for national unity in simple food supply. He said to everybody let us give you a hand to cook food and send it to the people. Everybody asked 'how can we send food to hundreds and thousands people?' He said 'if you give just flour they do not have any place for cooking so they will just put it with water and eat it and it will create stomach problems and diarrhoea, so let us make chapatis and we will supply them with molasses and salt ready to eat.' We made thousands of chapatis each night.

Zafrullah also went to the Dhaka city urban areas - to the rich people asking 'can you give your hand to make some chapatis and give it to us so that we can supply them?' And believe it! All the military in the cantonment, people in the universities, in the hostels, in the Dhanundi, the rich area, in the Gulshan, the very rich people, they all took part in this. So there was national unity. Zafrullah called for it and he was successful.

Then suddenly he got information that some big companies were importing ORS. Oral Rehydration Salt was being imported from foreign countries at a high price. So how to fight that? He again called to GK staff. 'We have to produce ORS by hand' and he brought the chemist from the pharmaceutical company to train us and can you believe it? We produced 100,000 packs per night and suppied them! And again he went to the university students, to the cantone, to give their hands and they accepted. Every night almost 100,000 packs were produced and in the morning we supplied. So ultimately the government stopped that import. That was his fight.

He liked to hold court at all times of the day. He would say if we find a problem, let us now fix the problem. He believed that - it was his fight. Disaster management was another area that had to be done. There were many videos we could learn from but he was such a good teacher. He was a good teacher in the sense that he would always like to debate with us and with the villagers and with the traditional healers, with the traditional birth attendants. He would discuss with people for hours and hours. He visited almost all the villages of Savar. He visited all the districts of Bangladesh and talked to the people. He learnt from people. He also liked reading books and journals and he motivated his fellow staff to read all these books. He gave us a book *Primary Child Care* by Maurice King, a renowned public health physician.

In a country like ours, a developing country, the elected government cannot implement a pro people policy because they have to negotiate with many vested groups so it is good to have a good dictator in developing country to implement pro people policy.

Then he was talking about indoor air pollution - long before others looked into it - before 25 years ago. He gave us a book of Shanti Nagar from India. She was talking about indoor air pollution. Poor people live in one crowded room, cooking inside the room, with no ventilation, throught the world. There is clearly a need to consider how to overcome indoor air pollution.

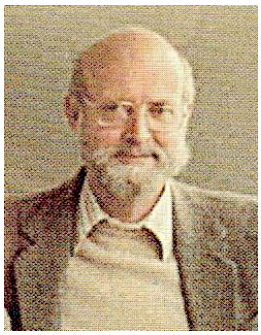
He motivated us to learn to read from the book of Andrew Herxheimer about essential drugs. *Paediatric Priorities in the Developing World* by David Morley was another book. He always introduced us to the best journals as well.

He always said, if you want to fight with the vested interest group, you must have knowledge. And you must have the interpersonal skill to discuss matters. We must be resilient because we are working for the people. We need to show resilience. We have many stories.

One day in 1988 he sent me personally to an offshore island in the Padma river with some collegaues. Every day 10 to 12 people were dying. I said to him - let me go to that area the next day. He said to me 'calculate your time and think - if you go in the next morning, how people how many people will die before you arrive? It is your decision.' So I just started out for that area. He said 'you will learn another story.' And believe me when I went there all Hindus and Muslims were shouting to the God to protect them. Believe me, the next day we only lost two people.

That was his motivation, things must be done immediatey. There are so many stories for us to remember. He wanted to demonstrate that services are needed everywhere in Bangladesh. But he believed that health is a responsibility of the state and it is a matter of human rights. His motivation, his strength**,** was cemented by higher people as you supported him. Thank you very much.

Olle Hansson Award 2023 - presented by Dato' Seri Anwar Fazal



Dr Olle Hansson was an icon of the activist medical profession and wrote a classic in medical investigative exposure. The book was called 'INSIDE CIBA GEIGY' and published in Penang, Malaysia in 1989. It is an remarkable piece and we like to quote from the foreword written by **Anwar Fazal**, former President of International Organisation of Consumers Union (IOCU), co-founder of Health Action International (HAI) and the instigator for the idea of a Peoples Health Assembly.

'Olle was a very special inspiration to us. His courage, his competence, his commitment were rare in a profession that is more often too comfortable or too implicated to speak out against a powerful industry.' His passing on 23 May 1985 was mourned not by words but by a series of actions that will continue to inspire those working to see a more responsible pharmaceutical industry worldwide.'

The Award was first given in 1987. Recipients include Dr Mira Shiva of India; Dr Alfredo Bengzon of the Philippines; Prof Dzulkifli Abdul Razak of USM, Malaysia; and Dr K Balasubramaniam.

The Award recognises the work of an individual from a developing country who best demonstrates the qualities of Dr Olle Hansson in promoting the rational use of drugs. *'It is time to act! It is time to act for all of us who believe in human dignity and justice'.*

Olle Hansson Award 2023

Dr Claudio Schuftan is a freelance public health consultant, living in Ho Chi Minh City, Vietnam and an ex-adjunct Associate Professor in the Department of International Health at the Tulane School of Public Health in New Orleans, USA. He is a Chilean national and got his MD and paediatrics degree in his native country. Since 1975, he has been working on nutrition, Primary Health Care and human rights issues in more than 50 countries the world over. From 1988-1995 he worked in Kenya. He has lived in Vietnam since 1995 and consults worldwide. He started working on human rights issues in the late 90s and is the author of a fortnightly column, the Human Rights Reader; over 390 of these Readers can be found on his website www.claudioschuftan.com. He has been associated with HAIAP since 1995 and he is one of the founding members of the People's Health Movement. Claudio is co-recipient of the Olle Hansson Award 2023.

Professor Michael Lim Tan trained in Veterinary Medicine (DVM, University of the Philippines, Diliman, 1977), Anthropology (MA, Texas A and M University, 1981) and Medical Anthropology (PhD, University of Amsterdam, 1996). He worked with social action programs from 1977 to 1981, mainly in community-based health programs in Mindanao and in Luzon, and with a community-based tuberculosis control program. He founded the health NGO, Health Action Information Network (HAIN), among the first HAIAP partners, concentrating on research and information for community-based health programs, government and non-government health agencies, mass media and legislators. HAIN played a major role in pushing for health reforms in the Philippines around providing safe and affordable pharmaceuticals, and responding to HIV and AIDS and reproductive health needs. Michael and HAIN made major contributions to HAIAP resources. He began teaching in the University of the Philippines (UP) in 1985 and became Anthropology Field School Director in 1997, then Chair of the Anthropology Department, Dean of the College of Social Sciences and Philosophy and, from 2014 to 2020, Chancellor of UP Diliman. During his term, he encouraged faculty, students and staff to engage the world outside, including speaking out on national issues. Michael Tan is co-recipient of the Olle Hansson Award 2023.

Presentation of the Olle Hansson Award 2023:

Dato' Seri Anwar Fazal:

I talked about Olle Hansson earlier, the remarkable doctor who had the courage to speak to the world about the atrocities committed by a pharmaceutical company and to write a book about the whole adventure. When he died early of brain cancer we decided that here was a person who has given so much of his life with courage that we should remember him forever and we decided to launch the award for people who stand up like him with courage to do things for society. Today we have two distinguished persons who we are awarding. Both of them happen to be doctors. Dr Claudio Schuftan and Dr Michael Tan. Both of them have gone through experiences in their countries to challenge the systems that were there - health-wise, environmental-wise, participatory systems-wise - to make changes. I have been working with both persons a very very long time. They were also engaged in supporting the breastfeeding movement of the world, and they are men who are also prepared to stand up and support women, protecting them and giving encouragement so that they can take care of their babies. So the first of two awards today: Claudio is originally from Chile but now he lives in Vietnam and he is part of our network.

Olle Hansson Award 2023 - Recipients' response

Claudio Schuftan

I may be the first Olle Hansson award recipient who is a lucky to be a non-affected individual who has taken enterovioform. I grew up with it -- taking it for every occasional childhood diarrheal episode in my native Chile!

I remind you, at least 11,000 persons were affected worldwide by enterovioform [5].

You all know about Olle Hansson's seminal book, *Inside Ciba-Geigy,* so central to what HAIAP is all about. The book was published in its second (English) edition posthumously right here in Penang about 4 years after his premature death at age 49 from cancer.

Interestingly, he died almost to the day 2 months after CIBA GEIGY took the drug off the market all over the world (…so they said) and apologised to the victims shedding crocodile tears.

What we have to learn is that we should become more comfortable to speak out against Big Pharma since Ciba-Geigy's (now NOVARTIS) behaviour was/is no worse than that of most of its competitors. All need to be confronted.

This speaking out means for us today forging much more aggressive relationships with the media; greater stamina to see the battle through including -- like Dr Hansson did, acting as expert witnesses and unearthing secret internal records of Big Pharma, as well as making key contacts and referrals.

Let us not forget how much work there is still to be done: in 2023, the market is still flooded with dangerous formulations -- many of them irrational. But, as somebody said, we are not only talking about hazardous products, we are also talking about hazardous technologies and hazardous policies, not least the TRIPs plus agenda.

Dr Hansson was of the opinion that cooperation with the pharmaceutical industry was possible and he tried to talk to CIBA. Thirty eight years later, I think we have learned this is but a pipe dream.

We have just passed May 23, the Olle Hansson Day - his birthday (Anti Hazardous Drugs Day). It must be celebrated as a day of commitment to action. So, in his spirit, our meeting here must be three days of action for rational drug policies.

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[5] *Eterovioform* (clioquinol) was found to cause SMON (subacute myelo-optic neuropathy). SMON is an iatrogenic disease of the nervous system leading to a disabling paralysis, blindness and even death. Its defining manifestation was as an epidemic in Japan during the 1960s. Its manufacturer, Ciba-Geigy, has publicly stated that 'Medical products manufactured and sold by us have been responsible for the occurrence of SMON in Japan, we extend our apologies.'

SMON was first observed and diagnosed in Sweden 1966, by Olle Hansson. Clioquinol was marketed as a prophylaxis to tourist diarrhoea. Dr. Olle Hansson was in the front line, fighting for a ban of clioquinol. Doctors in many countries boycotted Ciba-Geigy for many years. Not until 1985 was the pharmaceutical withdrawn. Dr Hansson died a few months later. The day of his death, May 23, is observed as the Anti-Hazardous Drug Day in several parts of the world.

In my case, the struggle has been more in related fields. Many of you here know about my work in food and nutrition, in maternal and child health and in human rights (primarily the right to health and to food).

I have been in the midst of challenging and exciting moments in the history of the political economy of health be it in WHO, in FAO, In the HR Council - and, of course in HAIAP, in Peoples Health Movement (PHM) and in the World Public Health Nutrition Association (WPHNA).

A unique bond unites us all here today, a bond of ideals, of common struggles, of dedication, a bond of stubbornness - and I let you add to the list of our bonds. It has been a tough ride. I always say a ride of 2 steps forward and 1 ¾ backwards, but here we are with white hair, bald heads, wrinkling faces and with a scar from our smallpox vaccine -- but we are still at it. If I had a glass right now, I would drink to it!

True, the Olle Hansson Award was not awarded each year. So much more of an honour for Michael and for me, now that HAIAP has made it a point to award it regularly. We all must draw strength and inspiration from this true unsung hero's efforts. Yes, *'Now is the time for Action'* is still the rallying call for the times to come. Long live our struggle! -- a struggle that we simply must pass on to the next generation.

Anwar Fazal: We have the pleasure now of giving the award to Dr Michael Tan and Dr Delen de la Paz from the Philippines will receive it on behalf of Dr Michael Tan who is with us by video link.

Dr Delen de la Paz. We thank Health Action International Asia Pacific and all of you for this award. It is also on behalf of our organization, the Health Action Information Network who was also one of the early members of HAIAP and of course together with the members of the health sector who helped us with all on the issue of essential medicines, rational drug use; and the community people who have also given us the information and have been part of this campaign - which continues up to now. So thank you everybody for this award on behalf of Dr Michael Tan. He sends his regrets because he is currently not well. He would have wanted to be here with all of us. Thank you.

Michael Tan

Thank you. A good day to all of you. I'm honoured to accept the Olle Hansson Award - to do this on behalf of several generations of health and consumer activists in the Philippines. Many of us were actually accidental consumer activists. Most of us were in community based health programs. And when I think back about it we knew very little about the consumer world. But we had been touch with IOCU and with Health Action International and used the materials that you had, the very good materials that you had for our communities.

And it was of course inevitable that we would bring in the issues of medicines because we were involved in health care. And we were in direct daily contact with people involved in the realities of health care including the deprivation of many basic health services - in particular access to medicines.

I smile now thinking about how many of us had to educate or maybe more appropriately re-educate ourselves. Having been taught from very early years in school all the way up to college when we trained as health professionals of the miracles of modern medicine. Medicine could not do any wrong and so too with our physicians and nurses and others. And our perspective on the drug companies were that they they were there to say lives and that their medicines were indispensable, they could do no wrong. We found ourselves, of course, having to relearn the technical aspects of medicine and pharmacology. And more than that, we had to learn about the whole new wild world of business models and advertising ethics and government regulations. These were of course never taught in schools.

One of my first assignments when I when I first came into the Health Action International Network was to attend. The community organisation sent me. I was a kid then. They sent me to attend the first WHO expert committee to formulate national drug policies. This was the very first meeting ever held in the world. And what was I? I knew nothing about about that world but I had to learn very quickly. The representative of the drug companies was a man about twice my age but we became very good friends.

It was a real eye opener understanding that world of WHO and the of big pharma and all. And when I went back to the Philippines after that we had our first Health Secretary under a democratic government.

it is always useful to remember that the early years of IOCU and HAI Health Action International was was a time of great turbulence. Many dictatorships had been set up especially in Latin America and in the Philippines we were under the Marcus dictatorship and at the time I attended that first WHO meeting, when I got back, we already had the democratic government in place and in my meetings with the first Health Secretary under a democratic governance he was very very impressed as I told him about this world of health and consumer

activism. Thia was Doctor Alfredo Bengzon. He was a physician. Fortunately he was very open to the things we were learning. So in many ways we were learning together.

Dr Bengzon was particularly impressed by the work of Zafrullah Chowdhury and GK so impressed him that he pushed for a generics law in the Philippines - one of the most comprehensive of its kind in the world because he and his advisers installed all kinds of safeguards against the tricks of the trade of big pharma which we consumer groups had of course learned. We could produce a textbook on how to trick consumers. Instead we used it to work out a very very good generics act.

Doctor Bengzon was actually one of the first recipients of the Olle Hansson Award. He set up a National Drugs Committee and other mechanisms to introduce rational drug use at different levels. Some had very far reaching effects including price monitoring and price caps. We learned together with him to bargain with Big Pharmacy. They were constantly threatening to move out of the Philippines and we knew they were calling a bluff. Soon we were able to get many of the things that we needed although we had to compromise quite often.

Today we remember Zafrullah and GK. Zafrullah so recently passed away and we do miss him sadly. And Olle in his fight against Ciba Geigy and clioquinol. And we remember the many other pains - from antibiotics to contraceptives - remembering now Andy Chetley and his *Problem Drugs* one of the most influential consumer education materials. All of these reshape government policies, medical education, down to consumer choices.

But thinking back now, we know that the challenges have become even more formidable. We have to keep remembering that our struggles go beyond rational drug use. Our struggles are really tied ultimately to health justice. The Radical Generics Act of 50 years ago was important but today the poor continue to struggle to afford even so-called cheap generics medicines. Moreover the tricks of pharmaceutical marketing continue all the way to the drugstores. For example, drugstore clerks are still taught to offer buyers their options as 'generics *lang*'? 'Generics *lang'* means generics only - actually insinuating that generics are not good for you.This is one of the most powerful tools of pharmaceutical industry and we don't realise that.

The COVID pandemic highlighted the ongoing biomedical challenge as well as access to vaccines - as well as access to information. The epidemic of fake news continues to worsen - almost becoming trivial because they are now supervasive. Deceptive advertisements continue to be a major problem globally. And we might forget that sometimes it is not just about big pharma but because of social media and other traditional grapevines that reflect the general lack of health education and therefore make consumers so very vulnerable - especially around drugs. A surprise I had for example just yesterday - researching on hormones to find that diethylstilboestrol, one of the older oestrogen forms is being sold illegally and online to women in China - trying to curb their wayward husbands' libidos. So I was shocked as much as amused - but shocked. This kind of news does not make it into mainstream media, not into script magazine and medical journals but it is well known so much now that it can probably been said to be part of popular medicine.

I despair hearing of the kid who killed himself because of a *TikTok* challenge involving *Benadryl* or diphenhydramine. The diphenhydramine challenge resonated because in the 1970s it was a very popular cheap drug of dependence. And now we see it being promoted through *TikTok* for childish pranks that can be fatal. The *TikTok* diphenhydramine challenge involves consuming large quantities of diphenhydramine.*6* Men of our causes have been co-opted in terms of distorted information around medicinal plants. The word 'natural' I now find one of the most despicable terms in advertising. In terms of supplements which prey on the poor I think of a recent research project we completed the Philippines where we found peasants were paying 40 pesos that's US 80 cents for a sachet of so-called power or herbs that turned out to be nothing more than sugar according to our lab analysis.

We need to keep reminding ourselves that our struggles have been mainly around information. And that there are so many new and often insidious channels for misinformation. We must find new platforms and new strategies to get to the different stakeholders and partners. But most importantly, we need to be vigilant about safeguarding our rights and civil liberties. All through the last 50 years our struggles for rational drug use have been related to a vibrant community based health activism where we utilised whatever spaces were available

[6] The challenge involves participants taking 12-14 pills, nearly double the recommended daily dosage and ten times the recommended dose for a six-hour period, of the over-the-counter-drug diphenhydramine to induce hallucinations, and filming their side effects. According to the FDA, participating in the dangerous trend can lead to 'serious heart problems, seizures, coma, or even death'.

- to speak on health issues. The space has been narrowing over the last few years. Fifty years after martial law we have elected the son of the dictator Ferdinand Marcos as the Philippines president.

The space has been narrowing over the last few years and COVID saw a weaponisation of the pandemic in the Philippines. The new Anti-terrorism Act that was passed during the pandemic now allows detention without an arrest warrant. We've seen arrests and even the outright execution of physicians and health professionals. I remember the recent anniversary of a dear friend who was 69 years old. She was executed in 2020 during the COVID pandemic during a military raid. She was serving in rural areas.

In our senior years, we need to continue to draw hope from the young. But it is not enough to just be hopeful. We need to continue to tell our stories and to join in campaigns in communities, in the parliaments of the street - to be able to rage with our anti-hypertensives on hand against the dying of the light. To tell our stories we need to remember as we do today through the hands of Zafrullah Chowdhury, the many organisations, Health Action Information Network in the Philippines together with many of our sister organisations and many many more. We remember all of them because the future of health care in the world depends on those memories and what we can do about it. Maraming salaamat. Thank you all.

Access to affordable medicines and technologies - 'TRIPS' and equity: **Beverley Snell**

Good morning everyone. It **i**s lovely to see you here again. I think you're possibly all quite aware of all these words like TRIPS and intellectual property and patents and you are aware that there is something to do with them that makes the prices of drugs very very high and that there are battles going on that are hard to win. So, I hope we'll be able to make you understand what it all means.

The patent given to a new medicine is the thing that gives it a really high price. Under the patent there is an exclusive right to manufacture, sell and import a new product at a set - extremely high - price. The process, even the technicalities of making the drug, can also be patented it. The patent is granted by the government under national patent laws so the process is enshrined in law.

Where did this outcome come from? The World Trade Organisation (WTO) was formed in January 1995 as the international organisation to establish, revise, and enforce the rules that govern international trade. The WTO facilitates trade in goods, services and intellectual property among the 164 participating countries. According to the WTO *Agreement on Trade-related Aspects of Intellectual Property Rights* (that is 'TRIPS'), for a patent to be granted, the product must be new, and involve an inventive step, and must have industrial application as well. The TRIPS Ageement set the global standards in 1995 and it requires the patent duration of 20 years from the date that the patent application was filed in the first place.

For medicines, the primary patent is applied to the molecule of the compound - that is the core of the medicine. Twenty years from the date of patent application is granted but the country's own patent law affects the process as well. Secondary patents can be granted additionally to the primary patent, for example, for slightly different formulations and combinations, and different dosages. But although none of these have much impact on the therapeutic benefit of the product, each secondary patent can be added at a different time later so that the patent can end up with more than 20 years. It can just go on and on.

These additional patents are called 'Evergreening' and they are industry tricks to ensure their products are patented for a long time. It is common practice of pharmaceutical companies to extend their monopoly by making tiny changes to existing medicines. There can also be a new indication for an existing medicine or the same medicine in another form.

An example is AZT (zidovudine). AZT was invented and patented in 1964 for cancer but the HIV indication turned up in 1986. So the company repatented it. AZT is an old old medicine, newly patented in 1986 at a huge price.

Another much more recent example was totally outrageous. Pyrimethamine has been marketed since the 1960s for parasitic infections like malaria - at a cost of less than a dollar per tablet. It was remarketed in 2021 by Turing pharmaceuticals and repatented for HIV and some cancers because the company found it was effective for those. They were selling it for $750 per tablet. Martin Shkreli was the CEO. There was a huge fuss and general condemnation that led to Mr Shkreli being jailed for seven years for 'securities fraud'. I don't know what that means but he was soon released of course. However, he is banned for life from serving in any capacity in the pharmaceutical industry. Shkreli has also been permanently barred from running a public company.

Before TRIPS, countries used to have different durations for the recognition of patents and some countries believed that medicines should not be painted - they should be freely available.

Now monopolies are being created. Many products that have been available for many years and at a reasonable price are now inacessible. The evergreening through secondary patents is a major contributor to the maintenance of high prices.

There are huge implications with a patent lasting 20 years - or more. The patent owners can charge what they like. And the price is nothing to do with the cost of production.

The marketing price of a product is what the market will bear or what the shareholders would like. The producers' justification for high prices is that they need to recover costs of their original research and development, which they say is millions and millions. But often the actual drugs have been discovered and developed in the public sector. The pharmaceutical companies often do not pay for the research and development. And when have conributed to the reseacrh and development, they inflate the costs. So, in reality, for companies, it is not people's health that is paramount, profits are paramount - shareholders before patients.

However, there are legal mechanisms to enable affordable access to new products using *TRIPS flexibilities*, but pharmaceutical companies and their governments do everything in their power to sabotage the rightful and legal use of these flexibilities to access affordable medicine. The flexibilities are there to be used and they are legal and they should be usable but it's very hard to use them.

So, why did TRIPS happen?

At the end of the 70s, for around 10 years as the essential medicines concept and the recommendations of generic medicines were worrying the pharmaceutical companies, the companies aggressively lobbied the US and European Union and Japan behind the scenes to come up with something that would stop the access to affordable essential medicines.

In short, the TRIPS Agreement was developed because WHO had been advocating for affordable essential medicines and that threatened multinational sales. Meanwhile, activists were highlighting the abusive industry practices and their misleading labeling and advertising. People were beginning to understand that they could get affordable generic medicines and international activists were campaigning to limit multinational power in the 70s and eighties.

There were also efforts to transfer pharmaceutical technology to developing countries. India enabled development of a very strong generic pharmaceuticals industry very early and we've heard about what happened in Bangladesh in 1982. Gonoshasthaya Kendra in Bangladesh had a pharmaceutical industry that was producing good quality, affordable medicines - essential medicines that people needed; and a strong people's health movement with links to ministries of health had developed. Multinationals did not like that.

New medicines and vaccines and technologies for controlling many life-threatening diseases have become available now but they are very very expensive because of all those mechanisms that were put in place through the WTO - making asccess to new essential medicines far beyond the scope of people in low and middle income countries. People in rich countries can often afford them so they will buy the new expensive products.

Provisions that are meant to facilitate affordable access to people in low and middle income countries

What are the factors behind the barriers to access?

So many words are floating around but what do they mean? TRIPS aims for harmonisation, equal difficulties everywhere, reduced impediments to trade (multinational trade), 20 year at least patent everywhere. Why? To promote technological innovation and transfer for the mutual advantage of big pharma producers.

First - underpinning the TRIPS Agreement there are intellectual property mechanisms that have an effect on whether you can get affordable access to expensive new products. Medicines companies are patenting their new products for 20 years and marketing at enormous prices and that process is controlled by TRIPS.

But there are *TRIPS flexibiliites* that mean new products can be legally available as generics at lower prices through compulsory license. Compulsory licence - that's a term we need to understand. Parallel import - another term, and some other mechanisms. Generic products are cheaper than original products and under the TRIPS agreement they can be available.

At first the TRIPS agreement was meant to be in place for ALL countries including the low income countries by 2005; then it was extended for the low income countries to 2034.

The World Trade Organisation wants 'harmonisation' - everybody to be the same - 'to reduce impediments to trade'. Trade equals money. And the rich WTO member countries want to promote technological innovation and transfer to the mutual advantage of producers - not of people.

The 20 year patent from the date of filing the application guarantees at least 20 years of high profits. Pre TRIPS about 50 countries did not provide for pharmaceutical patents. If a country allowed patents, that **country could decide on the duration of patents and how much medicines would cost.**

TRIPS Agreement flexibiliites

In the TRIPS Agreement, Articles 30 and 31 spell out flexibilities that allow compulsory licence for a the manufacture of a generic version of a new product with permission of the original patent owner. Provisions for using compulsory license must be enshrined in each country's patent law before that country can access the flexibilities. That means that the country's legislation - patent law - must be in place to allow these procedures to be used. If the leglsation is not there, a government can't make use of the Compulsory License options.

Grounds for use of compulsory license can include public interest, public health need, promoting domestic industry for generic production, as well as for non commercial government use. Even rich countries can access generic versions of very very expensive products if they are not to be sold in the private sector. If there is a national emergency 'government use' procedures for accessing necessary medicines are simple and fast - or should be.

When HIV became a huge problem, there were no drugs available for treatment. When treatment was starting to become available one HIV activist was noted to have said, '*when I started campaigning for the rights of people to access appropriate medicines for the treatment of HIV, I had no idea I would need to have a complete knowledge of international trade law*'.

But Articles 30 and 31 *allow* compulsory licensing to manufacture or access medicines without permission of the rightful owner in circumstances that can be decided by each country. However, there are exceptions to permission being granted. Access must be limited. It can't be forever. *And it must not cause unreasonable conflict with the exploitation of the patent, and it must not unreasonably restrict promotion*. So that means if a multinational corporation thinks that a country is making drugs available affordably and interfering with their profits - that can be a reason for it not allowing affordable access to happen. Compulsory licence is not allowed to 'unreasonably prejudice legitimate interest of the patent holder'. It should not lessen their profits. These are the big points that the big pharmas and their governments exploit.

Compulsory licensing is a mechanism that allows a patented object to be manufactured and produced, or procured from another place that has a compulsory licence, without the permission of the rightful owner. For example, a small island in the Pacific that has no manufacturing capacity must have a special compulsory licence to be allowed to buy from India or Bangladesh where a compulsory license is in place for production. Both purchaser and producer need to have the appropriate compulsory license.

Before the WTO and the TRIPS Agreement, Canada did not respect patents on medicines. Canada had a compulsory license for new medicines from 1923 to 1993 - meaning that country had access to essential generic medicines at about half the price of brand name drugs - including new medicines.

What is a generic? You must not get mixed up between generic and counterfeit as some governments have. A generic is an authorised copy of a product that was originally marketed by patent or trade name, that after 20 years can be freely produced as a generic - like paracetamol. Authorised generic copies of new products can also be produced according to the TRIPS flexibilities Articles. Generic medicine must pass the same quality control as original patented products. So, countries must have the capacity to inspect and control quality if they wish to produce generic medicines. The name of a generic usually reflects the international non-

proprietary name (INN) name, for example *Valium* is diazepam. The generic product can also have its own brand name - as well as the INN. *Alprim* is one generic brand of trimethoprim.

A counterfeit product is deliberately made to deceive. It is an illegal attempt to make a product that imitates someting it is not. It is a fake. There can be wrong ingredients, insuficient ingredient or no ingedient as well as fake packaging and labelling.

Misinformation is circulated that generics are poor quality to discourage people from buying them. Generics must not be poor quality. They must be equal quality. Generic copies of new medicines can legally and rightfully be produced using TRIPS flexibilities.

Another flexibility is the *Government Use* clause - a special case of compulsory licensing, it is the easiest to use but it is still not easy because of the barriers put in place to discourage its use. Medicines produced or accessed under government use license cannot be sold commercially, but that is not an issue for medicines that are urgently needed for public use. All World Trade Organisation member countries may use that alternative, even rich countries.

One example - in 2001 the US government was about to buy generic ciprofloxicin for government use to stock up because they were scared of an anthrax outbreak. Someone had started posting envelopes containing white powder that was analysed as anthrax spores and it was feared that spores would be widely and dangerously dispersed. The US governmnent tried to buy huge quantities of generic ciprofloxacin - which they would have been allowed to do - using the government use clause. But Bayer Pharmaceutical company feared loss of revenue and offered an alternative. They would provide Bayer ciprofloxacin for 54% of the original price. Then three other manufacturers said they would supply large qualities of their antibiotics free - if the Food and Drug Administration (FDA) approved their products for free treatment of anthrax. But the anthrax emergency didn't happen anyway. It was a big false alarm.

Despite all legal flexibilities that give access to new medicines and technologies it is almost impossible for countries to use the flexibilities because the pharmaceutical companies 'do deals' with governments and make other barriers.

Some examples of battles

In 1999, Thailand was able to make didanosine (DDL) for HIV infection but they had to fight a huge battle that did not finish until 2004.

Thailand's Government Pharmaceutical Organisation was ready to manufacture DDL and asked for permission to use a compulsory license - for a reasonable royalty - to produce the drug under the patent flexibilities. Public health activists and the Law Society were supporting the plan but pressure from a US in the form of a free trade agreement and other trade pressure on the government meant that they were scared. Legally, it could be done. But Thailand was too scared because there would be trade sanctions. After an increased campaign until March 2004, the pharmaceutical company gave up and Thailand manufactured the DDL anyway.

South Africa needed fluconazole for opportunistic fungal infections in HIV patients. South Africa's own patent law recognized Pfizer patents. The cost of Pfizer fluconazole was $415 a day while the cost of the generic version was only 29 cents per tablet. Zachie Ahmat was a leader in South Africa's *Treatment Action Campaign* (TAC) and he went to India and he bought generic fluconazole in India and it brought it through the South Africa customs where he was caught and imprisoned.

MSF and the TAC lobbied for Pfizer to reduce the price to $60 a day. Pfizer still refused but they offered to donate. Donation is not the answer. There were to be onerous reporting and training requirements for Pfizer-selected doctors only. It was really a clinical trial for Pfizer and the use of the drug was restricted to cryptococccal meningitis. That is not what they were asking for - fluconazole was needed for thrush - and there was a time limit on the donation.

With donations there are always strings attached - donations are not the answer

Finally, generic fluconazole import was allowed but only for pilot programs run by MSF. MSF was the only organisation that was allowed to buy it and use it. All that happened in spite of the legal base. The South African government would not commit to the use of the compulsory license but under pressure they did allow the treatment programs. The TAC and its supporters continued to campaign to convince the President and others of the efficacy of and the need for anti-revivals but that was another problem.

President Thabo Mbecki was one of those people who said HIV didn't exist - that it was all in the eyes of the western world - so he himself was a problem. Finally, the fluconazole patent expired in 2004 and a new President eas elected anyway.

Also in South Africa, 39 medicine companies tried to sue the South African government for making affordable medicine available. South Africa's own National Medicines Act allowed the import of generic medicines. Those 39 medicine companies sued South Africa to prevent its own act being used because there could be a negative impact on company profits. In a court case in May 2001 they claimed violation of commercial rights and interfering with their profits. The whole world mobilised, and armed with the facts, South Africa's TAC with international NGOs and signatures from 300, 000 people from 130 countries campaigned against these companies. The European Parliament eventually passed a resolution against the 39 companies and they had to withdraw in shame. The Court cancelled the case. That experience shows we really must be alert and ready to activate ourselves when the wrong things are happening.

The Doha Declaration in 2001

In 2001 there was a high level WTO meeting in Doha. Activists, International NGOs, and World Health Assembly pressure were able to convince the participants at this meeting that public health must take precedence over commercial interest. Use of TRIPS flexibilities must be made easier.

The outcome was the *Doha Declaration* that was agreed and signed. It was declared that public health concerns must override commercial interests and that there must be a clear road map to use of the key TRIPS flexibilities. According to the Declaration countries are free to determine the grounds for compulsory licensing and they are free to determine for themselves when they have a national emergency. Permission to declare a national emergency does not come from the US or anywhere else.

Where medicines are beyond the reach of the people who need them, governments can override the patents without negotiations with the companies; and without fear and threat of retribution - for public non-commercial use particularly under the government use clause; and countries can make their own rules about parallel imports. They can use cheaper sources of medicines they need. Even that can be impossible due to multinational pressure.

Importantly, the least developed countries were granted a longer time for complying with the WTO procedures. That deadliine is now extended to 2034.

So the use of TRIPS flexibilities is available rightfully and legally to all who need them. Compulsory licenses - mostly for government use - have been issued for HIV medicines in Malaysia and Thailand, Indonesia, Zimbabwe, Ghana and Brazil and a few others. Thailand's government use system is operating.

But there are conflicting interests that get in the way of being able to use these legal flexibilities easily.

There is a clear case for compulsory licensing and parallel importation and the technology is clear. Governments are responsible for the health of their people and ensuring access to effective medicines is one of the main responsibilities.

Pharmaceutical companies feel priority responsibility to their shareholders to develop effective medicines which can be sold profitably.

So there is a conflict.

You can see there are conflicts between the agendas of multinational companies the public health sector; and national and international laws try to regulate activities.

There is always pressure from the big pharma and their governments when low-income countires try to use compulsory licensing or parallel import and then free trade agreements are conducted secretly behind doors between governments. Free trade agreements can override national legislation. So that's another thing we have to be aware of. It is necessary to find what they are talking about in these secret meetings - to find what they are planning and to stop them.

So as it stands, compulsory licensing and parallel importing may be difficult to use but they have been used several times. They're not easy answers to solving medicine access. Problems including new medicines for cancer and other life threatening diseases all have the same issues.

The primary responsibility for improving access to medicines lies within each country and all their own elements have to be in place. That is where the activists come in - to know what's happening - make sure negotiations are going in the right direction.

Having compulsory license and other flexibilities available should help improve access to new medicines Now, with this last pandemic, a lot of things have become very visible. At the beginning of the pandemic, governments and pharmaceutical companies pledged commitment to public health and affordable access for all over profit. New effective products were developed gradually, almost entirely funded by the public sector, not by the pharmaceutical companies. Commercial production by Big Pharmacy was undertaken and the resultant medicines and vaccines were marketed at enormous cost, completely inaccessible to all but the rich countries. Big Pharmacy and big governments forgot their commitment to people over profit and have attempted to block every effort by the lower-income countries to use the TRIPS flexibilities to gain their rightful and legal access to affordable products.

Now, led by South Africa and India in the World Trade Organization, most world countries have appealed for a waiver of all the hurdles that have to be jumped before proceeding to get access to afforable medicines. Powerful countries will not accept the waiver.

The final Trade Organization decision on affordable access to vaccines which was in June 2022 was limited and ineffective. An attempt to extend even the weak decision to therapeutics and diagnostics is still opposed by powerful members of the World Trade Organization. The battle goes on.

Meanwhile, Malaysia has successfully proceeded with a compulsory license for import of hepatitis C treatment medicine and Yoke Ling is now going to tell us that story. Malaysia has achieved some good outcomes. Thank you.

Malaysia case study - Use of compulsory licence for Hepatitis C treatment: **Chee Yoke Ling**

In Malaysia we have more than 400,000 people suffering from hepatitis C. It is a major public health concern. People with the disease don't know they have the infection and it is only many years later that some of them develop liver cirrhosis or liver cancer.

The treatment in the past with interferon was horrible and often toxic. The treatment was also for a very long duration and the cure rate was also very low. We have been waiting for new medicines to come into Malaysia, and then wait, wait, wait, wait, wait, it's been more than ten years.

When DNDI was studying the Direct Acting Antiviral (DAA) landscape, they came across ravidasvir and we also found out that an Egyptian Pharmaceutical Company, Pharco, had done a clinical trial using ravidasvir and the results were very promising. This was a major breakthrough for the treament of Hepatitis C but the issue was the cost. It's very expensive. Not many people could have access to the treatment.

DNDi or Drugs for Neglected Disease Initiatives is a non-profit organisation that works to get treatment for neglected populations. DNDi together with the Ministry of Health in Malaysia and the Ministry of Public Health in Thailand conducted a clinical trial on the safety and efficacy of ravidasvir for Hepatitis C. There was a 97% efficacy which made it comparable to the other DAAs and was better tolerated by the patients. It has fewer side effects and it had a better cure rate.

A project of this magnitude and complexity requires a number of partners. So together with agencies and other societies we could make the impossible possible. For all of us who have been involved, we are extremely excited that now there is a treatment option, an affordable treatment option for people with infections. We can tell the patients now. There is a treatment for you right now because you all have been waiting. We also have been waiting.

Almost 100% of those patients who were treated on this clinical trial cleared the virus. The target of WHO is to end hepatitis C by 2030. The question is how to achieve that goal? Our part now is to try as much as possible

to get as many people as possible screened for hepatitis C and those who are tested positive should be accessed for treatment.

It would be a magical journey for me. There is no doubt that we have challenges, we have lots of problem issues along the way. This thought is so fulfilling and great and we are going to walk through the journey together until the finishing line. Our friends here today from the Lambaga (Inland Revenue Board) and National Pharmaceuticals Regulatory Agency (NPRA) were part of this process.

For many in Malaysia this is still a new story and that is why we need to tell it - so all in the country know. I would say I have seen this story five times but every time I see the end I cry a little bit because it is quite an amazing thing.

Let's go back a few years. What I'm going to do very quickly now is to just share a little bit of Malaysia's experience. I know many of you - in fact most of you if not all the students here - probably for the first time are listening to things like patents and TRIPS and compulsory licence - all these words - and we all think - Oh my god what are those things? But it is important to know - we all can understand.

Karina and I are lawyers we can't even pronounce the names of the pharmaceutical ingredients so we had to learn about pharmaceutical ingredients and medicines names and what they doas well. So you can all also learn about patents and intellectual property law. If we learn together and work together we can achieve many things. So just to recap. Beverley was talking about compulsory licence and one special type of compulsory licence which means the government gives permission for the licence to be used. It could be a government agency, it could be a company identified by the government to be able to manufacture, import or sell a product that actually has been patented. It means a monopoly has been created but you have ways to actually overcome that and this is what we call government use, for non-commercial use.

In Malaysia it is in our patents law - and you must have this in your local law otherwise even though it's allowed internationally you cannot do it. So in Malaysia, it is in section 84 - and it's called Rights of Government. In the TRIPS agreement it is called public non commercial use and it says - where there is a national emergency or where there is public interest in particular national security, nutrition or health issue or the development of other vital sectors of the national economy - the non-commercial use clause can be used. In this case it's about pharmaceutical sector. But the clause applies to all products and all technology, not just medicines. So if the government decides we require this product or technology, then we can actually allow the patent to be used by somebody other than the patent holder.

There is very often a misunderstanding that you can only use compulsory licence or government use rights of government in an emergency. No, emergency use is only one of the situations where the clause can be used. So you see - if your law provides for a wider range of situations - and we have it in Malaysia including for public health, nutrition, and development of local industry - you are allowed to do this. You can even have more flexibilities as long as they are reasonable.

In Malaysia, the intellectual property jurisdiction is under the Ministry of Domestic Trade. So the Minister of Domestic Trade will be the one to issue the licence after the Ministry of Health decides that it needs it to be done.

If you want to have a non-commercial or government use licence there is no need under the TRIPS agreement to have prior negotiations with the company. But of course in practice most Ministries of Health will try to negotiate a lower price. But just to understand - if a government or Ministry of Health looks at the numbers - the disease burden - and decides we need it, they do not need to negotiate. Why? Because negotiation takes time. Some of these negotiations have gone for two, three, four years. Some examples are those that Bev showed in the early years like in South Africa. Because they didn't use compulsory licence it went on until 2004 , about eight to ten years. A lot of people will die while we are waiting to negotiate. Or there can be pressure on the government so they don't dare to do what they can legally do. Malaysia used this government use clause, but even in Malaysia we've only used this mechanism twice since the TRIPS agreement came into being.

The Doha declaration did not create new rights. It just made it very clear that there are legal rights. All those things you can do **we**re already in the TRIPS agreement since 1995. But governments do not understand, or they don't understand fully, or they are getting very wrong advice. Perhaps they are getting technical assistance from the World Trade Organization which is very pro private interest; or maybe they get training from the US patent office, European patent office, or Japanese patent office who have a lot of commercial interest, because these are countries with the technology and their companies own monopolies around the

world. If **they** get the wrong training, your patent office, your intellectual property office will have the wrong approach to looking at the issues.

After the Doha Declaration in 2001 there was a big fight in the World Trade Organisation and there was a lot of activism from patient groups, civil society groups, health groups, physicians, who emphasised that intellectual property must not be a barrier to public health and access to treatment. The Doha Declaration clarifies and reaffirms what we can legally do!

So after 2001, there was more confidence among many countries. Many of us came home to the national level and started working with Ministries of Health especially, and also educating the ministries responsible for intellectual property because they **are** often the ones who say *'No! we don't want to go there'; 'you know that if we do not respect patents, if we don't respect intellectual property, foreign investors won't come'.* We have to make people realise there is a right to health and the cost of not treating is higher, not just in human lives but even in relation to economic numbers, than if you actually were to keep buying expensive products.

Malaysia was the first country after the Doha Declaration to use the compulsory licence for government use **-** in 2003 **-** and that was just to import generic medicines for HIV. We imported three or four types because we did not have manufacturing capacity at that time and we imported generic products from India. It was only for two years because just through using that, the prices dropped by 80%! Once the generics came into the country, the originator patented prices started to drop. Some dropped 40%, some 50%, and some up to 80% because there was competition in the market.

For government use, we were only using the imported generics for government hospitals and university hospitals. So, the private sector was still available for the patented product but the competition drove all the prices down. Because the government imported the generics from India, during that particular period in 2003 2004, the average cost of MOH treatment for HIV per month per person dropped from $**US** 315 dollars to $**US** 58 - almost 81% reduction in the cost of treatment for MOH!

This price drop allowed the government to expand treatment and today the prices of all these HIV drugs have gone down very low because there is more production. Also**,** patent times started running out. Their 20 years was finishing.

We have had a free HIV treatment program in Malaysia for many years and we've been able to fight HIV quite successfully, as many countries have around the world**,** because generic medicines are available. So the HIV treatment is just one example - to show you that even in 2001 when the prices of the patented originator drugs were so high - they were $US 286 per day - their price dropped to US$ 57 per day when we issued our compulsory licence to import. The companies were still making money when they dropped to $57 which shows how much money they were making before there was competition, when they had a monopoly. When **a** company is the only supplier in the market **it** can charge whatever **it** wan**ts** to charge. It was the same with AZT (zidovudine). AZT was actually used for cancer and other purposes for more that 30 years and then the company got a new patent because they found it could be used successfully for HIV. The price was crazy - about $US 8000 per year - and people were dying and not being able to be treated all over the world. Eventually AZT price dropped.

Some examples from 2003 show it wasn't easy when our Ministry of Health first started working on this issue. They had to learn about compulsory licence and government use and there was a lot of resistance from the industry. In addition, there was also lack of understanding from our intellectual property office so there was a lot of convincing to be done. In the end the whole cabinet actually supported the use of compulsory licence.

Now I want to jump to hepatitis C. This was a very unique story because it was originally about a clinical trial to try a new molecule that could be used to treat hepatitis C. It was a very successful experiment and you could see that. Now the drug in question- ravidasvir - has been registered. Malaysia was the first country in the world to register ravidasvir - another very historical thing. We have friends who are here sitting at the back who were in NPRA at that time, and we also have the Lombaga people here today. It was a big fight. Every time the MOH had to really fight for public health and for the right to be able to use the legal flexibiliies, they have to do research on the numbers. They have to do research on the cost. They have to learn about intellectual property to be able to debate with other government agencies, to be able to fight for these rights. And they were also working with patient groups and **c**ivil **s**ociety groups.

Our hepatitis C situation in Malaysia is roughly estimated to be a disease burden of about 400,000; and we have different genotypes - different types of hepatitis C. For a long long time there was an old treatment - interferon - that was very painful, not effective and with horrible debilitating side effects. Patients could only be treated in the specialist hospitals because there had to be tests to determine which genotype of hepatitis

C they had. That was really time consuming and painful. Patients in the rural areas had huge difficulties. There were only a few specialist hospitals that could provide treatment and it was all by injection. There are different genotypes and depending on the country there is a different disease burden.

What is so good about the new drugs is that it doesn't matter which genotype, the same treatment applies. That is the beauty of it.

When this new drug came into being, its patent status was unfortunately recognised in Malaysia. Now another drug - the main drug - what we call the backbone drug - sofosbuvir - is there. You need that. The story I told is actually about the second drug you need to use - ravidasvir - and then you need to add it to another main drug.

Our ravidasvir story is about finding a treatment option that is not patented, or which is open to licence so we can access that option. Ravidasvir was a new option for us to work with but you still need sofosbuvir.

This is what happened in Malaysia. The company concerned, Gilead Sciences, had gone round the world more than 20 years before to start filing application for the sofosbuvir compound. So we have a sofosbuvir **product** patent that will only run out around 2027. So the status was that we were locked up in a patent for sofosbuvir - the backbone drug. You need that.

This most needed product for hepatitis C around the world is from Bristol Myers Squibb (BMS) and luckily, for some reason, they didn't apply for a patent in Malaysia. So we didn't have a patent problem with that and it was possble to get the generic. So in 2014 - all these new drugs came around that time - the whole world was saying *'my god this is a miracle drug - if you screen early, you diagnose early, you take 12 weeks and you are cured.*' It is very rare in public health to find a medication that can cure. Without a cure for hepatitis C, you progress to cirrhosis and cancer.

There was so much pressure, but where the product (sofosbuvir) was patented, even the developed countries couldn't afford it. The UK National Health Service said they could not add it to the UK's treatment program because it was too expensive. The Minister of Health of the Netherlands testified in a United Nations high-level panel hearing that the the Netherlands could not at that price use it, and in the United States it was $US 84,000 US for only sofosbuvir, for 12 weeks - that's about $1,000 a pill a day. It really raised a lot of controversy and pressure all over the world from health activists and patients.

So in 2014 Gilead did a very clever thing (for them). The company went to about 11 generic companies in India and offered them a voluntary licence. A voluntary licence is something that a patent holder can give voluntarily. The company can say *'I'm a pharma company, I have a patent for 20 years. I can choose to give three companies... one company.. a licence from me. It is voluntary. I can negotiate with you, you can manufacture, you can sell but you pay me royalty, 50%, 40%...'* normally it's secret, you don't know how much. But a voluntary licence can be very problematic. They can ask a very high royalty. *'So as a generic company, you get a licence from me but you still have to price it quite high because I'm charging you high royalty.'.... 'I could also put conditions, for example you can only sell to these countries and not those countries. Because as a patent holder I want to keep all the richer countries for my original product'. 'So if I give a licence to you for a generic I will tell you - you cannot go to Malaysia, Thailand, Brazil, South Africa..... because those are middle income countries and I want to charge higher'.*

Most of the time they will not even give a voluntary licence to a generic company because they don't want competition. So voluntary licence actually is not very helpful.

But Gilead, anticipating that some countries might start using compulsory licence went to India and locked in the 11 biggest Indian companies to sign voluntary licence with them - Gilead Sciences. This drug - sofosbuvir- is not difficult to make because the patent office of Egypt examined the application and said that this application lacked inventive step and novelty. There was literature to support their judgment. Egypt's patent office is a very progressive office. They are one of the best pharmaceutical assessment patent offices in the world and they said that this does drug not deserve a patent monopoly. Egypt was the only country that was manufacturing.

So, first sofosbuvir generically was needed in Egypt and they have more than 10 million people who need treatment. It's a huge national health crisis. There was the one company *Pharco*. They were the only one -why? Because the rest of the companies that could make generic sofosbuvir had all signed the agreements on the voluntary licence with Gilead Sciences and then they could not export to countries like Malaysia which are middle income! So,they only exported the poorest countries. It was really a bad deal.

So, for us in Malaysia, the cost was very expensive. The old treatment that didn't really work, had lots of side effects, even making people suicidal. And even that old treatment was expensive. It was costing almost $US 40,000 in the UK and about $US 67,000 in the US. Even in Malaysia it was expensive and we were treating very few people.

The sofosbuvir was priced at $US 84,000 in the US and the patent on the compound expires in 2027. Another pro drug with a secondary patent was also patented in Malaysia and it will only expire in 2028.

When this whole thing started in 2015 and 2016, when this drug was becoming available, the company had already patented it because they knew the molecule in advance. By the time the medicine was registered by the drug authority the patent has been there for many years. A very interesting study was done by the University of Liverpool where there is a team of people who track generic active pharmaceutical ingredients (APIs). They track all aspects of production and the cost and they are very very good team. They have a great database and we all use it a lot.

The team did a study back in 2013 and the first sofosbuvir production cost was estimated as $US 2-4 per gram. Using that estimate plus some market profit margin, the Liverpool team found that you could be charging $US 68 to 136, for 12 weeks, depending on how much profit they want to make $68 to $136. At that price production cost is actually very low. And yet the first country price was $US 84,000.

According to the team, at the real production cost and with some profit margin, within 15 years, you could actually drop it down to $100 to $200 for 12 weeks, if there was more and more production by different companies.

So the question we were asking ourselves in 2015 was, do we have to wait for 11 years until the patent ends before we can start trading in Malaysia? What happened was the MOH started negotiating different rounds over two years. I remember we held a workshop in 2015 and we invited the Ministry of Health. They came and they asked us *'what is the disease burden'? 'What are the challenges'? 'Now we have this option but we cannot afford it'* **.....**

The miracle cure was there but we couldn't afford it. So we decided to work together. We said *'look there is this thing called compulsory licence. Let's do it, okay?' 'Let's use it because we used it in 2003 and we should be using it more regularly'. 'Let's just use it, okay?'*

In the private health care sector the cost was about 300,000 Ringgit (**a**pprox $US 60,000)**.** You could buy the originator. We checked a hospital here in Penang. Somebody got treated there with sofosbuvir plus daclatasvir.

There was no generic sofosbuvir, so even though daclatasvir was not patented, only the originator sofosbuvir could be bought to use with it. Without generic sofosbuvir the total cost for this patient in one of the hospitals in Penang was 450,000 Ringgit ($US 90,000) for 12 weeks. How are we going to afford that? Our average income is around 5000 Ringgit and most don't earn 5000. Then Gilead, in the negotiations, offered a combination of sofosbuvir and daclatasvir and they were offering us at about $US 12,000 dollars - about 38,000 Ringate. This is still too expensive.

At the same time, DNDI came in and said, there is actually a new drug being developed. For research purposes and clinical trials, you can bring in a generic that is an exception in the TRIPS agreement. So, although there were two patents already on sofosbuvir, we could import a generic sofosbuvir legally for the clinical trial and the same company Pharco was also producing and working on this other drug ravisadvir for clinical trials so we could do this clinical trial for sofosbuvir plus ravisadvir and this is done in Malaysia**.**

They started a clinical trial a bit later in Thailand and they also started doing it in Egypt and that allowed us to bring in patients and to treat them as part of trials. There was more than 95% success rate with hardly any side effects! That is the success story of ravidasvir and then it was necessary to get that drug registered because it was not registered anywhere else in the world. So so we had that combination (ravidasvir/ sofosbuvir) and in 2021 there was a conditional registration. In 2022 we had the official launch in Malaysia of this product! So this is also very important because it is a development of a new drug using what we call South South cooperation. So we had Egypt as a supplier. We had Malaysia learning to do the clinical trials. And developing the possibility of making our own DAAs in future. The Ministry of Health was coming in as well as working with Thailand and their Ministry.

So this is actually the neglected di**s**ease initiative that is trying to challenge the traditional way of thinking. The only way to have innovation and new medicines is NOT to give the incentive of patents **for** 20 years and 40 years of monopoly. No. You can do it in the public way!

So the options we had in the end were okay and we knew what to do. This is only one example. It could be a cancer drug. It could be a heart disease drug.

So for treatment, one drug is there because it remains a backbone and you do need it. Now we have different combinations and Malaysia has introduced a new combination that is not controlled by any of the big pharma companies.

We know we could always try to negotiate a price but we know negotiation is very difficult; and if there is a monopoly, how are you going to negotiate any better price? You always need competition in the market. You could ask for voluntary licence and hope for an affordable price or... or hope that there will be a voluntary licence or donations. No! Completely terrible ideas.

The other option is a compulsory licence. Malaysia went for that option, in early 2017 in August. This story is the result of a process that was very difficult. There was a lot of pressure. Not just from the drug company, but from the US Embassy, from the big pharma association. They threatened that they would tell the Minister of International Trade - that threat again. We know our Ministry of **H**ealth - why are they behaving like this? The threat is that nobody will come and invest in Malaysia - the same as the threat to Thailand when they prepared their compulsory licences. There is also a threat that new medicines won't come into your market. It never happens like that. They threaten you but it doesn't happen. Because in the end, they are still selling their medicines in your markets.

So, there was authorisation for the government to import sofosbuvir for three years. The price is $US 120 for three weeks of successful treatment. Meanwhile, of course Giead didn't give up. They were trying to pressure the government not to use our Compulsory Licence procedure. So, the decision was made in early August**,** and then on August 24, a few days before the Ministry of Domestic Trade issued a licence for the company to to bring it in, Gilead Sciences sent a tweet. Malaysia is included in their voluntary licence with the Indian generic companies!

The other countries fighting for compulsory licence were Ukraine and Belarus. In Thailand there was not much campaigning but Gilead didn't want to make it look like they were giving only to Malaysia. So they included a few other countries. So our friends in Thailand, Ukraine and Belarus all say *'thank you very much Malaysia, because you fought so hard for the compulsory licence'.*

Gilead wanted to stop us from using the compulsory licence so now they say - we'll now include you into the VL. But to go into the VL you we must also make sure that the company from India wants to come in. It's a commercial decision. And then India needs to register the drug. **T**he drugs have to be registered. Generics are as high standard the same standard as any originator. That will take time. Meanwhile preparing for the compulsory licence, in preparing for the clinical trial, we had registered another one. We were already in the process of registering. So we were far ahead. If Gilead wanted to include Malaysia in their voluntary licence, there would be no knowing when it would happen. Whereas Malaysia was now ready to go. So Malaysia did not give into the pressure. We are very happy to know that.

My question is, is it ever enough to have voluntary licence? Very quickly, look at the other countries in our region that were included in the voluntary licence of Gilead and the companies from India. Then look at the market situation. Look at the prices in India.

So first sofosbuvir alone is $US 289 per bottle. Per bottle. You need three bottles for the early stage of treatment. **In** Malaysia our compulsory licence says no more than $US 40 dollars. That is your maximum price. You can go lower. So ours is $US 40, Indonesia $US 220. Vietnam $US 570.

And Cambodia, Cambodia is a least developed country - a very poor country. And they were pricing in Cambodia at $US 280 under voluntary licence generic. $US 280! In Cambodia today, very few people are treated. With the voluntary licence they can't afford it. Vietnam has started treating but now it is so expensive. They are having financial issues so they are slowing down**. I**n Indonesia, very little treatment is going on. So, Malaysia is the most successful country after Egypt.

Today, we have a free treatment program using this drug. You don't have to go to specialist, you don't need to do special genotype testing. We have trained our clinics so all over the country there are quite a number of our hospitals and clinics that can just do it on the spot - testing as well as treatment! Sold that.

So basically, we have different options because we've opened up. Once you deal with the patent barriers you've opened up. We imported generic from Egypt but it had to stop because we were only doing it for three years. Many of us were lobbying the Ministry and I think the Ministry of Health wanted it. We were

saying this is not for profit and this is a Ministry thing. Not all drug companies are bad but not all generic companies are also angels. No, they're all in the end for business.

In the end, it is also about raising awareness within the industry - having more independence domestically to make our own medicines, to do research and to be able to create initiatives like we have Gas–liquid chromatography (GLC), that are not just commercial.
so we need to work on a strategy where we can actually be successful commercially but still be affordable - so we can import the different versions.

We started treatment and today the price has gone down - in December 2021 - the lowest dose combination of the two (ravidasvir/ sofosbuviir) to about 400 Ringgit, (about $US 80). It keeps going down. So we are able to treat and our problem now is not the treatment but finding more patients to come out. We must do more screening and more testing because a lot of people don't know. There are no early symptoms of this very serious diease.

So that's where we are. Now, but this is only one side of the story - I just want to end by saying remember all these evergreen secondary patents? They don't need to be given. Why should you give another 20 years when you take two old pills and put them into one pill, so it's easier for your patient to comply. For putting two or three pills together into one so you take one instead of three - why should you get another 20 years? Is that so inventive? Such a big radical genius idea that you get monopoly? No.

Sometimes by changing from liquid to tablet, or other forms, companies add another 20 years patent. We give too many of those patents in this country. So, we must tighten our patentability criteria as we call it and just don't allow these little changes of formulations. If we control that, or we don't have patents in the first place, there is a lot more freedom for our companies to import or to begin to manufacture.

A generic company may not want to invest because they are not sure about all these patents, too many uncertainties. Sometimes it takes so long, so many old drugs are around that are still not available as generics in this country.

So, we have to go the preventive way - by preventive health. We need to prevent a lot of unnecessary trivial patents and that is a very important part of our campaign. Compulsory licenced government use is legitimately available but when you try to do this, there is a lot of political pressure from outside and even from inside sometimes. So, we have to be really trying to prevent this situation. We all need to know the realities of the TRIPS agreement and intellectual property.

There is a last example I want to show you. There are a lots of examples, cancer drugs is another seminar - because those are really expensive and there are a lot of biological drugs that are very difficult to make. But we have one drug - an old drug for HIV called dolutegravir (DTG). WHO has recommended it as a first line treatment and side effects are very reduced. There are a lot of treatment drugs for HIV now but one of the main ones that we continue to use has a lot of side effects right and a lot of people cannot tolerate it but they have no choice because it does work. We have DTG in our essential medicines list but we cannot afford to use it because it is patented until 2027 I think - one of the secondary patents is still there.

There is a lot of activism again, including from the Ministry of Health - pushing for DTG to be included in an existing voluntary licence. Finally, because a few countries around the world were threatening to use a compulsory licence, the company concerned decided to include Malaysia and three other countries in Eastern Europe into the voluntary licence. Three years ago they included us and this agreement, the voluntary licence, is with the public patent pool system and the company insisted that for these four countries including Malaysia, for this voluntary licence, the royalty rate, the remuneration rate they call it, cannot be disclosed. In the original licence that we were excluded from, there was very low royalty but for this one - that is for including Malaysia - the rate is undisclosed, a secret number but we know it is high and so high that is still too expensive!

Eventually when two companies registered **DTG** here, it was still too expensive so it is not, at the moment, in the MOH first line treatment. It is only used for those who have a lot of resistance, when it is necessary to use second line treatment because a patient has developed resistance. Treatment is lifetime and with the old drugs there are horrible side effects. So DTG then should be the first line drug. In Thailand it is ten times cheaper because there is no patent in Thailand and the Thailand government manufacturing facility is producing DTG.

So we have an ongoing Campaign and *Campaign Hashtag* is going to be launched soon so I'll let you know. Thank you very much.

The importance of the ONE HEALTH approach to national Antimicrobial Policy:

Case study - the Thailand AMR Movement: Niyada Kiatying-Angsulee

Good morning everyone. I am really excited to talk to this topic- not only the threat of the AMR itself but the deep understanding of the integration and interaction between the microbes, the creators and the environment.

Rational use of drugs will not improve everything. There are a lot more issues to consider so I will walk through many of those.

Starting with the politics of global Antimicrobial resistance (AMR) agenda, you will see why we are too slow in tackling this issue. We must consider the importance of AMR to get a deep understanding of the detail. I wil explain why we need an interdisciplinary approach to address the issues and finally I will explain the Thailand situation.

How did the story start?

Alexander Fleming Penicillin, in a Nobel Lecture December 11, 1945, said

'I would like to sound one note of warning ..... there is no need to worry about giving an overdose and poisoning the patient. There may be a danger, though, in underdosage. It is not difficult to make microbes resistant to penicillin in the laboratory by exposing them to concentrations not sufficient to kill them, and the same thing has occasionally happened in the body.'[7]

In fact it started five years after his Nobel lecture, in 1950. You can see from 1950 until now how long it took to start the fight against AMR technically and systematically - more than 70 years. We are still just beginning work on this. I think the world wide Civil Society Organisations (CSOs) and academics started earlier advocacy on this. CSOs started in 1981 to raise the problem of AMR and then ReAct*8* started in Sweden and they have had global offices since 2005. I work very closely with ReAct in advocating AMR policy in Thailand.

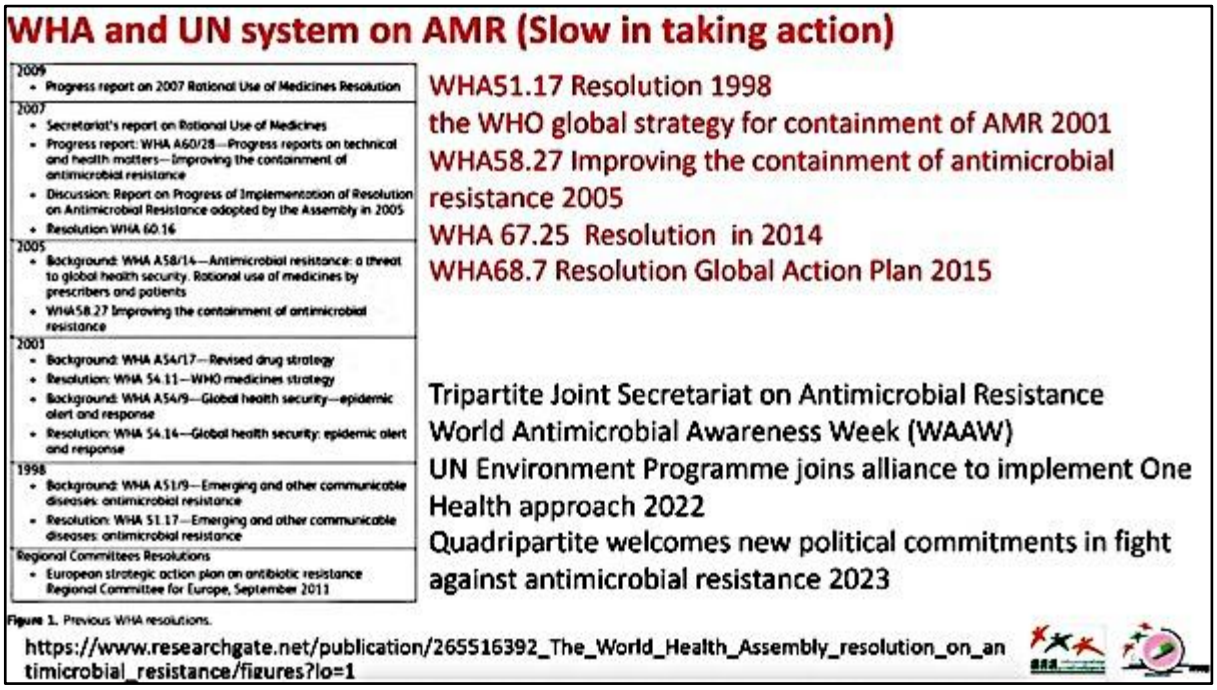
In Europe in 2008 Antibiotic Awareness Day was establshed on 18 November to become an annual day. The World Economic Forum did not start to address AMR until 2013.

There were some British activities started in 1998 but it took until 2009 to address rational use of antimicrobials with a view to containment of antimicrobial resistance. It was only in 2014 that there was one report on the AMR situation that was brought to the attention of the World Health Assembly and in 2015 National Action Plans for controlling AMR were developed at the World Health Assembly.

[7] https://www.futurelearn.com/info/courses/introduction-to-bacterial-genomics/0/steps/45323#:~:text=In%20Fleming's%20Nobel%20acceptance%20speech,danger%2C%20though%2C%20in%20underdosage.

[8] Created in 2005 ReAct is one of the first international independent networks to articulate the complex nature of antibiotic resistance and its drivers. ReAct was initiated with the goal to be a global catalyst, advocating and stimulating for global engagement on antibiotic resistance by collaborating with a broad range of organizations, individuals and stakeholders.

The WHA and the UN system were very slow to respond.



The real One Health approach did not evolve at first because they still needed another UN system. Although there were food and agricultual sectors there was no United Nations Environment program. So when the UN Environment Program was established in 2022, AMR could be tackled with the real One Health approach.

To me, looking at the One Health approach, we are probably starting from human beings. We use humans as a target at the top of the issues instead of being part of the whole environment. So in that case One Health might be addressed from the wrong direction. As pharmacists and medical doctors we are naturally concerned with human health and there are so many issues that are very interesting as well as just public health issues - technical things.

The EU patient groups started to review and report very personal stories concerning humans. Although the human experience is not the only subject of AMR, personal experience is very important. Personal experience is not only *'I'm sick, I got this diseases, I got something from the food',* the real experience includes adjustments and changes to their way of living too.

We have forgotten a lot. Cultural practice of farmers in many many countries have been forgotten, including in Thailand. Farmers had to pay respect to the mother earth before they started growing the rice fields for example. There are similar practices in Latin America. I went to Latin America some 10 years ago and found they have rewound back to the cultural way of paying respect to the mother earth.

AMR is a global issue so instead of just looking at humans we now have to look further. The human microbiome is the collection of all the microorganisms living in association with the human body. A project has been launched to analyse every single DNA pattern in the microbiome and they have found very interesting results. Only one section had the human DNA - the rest were microbes. So our human body cells include many microbes and their pattern changes - they mutate and their behaviour changes.

We are not just looking at the microbes of illnesses, not only looking for antimicrobial resistance there, we need to look inside our bodies as well. There is good research in Japan. They found that if your gut microbes change or destroy each other, that can affect your brain and your mood. The fundamental principle is that you have to be careful about your gut so it's not only about taking antibiotics to make disease disappear, you also must know how to take care of your body by good nutrition and know how to use your body. We have to come back to knowing food is not just food. We need to understand we must include vegetables, proteins, probiotics and extra nutrients.

From a human-centric approach we need to go to a One Health ecocentric approach. The US Centres for Disease Control (CDC) define One Health as:

'a collaborative multi-sectoral and transdisciplinary approach, working at the local, regional, national and global levels, with the goal of achieving optimal health outcomes, recognising the interconnection between people, animals, plants and their shared environment.'

That's a technical definition and I think we also need deeper understanding of One Health itself, not only of the 'medical' environment but also the cultural environment - the history of our behaviour, how people change the environment and how the environment can have an impact on our gut microbes too. The humans, animal and plants are all linked with the environment. We have found more and more that antimicrobial resistance has appeared in the sea and in the water in rivers; and returning back to have an impact on the insecurity of the food production system as well.

Many people talking of antimicrobial resistance will say it is caused by irrational drug use. it can be seen that although there is overlap between irrational drug use and AMR there are also other special issues - you need to look at the evolution of the infectious organism, the microbiology and the behavior of people too. And while we are talking about antimicrobial resistance, people may think only about bacteria. But there are also the fungi and viruses and they also mutate.

In Thailand I can see that in the cow, the ox, the pig, the chicken, the fish, the prawn, in all animals they use antibiotics. Antibiotics are used for growth promotion and for disease prevention. In certain areas already, some farmers try to go back to the organic approach but it's not easy because we get used to a big system of food production. How can we manage those big industies in an efficient and good quality way?

Antibiotics are even used in agriculture. I know that at least some orange orchards in Malaysia and in Thailand too they use antibiotics. There are very famous new oranges in the north of Thailand and every time we pass there we have to stop and buy some. Now we have advice that new varieties of oranges are treated. Recently we have been told that 99% of them have a liquid injected into the trunk of the orange tree. That affects not only the tree but also the environment and the water around it - and the water drains down to the river. The pomelo orange specifically, is reported to be affected. Pomelos are very popular. So we need to be careful.

Vegetables are another problem. Recently one of my students working in the field discovered they use antimicrobials in the rice fields - antifungal and antibiotics. So everywhere is invaded. The flowers feed the honey bees and antibiotic has been found in honey too. Farm waste and industry waste is affected and mutant natural microbes are found in waste too.

The last but not least issue is the link bewteen AMR and poverty. The Sustainable Development Goals Tripartite Report states that AMR could push 28.3 million people into extreme poverty by 2050 due to high costs of treatment and chronic infections.

At least seven sectors contribute to development and distribution of AMR in the environment. We have found resistant bacteria and mutation in the environment already so much more research is needed and that is why we have to include all in the One Health approach.

Earth, water and air are all affected - as far as remote areas in the jungle. The complications and the integration of the factors in antimicrobial resistance in Southeast Asia are very interesting and need complex interventions to address complex issues.

We cannot attack antimicrobial resistance purely in a technical way. We must also work on integration of the social elements themselves one one side and the technical on the other. These two together combine the One Health with the social and political framework to deliver the action through a social ecological framework.

Some people have tried to re-imagine antimicrobial resistance into a way people can appreciate it through the arts and the beauty of those antimicrobials themselves. The call it microbiana or metaphor. It is thought of as a way to show more deeply how antimicrobial resistance can be expressed in arts and in culture. We see how people behave and how we emerge using a different sort of One Health approach instead of technical one only.

In Southeast Asia now they use the network of surveillance and the Jaipur Declaration on antimicrobial resistance and the information from the database to create the way of driver of AMR. That impacts on economics. They use the poor awareness. Not only the lay person, most of the blame is on the poor lay persons - because they are ignorant they don't understand, are not aware - they are blamed. At the same time the awareness of the health professional is a very important too. The tool for mitigation is not only the law creation, the education, the policy, the research, and the surveillance and the hygiene of the people.

In my work I go bit by bit to the stake-holders in a variety of CSO offices, academia and the media. But there are some sectors of civil society that we may not research in Thailand - to do with our king and with civil

society. How can people do what is needed there? I collect a lot of those issues because they are very important in One Health, not only for technical attack but using civil society.

Now I move to Thailand where like Malaysia and many other countries we now have a National Antimicrobial Resistance Strategy and National Action Plan. A Global Action Plan formed in 2015 was a guide for every country to start their own strategies and plans.

In Thailand we had some infrastructure already. A surveillance system was already in place and some national use information had been gathered. Unfortunately the initiatives were in the hands of a separate organisation and although they did their own good work, they didn't communicate with other organisatons working in different areas. We did not have one single organisation to coordinate activities on AMR. We now have a national Antibiotics Smart Use (ASU) Project that started systematically with use of antibiotics locally and then came up with the national consultative meeting involving all stakeholders and run by the government in 2015. We called it that National Health Assembly. It operates like the World Health Assemby but making national resolutions. The local partners are responsible for designing the strategies, to be implemented in their units, while the central partners play catalytic and supportive roles and facilitate collaboration between local partners.

> The Antibiotics Smart Use (ASU) program was introduced in Thailand as a model to promote the rational use of medicines, starting with antibiotics. The program's first phase consisted of assessing interventions intended to change prescribing practices; the second phase examined the feasibility of program scale-up.
>
> Currently the program is in its third phase, which centres on sustainability. To change antibiotic prescription practices, multifaceted interventions at the individual and organisational levels were implemented including provision of guidelines for appropriate prescribing and treatment with antibiotics when needed.
>
> To maintain behaviour change and scale up the program, interventions at the network and policy levels were used. The National Health Security Office has adopted ASU as a pay-for-performance criterion, a major achievement that has led to the program's expansion nationwide. Despite limited resources, program scale-up and sustainability have been facilitated by the promotion of local ownership and mutual recognition, which have generated pride and commitment.
>
> ASU is clearly a workable entry point for efforts to rationalise the use of medicines in Thailand. Its long-term sustainability will require continued local commitment and political support, effective auditing and integration of ASU into routine systems with appropriate financial incentives.[9]

The adoption of ASU practice as a pay-for-performance criterion by the National Health Security Office, a major purchaser of health care for Thailand, was an important achievement that prompted nationwide expansion of ASU. Apart from hospitals, ASU has also been implemented in pharmacies and communities. The project has now moved into the third phase, focusing on sustainability. The implementation of the 2011 National Drug Policy (strategies on combating AMR and promoting rational use of medicines) together with civil society movements, such as adoption of Antibiotic Awareness Day as a public campaign in Thailand, has strengthened the AMR movement, a supportive climate for sustaining ASU practice.

At national level there is a policy agenda. Civil society and academia can propose policy through this channel. Our team and the other teams proposed resolutions to this body in 2015. Now we have an integrated policy. So that was the beginning with the public agenda informing the policy. This platform supported the bottom up process of proposing policy. Resolutions go to the government as well to the cabinet and if the government accepts them they are pursued through this channel.

We first proposed the structure with the national consultative meeting in 2016, and the government pronounced the National Strategy on AMR from 2016 until 2021. Now we have passed that date and extended the plans. This achievement is the first time we have implemented such a policy in Thailand and we have learnt a lot.

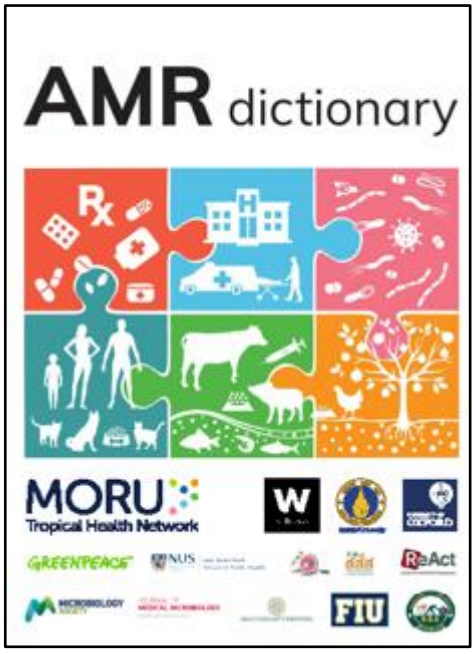
I will explain how complex the process was. We started to negotiate and to advocate and to raise public awareness, not only the general public but also within special groups and now we are in the process of drafting

9 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3524958/pdf/BLT.12.105445.pdf

the second National Action Plan to start this year and it will last for five years. The draft is already there and we send it to the cabinet for approval very soon.

It is the role of academics to assist in our movement and the academic groups are really strong in Thailand. I will explain the complexity of the policy process and how we deal with some problem issues. It was important that we had started some work on antibiotic problems already in the Antibiotic Smart Use (ASU) program that began in 2007. That was one major challenging way of working on this issue. Then we have our program at the Drug System Monitoring and Development Centre (DMDC). With that organisation we started looking at the whole situation and the infrastucture problems in the hospital and the community settings so we could support them.

The ASU program began in one province, expanded to five provinces and now we have 15 provinces around the country. And from those we are linked to many projects that were part of the national action plan to 2017. A lot of international academic and some national colleagues joined us with the aim of collaboration with the London School of Hygiene and Tropical Medicine and Mahidol University. Our Ministry of Public Health ran some seminars on our One Health Order as we call it. Other project work is conducted with international academic university help.



AMR dialogue is another project and small booklets called AMR dictionaries support this dialogue. The booklet is also avalable online.*10* Our University is a Research University so our team within the University works on AMR together with community level leaders and sections of the police.

The Thailand One Health Dashboard on Antimicrobial Resistance[11] provides data on monitoring and evaluation of AMR policies and activities.

There is to be a national survey of the knowledge of lay persons in the country and the work on that concept is to be my responsibility. Second, there is an action oriented study - aimed at work in a real action oriented world. *12*

Second **i**t should be linked together with all the different stakeholders to work together as a multi sectoral and multi layered activity.

And the third task is to stimulate the political commitment. That is very important. It is needed everywhere and the goals are very challenging. After that first national strategic plan- to 2021 - we reduced our aim on morbidity from 50% reduction. We had aimed very high. We pushed the government to 22.20% reduction in antimicrobial consumption in humans. I have heard that there is some quite good reduction but I don't remember the number. And we pushed for 30% reduction in antimicrobial consumption in animals. There was quite a good result there too. Unfortunately, for the fourth one - 20% increase in public knowledge on AMR and awareness of appropriate use of antimicrobials - I would say we got maybe a little bit of improvement. We still have to do a lot. You will see that every national plan will target this issue and it needs long term work to increase knowledge and awareness in the whole population in the country.

In our next strategy we have a primary focus on the surveillance system and secondly on antimicrobial distribution. The third one, infection control in hospitals and the forth one on agriculture and animals. Five is public knowledge and six is the governance mechanism system.

In this case we have success in reaching the international quality assurance level for implementation of the plan but we could not set up the single network required to govern the whole. Nithima Sumpradit, the team leader is a pharmacist and also PhD at the Thai FDA. She is the one who is the real leader for this AMR movement in Thailand. We work well together so the underlying concept of the process of the government in a One Health approach is a triangle that moves the mountain - a theory proposed by a renowned professor in medicine - is what we are trying to achieve. The missing triangle corner is the political commitment.

[10] https://figshare.com/articles/figure/AMR_dictionary_Thai_version_1_1_published_July_2020_/14132576/1
[11] Thailand One Health Dashboard on Antimicrobial Resistance
12 https://www.thaiamrwatch.net/

Sector one is the technical and academic commitment and the second sector is the public and lay person's commitment. There should be a good policy to guide the day to day implementation of a good system supported by government with mobilistion of resources needed for the intervention.

In thailand we don't have a lump sum for the budget but we have a separate sum for each government sector but at the same time we get support from WHO. We also get some investment from independent bodies like Thai Health.

The Thai Health Foundation is an independent fund set up by law that deducts tax from alcohol and tobacco to set up this fund for health promotion - not curative but health promotion so that work closely with stake-holder, with academis, with government, to look at the health promotion aspects of the people's health, the system, the understanding, their power engagement.

The Thai Health Foundation role is to empower, so they have lots of activities around the country. A conference will be held in November this year on the health promotion through their activities. The government has the networking international funding allocation for collective creation of evidence and data set in an electronic system and they came out with a very good report from the government and the academics that are involved in the project.

The landscape of understanding of the AMR system in Thailand is underpinned by the National Plan and informed by the report from the national survey on awareness that provides supportive technical evidence for the implementation of the work we are doing.

But we have to elevate AMR to a high level of visibility and that is why we have to target politicians at the high level of government - the cabinets. And we have to secure funding from independent sources - somewhere outside - not only Thailand - through some international work.

We have two or three independent funding sources but we need to find some 'champions'. We use champions - not only one champion. it is impossible to have only one so we have groups of champions in different areas that we join together into a network of stakeholders' champion**s** from health profession champions' from CSO champions' from academic champions and even from industry**,** if they would like to join us. So we have the network and we meet together from time to time.

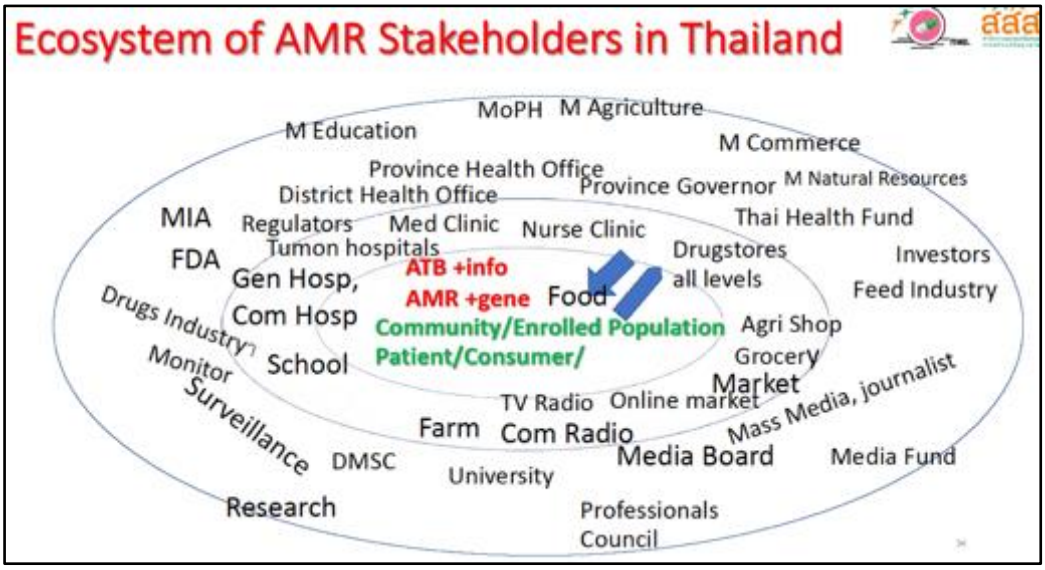
We have the National AMR **F**orum every 2 years. The report of academic work is presented at the forum togther with the work of the CSOs. The was one forum just last year. There are two days of very good discussion and very good research has been presented. Results are documented and some more agenda items identified for the next meeting. Ambitious high goals are targeted and we try to achieve those.

For the number five strategy instead of AMR awareness**,** now we tend to AMR literacy which is a little bit higher and more important and we see that as more important than just only awareness and knowledge.

I would like to talk about this Smart Use program work on AMS as a model for rational use. We have three faces of a bottom up approach including guidelines for rational prescribing. It is a multi level interwoven structure with a central collar to secure sustainability and provide policy support.

We try to institutionalise organisation and leadership in the hospitals support the initiatives they create. There are many areas where leadership is needed to deal with AMR issues. Staff involvement in the hospital at the very beginning is needed to work together in partnership with reference groups and community. Community participation is very important in the antibotic smart use of medicines.

We propose three key conditions where antibiotics should not be used: cough and colds of upper respiratory tract infections, common acute diarrhea, and clean wounds. Research has shown that success with this concept of three conditions can expand to almost all hospitals and it is included in the policy now.



The green text at the middle of the graphic refers to one single province and then we expand to the second phase in the next ring. Finally in the outer ring the national health and security office will oversee all health security for Thai citizens apart from the government staff and the private staff. They accept that policy.*13*

Some international published papers say it is all government of Thailand work. No. In Thailand. the Community is at the middle. We started at the bottom and then we worked up. The second circle is probably across the communiites. Outside is the Minister of Public Health, with the Minister of Education in the central area. So if we know all the stakeholders, how they support, or how they against, we know how we are supposed work together. So then we support them, and we can work together with collaboration. We can work together with HAIAP, Third World Network, South Centre, Oxfam**,** ReAct. All the very important global momentum can help by collaboration, communication, sharing experience, for empowering people and engagement, improving knowledge, attitude, awareness. And the literacy of stakeholder**s** is very important.

Solutions approaches to supporting NAPs within and across LMICs

SEA AMR network

(i) The need for collaborative surveillance networks

(ii) The need for rapid diagnostics to improve antimicrobial prescribing

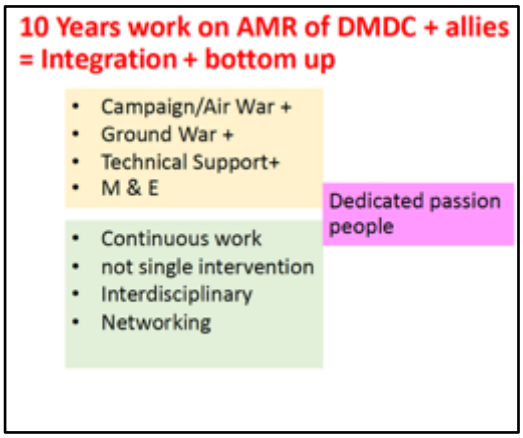
(iii) The need for better awareness, education and stewardship

(iv) The need for social research

My observation

- Political commitment
- Global momentum
- Collaboration, Communication and experience sharing
- People empowered and engagement
- Knowledge & attitude, awareness of stakeholders
- Knowledge production and management on interventions

[13] See also https://www.youtube.com/watch?v=cvfI3DKgkJ0 (English subtitles are available)



Now back again to how my organization (the DMDC) works with the NGOs and Civil Society. Our organisation has 10 years work on AMR - before we came up with the nasional policy. Passionate people are very important. How can we share our passion with the young people, with the young pharmacists, young doctors - to understand and then continue the work as no single intervention? It seems impossible. We need complex interventions, interdisciplinary networking and ground work. And some people say air war. Some say our campaign for air war all the time is not possible. Our air war should combine with ground war, technical support and monitoring and evaluation.

We have achieved a lot of integration between information from government and non government sources - Thai Health support, community monitoring - and combined it with all the work that we have done for 10 years. Knowledge production and management of interventions are very important. Thank you very much.

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HAIAP website https://www.haiasiapacific.org/

Country Experiences

Pakistan's challenges and HANDS development initiatives: **Sheikh Tanveer Ahmed**: Chief Executive Officer HANDS (Health and Nutrition Development Society), Pakistan.

Today I am going to share with you some of Pakistan's challenges, and developments of initiatives to address these challenges through the organisation I have been leading for this last 43 years.

Key core indicators in Pakistan are in maternal and child health. In Pakistan one mother dies every 20 minutes - a very high maternal mortality rate; and 44% of children are stunted. There are 44 million children born every year leading to a population growth rate of 2.1. So 44% of under five children are stunted and grow to adults with low physical productivity.

There are 55 million people still living below the poverty line and we are currently facing economical destabilisation. The IMF has a role in promoting the Chinese model of Belt and Road. This process is also playing a role in the political instability and the increasing inflation and economic instability. Poverty is increasing. The final figures of this economical crisis in the country will be available in the next few months.

If you talk about education and illiteracy, there are 22. 6 million children out of school so one can imagine the high illiteracy rate and the numbers of poorly literate or illiterate. There is pool of 90 million adults who really are in the labouring class in all fields whether related to health, education, live food infrastructure, or water and sanitation. Wherever these poor people are serving it is as support and labour work. As they are poorly literate, the productivity is highly questionable so this is one of the challenges for the growth of the country.

Another very important challenge is 21 million people still without clean water and 79 million people without toilet feasibly. So open defaecation is the practice in many of the rural, remote and urban settings. These health and hygiene issues lead to water born diseases. Diarrheal diseases are very common. Access to enough safe water is still, for most of the population, unchanging.

Nine million families still do not have appropriate shelter. Appropriate shelter definition in the country is a roof which can provide protection from sun and the rain. We are an extreme disaster prone country - facing disastrous floods every few years as well as earthquakes.

So all these challenges led to the founding of the organisation in 1970 - 43 years ago. I was one of the founders. We started dreaming of resolving the issues in partnership with other stakeholders in the country and the community. We tried to advocate and bring the issues to the attention of the government - in different aspects and in different sectors. We were able to successfully help to draft legislation that would pass through the both federal and provincial assemblies. Pakistan jurisdiction is devolved into four provinces in terms of most of these rights and areas of challenges.

Federal government is supposed to share the resources and revenue with the provincial government but both of these governments still have revenue collection challenges so most of our country's problems still exist even after 75 years of independence of the country.

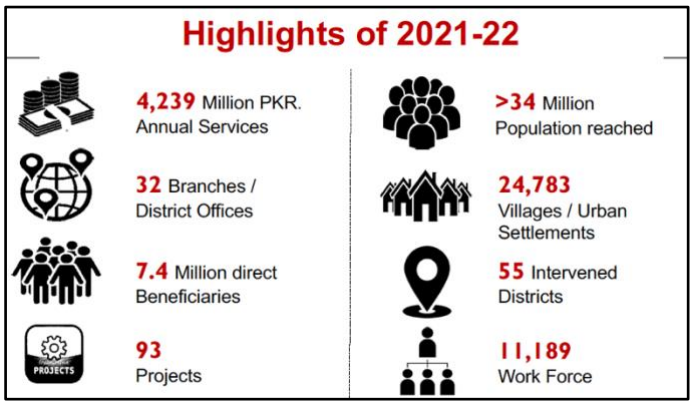
We started this organisation in 1970 with the vision of quality of life for all in an equitable human, peaceful and sustainable world. We developed six major areas for our intervention services: health, livelihood, education, water and sanitation, infrastructure and disaster response. All these six departments are based in the HANDS head office which is in Karachi.

We have built small community health units based on the GK (Gonoshasthaya Kendra) model here as well. In a multi sectoral way, like our colleagues in Bangladesh, we are trying to support the stakeholders of the country in these six areas.

In these specialised areas, we have developed expertise in these last years and all of these six areas are supported by the peripheral support departments.

All these departments are based in our headquarter in Karachi and then administered through our district administrative structure. In Pakistan the district administrative unit is a very important administrative unit where district government also exists. There is always political instability connected with the local government so we also advocate free and fair elections at the district level as well as at the federal government level. At the same time as striving for free and fair elections, and a good democratic system, we are also providing the services.

Only last year we developed 93 projects mostly in the health education, building infrastructure, water sanitation, disaster management areas and reached nearly 34 million people with a working force more than 11,000 thousand and millions of volunteers. Most interventions were through the district branches in Sindh and Punjab and some districts in Balochistan and Khyber Pakhtunkhwa (KP).



The health services were facility based services where we try to develop the models of strengthened health system management by making a public private partnership through the different Pakistan health department of Sindh and Punjab and KP governments. We have managed to do the partnering with 45 facilities and benefited 71 individual locations with free of cost treatment from 627 health care providers.

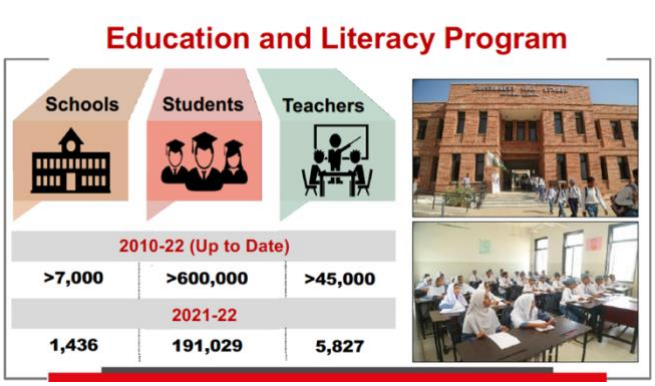
We have our own branded community health worker model which involves a community health worker providing services in the public sector to 60% of the population of the country - but 40% is still without a community health worker. The Lady Health Worker public sector program does not reach 40% of the remaining under developed population because there is no middle class or metropolitan literate girl available to work as a Lady Health Worker and engage with the community. So we developed another level of community health worker which we call the *Marvi* rural worker in different provinces. There are 3, 180 *Marvi* workers. They have their own centres that include a small grocery shop and they provide the link to the health services.

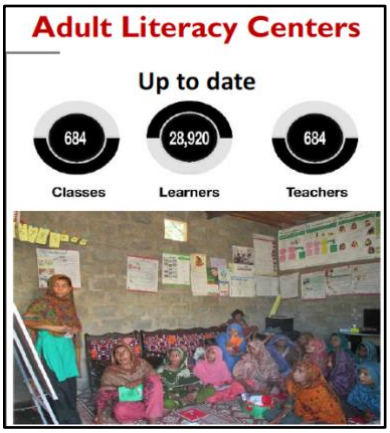
A *Marvi* worker is a well trained girl - trained by HANDS and supported and supervised by a Lady Health Worker who has a higher qualification. There are 1.6 million beneficiaries every year through 3000 health services.

Our purpose is to develop the management model and strengthen the system of these public sector facilities and then after five years to hand them back to the government. So almost every five years we have taken some facilities from the government and when they are working well they are handed back to the government. When facilities are not functioning well or are under developed - often in remote areas - the government is supposed to grant the budget so HANDS can utilise the funds appropriately to strengthen the system using its own auditing system and a very strong financial marketing system to transplant a functioning comprehensive facility based model including

outpatient, family planning, minor surgery, radiology and lab services. There are 4.1 million beneficiaries of lab services alone.

There is a population explosion in Pakistan - we are now at 2,230 million population, a huge population - and one of the top five countries of the world. We try to regulate and manage the population by strengthening the population welfare department by collaborating to help the department with team support through our model workers programs. Lady Health Workers are an important part of the program. By intervention through the family planning program we have been able to prevent maternal mortalities, unwanted abortions, unwanted pregnancies and unsafe birth; and reduce the level of disability adjusted life years.





The use of contraceptive treatments is nearly 30%. We have by now trained 545 community midwives in a two year training course. Graduates receive a licence from the Pakistan Nursing Council. After getting this license based on two years hospital based resident training, graduates can work for antenatal, natal and post natal services. So all these trained women go back to their 545 villages and perform the services under staff supervision. They work for the reduction of maternal and infant mortality.

Modern technology is being introduced in the health sector as well. Telemedicine by the name of *Aasan Seha*t is being used to provide quality services to Google remote and where the Lady Health Workers have appropriate experience. In four places they are working to help our community midwives or our community health workers not only in diagnosis, but also in explaining the different services such as health

nutrition, family planning, etc., and helping the staff to make use of these devices in remote parts of the country.

In the last year, the education and literacy service was working in 436 public and private schools and benefited nearly 600,000 students while training nearly 6000 teachers. Adult literacy is also included. The early childhood development model is also one of the models operating to reduce the drop out rate and increase the literacy rate.

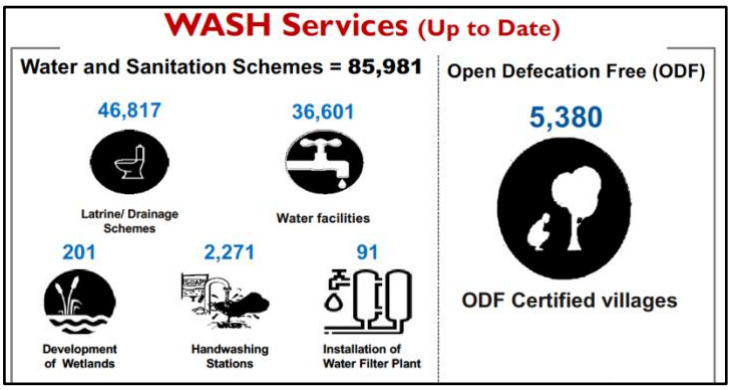
To address poverty, there are a range of approaches. Distribution of agriculture, kitchen gardening and livestock support enhances production and self sufficiency in these areas.

For small enterprises such as grocery shops or other small businesses, interest free loans are provided. Loans are also provided through the small farmers. Our focus is women - at least 50% of beneficiaries are women.

Similarly water, sanitation and hygiene services are crucial. We are trying to reach 25, 000 model communities. The approach is similar in each so that a model community can evolve and the health and education infrastructure and water indicators can be improved. We should be able to achieve sustainable growth well before 2030. We have provided 46, 000 sanitation schemes and 36, 000 water schemes. There is another wetland model.

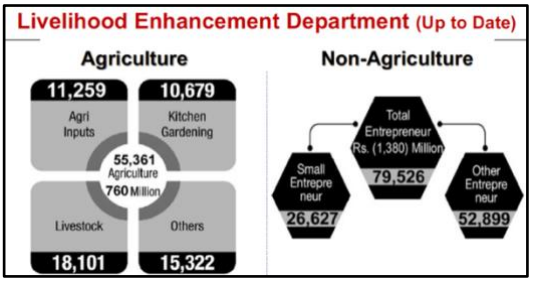
We provide safe water for hand washing and work towards open-defaecation-free village certification. that is a process to certify each village and turn it into a very hygienic place to live. This process is endorsed by the district government and the UN agencies.

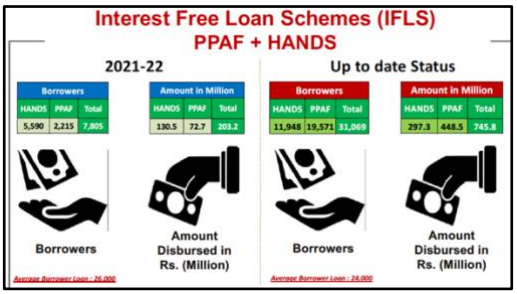
Our Reverse Osmosis (RO) scheme is a water filtration plant where there is underground water to provide excess safe water. We work on the RO plant in ten districts benefiting about 10,000 population who consume about 14.3 million litres of water every year.

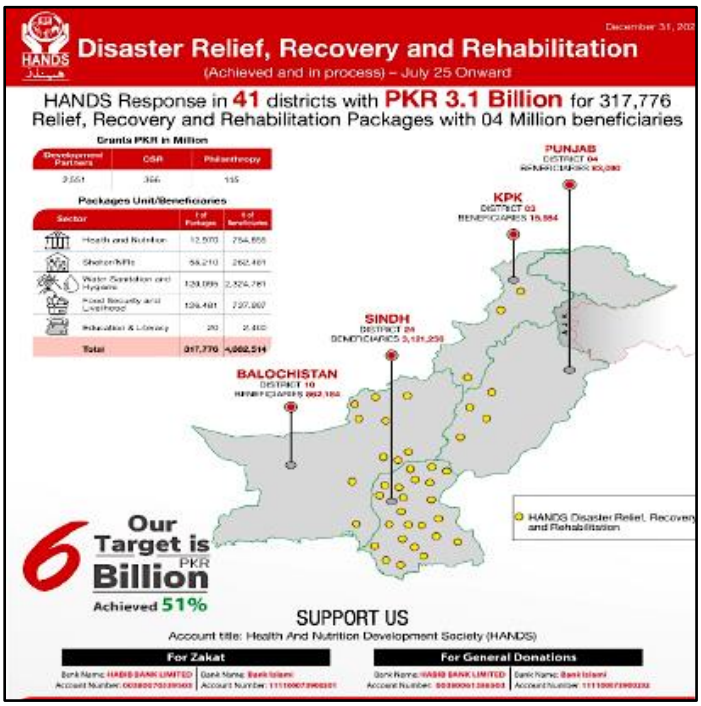


Infrastructure and alternative energy are very important goals for sustainable development in these areas. Nine million families are estimated to have appropriate houses now. We have provided more than 80,000 one room houses by now and this year we are working towards 150,000 thousand houses.

Following disasters we have enhanced our work in new areas.



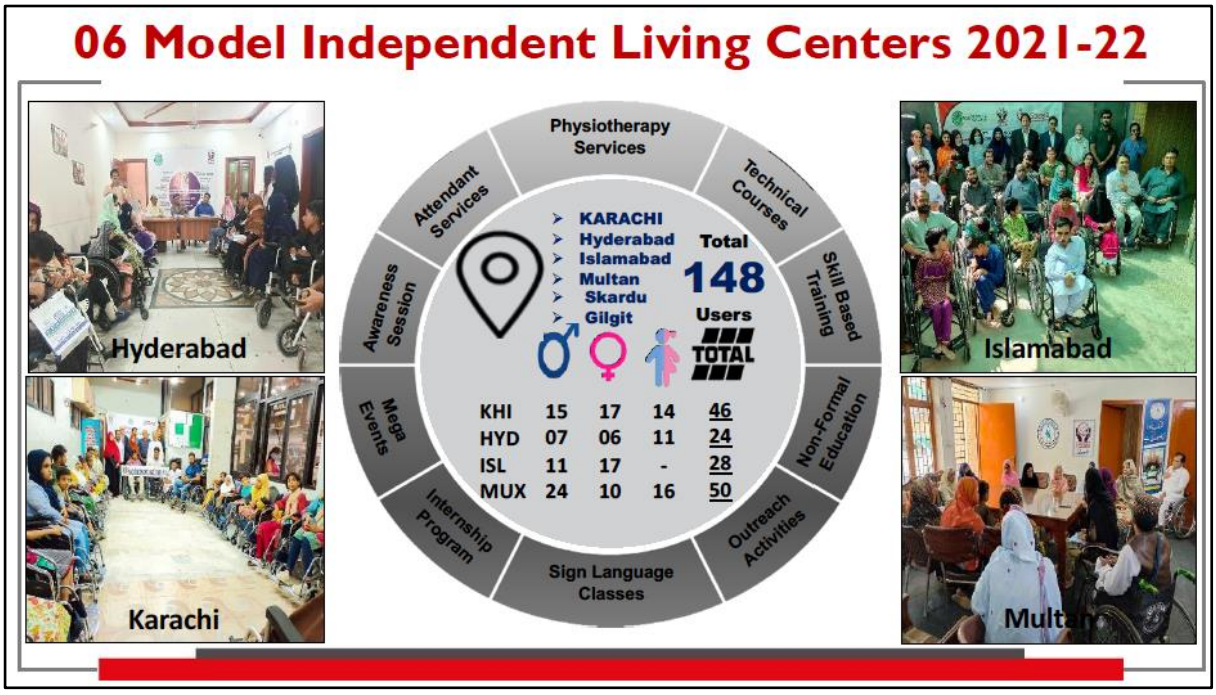




Solar energy especially, is being incorporated into community infrastructure by making our facilities - our office and our health and education facilities - reliant on solar energy. We are aiming for whole community villages to be transformed to solar energy. In this way we are saving lot of carbon emissions - one solution for the environmental protection and inclusive development.

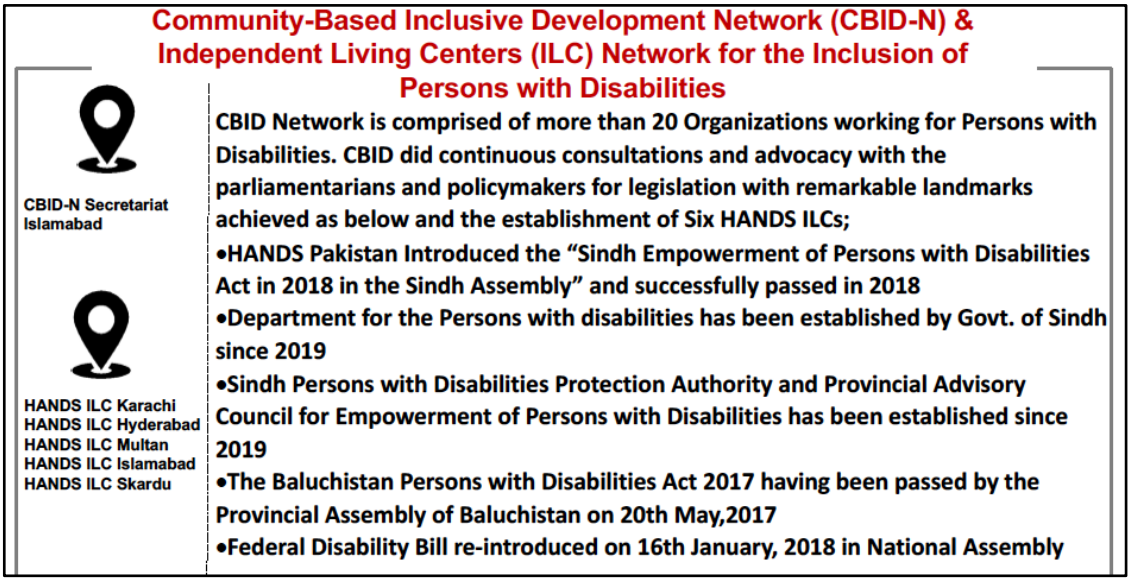
There have been many major disasters affecting the marginalised population, and other population as well. There have been significant interventions after 39 major disasters in Pakistan in recent years. In 2022 flooding caused a huge disaster in 41 districts so we intervened with 3. 1 billion rupees to benefit 4 million beneficiaries, just 51% of our target. Now we are in the rehabilitation stage after the early response and recovery. Many philanthropist donors supported us in this regard. All of this work is done with the help of the people's groups, community groups and community organisations who work voluntarily with us making communities reachable and assuring the approval of the marginalised population. They help us a lot in sustaining the work.

We also work with persons with disabilities (PWDs) with six model independent living centres established across Pakistan. We are sharing the model with the provincial and district governments so that each and every district can replicate it.



The purpose of these centres is for a professional person with a disability to hire more PWDs into the organisations from among those who have been at home and not leaving their houses. The professional PWDs are the ones who bring these others in. Support with transport is provided together with covering the financial cost. These professionals mobilise, motivate and train the others within the centres - to enhance their skills through rehabilitation in physical and mental health. They then provide them with the assistance needed to apply for jobs in different organisations.

We also host a community based inclusive development network which is again a network of persons with disability organisations and this network is legalising many of the elements because five years back there was no legal base for providing protection. We became partners with the community based initiatives to mobilise the different government entities concerning the program. Then it goes to the government where laws are developed as shown in the box.



We are now auditing the infrastructure of different companies and different departments so that these can be pursued to ensure development of accessibility rights of all persons including those with disability. We are also in process of development a degree awarding institute with the higher education commission and with the Charter of Assemblies. When the charter is approved the new proposal will be launched with the university having three departments in the beginning followed by a four year Bachelor Degree in business administration focussing on non profit business and non profit management. Bachelor of Science Degrees in Development will focus on social sciences and include a degree in nursing as a requirement for nursing work in this country. Paramedic training will follow and we'll definitely learn from the other organisations and regional countries. We will need the support of the federal and provincial public sector departments. There are also several individual philanthropic and corporate social responsibility organisations also supporting us. Please don't hesitate to get if touch of you have any questions. Thank you very much.

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Session Chair: Thank you Dr Tanveer. We know the name of your group now - HANDS - and that resonates with all the work going on. Your hands are full! We wish all the best for your strategic planning for 2030, which includes the independent living centres, interest free micro finance and everything that contributes to attainment of the sustainable developmental goals.

Sri Lanka: Professor Manuj Weerasinghe

Thank you very much to HAIAP and the USM for giving me this opportunity. This is my second visit to Penang after 2011. I am coming from Sri Lanka which has been held in high regard for most of the last three or four decades for its health system. It has been a very sustainable system- providing care at no cost at the point of delivery for last 80 years at government hospitals.

We have over 1,200 health facilities where you can get your care free of charge for services - either inpatient or out patient. We have had a preventive health system where the country is divided into 354 units, providing care free of charge across the country for preventive and promotive health services.

This architecture and the model system in the case of Sri Lanka was put in place almost a century ago and has been basically funded by the general revenue or taxes.

I am not saying that it was 100% successful but our general health indicators for the last 30, 40 years have been comapatevly better than most developing countries.

Here aaai am sharing our country experiences, paticularly the current situation.

If you were looking at the last two years of time, and if you were vigilant, you would have seen the downfall of our health system. We saw what was coming - Sri Lankan health services heading for total breakdown. What had been a sustainable system based on general tax, running fairly smoothly, began to show serious issues within last few years. This situation attacted international headlines because all of South Asia and many other countries had been looking at the Sri Lankan model as an example. It was clear there was something going seriously wrong. We needed to attend to it.

We have been seeing serious medicine shortages in the hospitals, and more impending shortages of medicines and equipment, but the politicians and high authorities denied again and again. In addition, medicines were not even in private sector, so patients could not buy them.

We had been dispensing medicines free for almost eighty years but now we can't have essensial surgical procedures because anaesthetic items are not readily available. We can't even get basic items to the hospitals and there is a serious issue of corruption.

The corruption was coming into the system. We saw it beyond registration of medicines. Unregistered drugs in the country without due procedures were imported under political interference. Many of those had quality faliures and had to be withdrwan. Millions of dollars worth of drugs have to be withdrawn because they do not confirm to standards. There was reports on an eye drops which finally ended up blinding 10 people in a government hospital after cataract surgery.

Although we knew there is an impending crisis, professionals warned against it, but but nothing was taken by the authorities.

Worsening economic crisis in Sri Lanka: impacts on health

Just as the COVID-19 pandemic is receding in Sri Lanka, we are battling a fresh challenge: a health catastrophe stemming from economic and political crises.

Threats to health from an economic crisis are multifold.[1] Stress and lack of health care can increase cardiovascular morbidities. Malnutrition can affect generations of children. Communicable diseases can increase due to rising costs

social networks and professional organisations overseas to obtain financial donations and drugs, consumables, and equipment must be taken.

Second, cost-effectiveness of interventions will have to be a priority concern. A series of steps are proposed, as follows: more reliance on clinical judgment during clinical practice rather than laboratory investigations, development of appropriate cost-effective protocols for management, and prescribing of generic medicines that are cheaper.[4]

Third, establishing a stronger social

3 Rannan-Eliya RP. Sri Lanka's health miracle. Sept 11, 2006. https://www.ihp.lk/publications/docs/SAJ.pdf (accessed April 14, 2022).

4 WHO Europe. Health systems financing. Impact of the financial crisis on health and health systems. https://www.euro.who.int/en/health-topics/Health-systems/health-systems-financing/activities/impact-of-the-financial-crisis-on-health-and-health-systems (accessed April 12, 2022).

5 Jayasinghe S. Illness and social protection: an agenda for action in Sri Lanka. *Sri Lanka J Soc Sci* 2010; **33–34**: 25–29.

Published Online May 12, 2022 https://doi.org/10.1016/S2214-109X(22)00234-0

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News

SundayTimes

Immediate withdrawal of contaminated eye-drop: MSD sends out circular

View(s): 157

By Kumudini Hettiarachchi

A batch of a common eye-drop, confirmed as being contaminated by a bacterium, has been withdrawn but many queried as to what would happen to the patients whose vision has been impaired.

The eye-drop is Prednisolone Acetate Ophthalmic Suspension USP IO-PRED-S, a common steroid and anti-inflammatory medication used after eye surgery in the state health sector. The contaminated stock was from a manufacturer based in Gujarat, India. Earlier, after adverse reactions were reported in patients, the Health Ministry temporarily halted the use of this eye-drop.

With the analytical report finding that "the sample does not conform to USP Specifications for Sterility test", the National Medicines Quality Assurance Laboratory (NMQAL) has recommended that Batch No. N22L16 with the manufacture date of December 2022 and expiry date of November 2024 be 'withdrawn'.

Circular No. MSD/Q/P/2023/25 issued by the Health Ministry's Medical Supplies Division (MSD), which is in the possession of *the Sunday Times*, instructs that the batch be withdrawn from use immediately.

The circular signed by MSD Director Dr. H.M.K. Wickramanayake has been sent to numerous hospitals, all provincial and regional directors of health and other health institutions and campaigns.

The Sunday Times as far back as April 23, reported the contamination of the eye drops by the bacterium *Burkholderia cepacia* and how patients at the premier National Eye Hospital, Colombo, had been affected by its use.

Other News Articles

- Tight security in Colombo amid reports of troubles
- 430 state institutions to be sold or restructured
- CEB reforms: Colossal debt to be transferred to new treasury-held entity
- IRD encourages transactions through banks or cards
- AG challenges X-Press Pearl lawyer's court appearanc
- CBSL to get wide powers to ensure stability of licensed banks
- 'Take advantage of this opportunity and make a change'
- UN Sp. Raps. express concern over ATA and Rehab Bi
- Rains to ease despite cyclonic condition in Bay of Bengal

The impending crisis was reported even in academic publications, not only on mass media, for example *The Lancet,* the BMJ.

Editorial

Sri Lanka - Health in the middle of a crisis

The Lancet Regional Health — Southeast Asia

Sri Lanka—once a role model for health and development—is currently in an economic crisis. Attempts at swift development by borrowing enormous amounts of money at high interest rates, banning the import of chemical pesticides to curb outflow of foreign currency, tax cuts, and the effects of the COVID-19 pandemic and the Russia–Ukraine war on tourism have catapulted Sri Lanka into an economic downfall. The economic mismanagement and its consequences are unforgiveable because it has forced millions of people into poverty.

Most importantly, the economic crisis has put national health care in jeopardy. Physicians and health

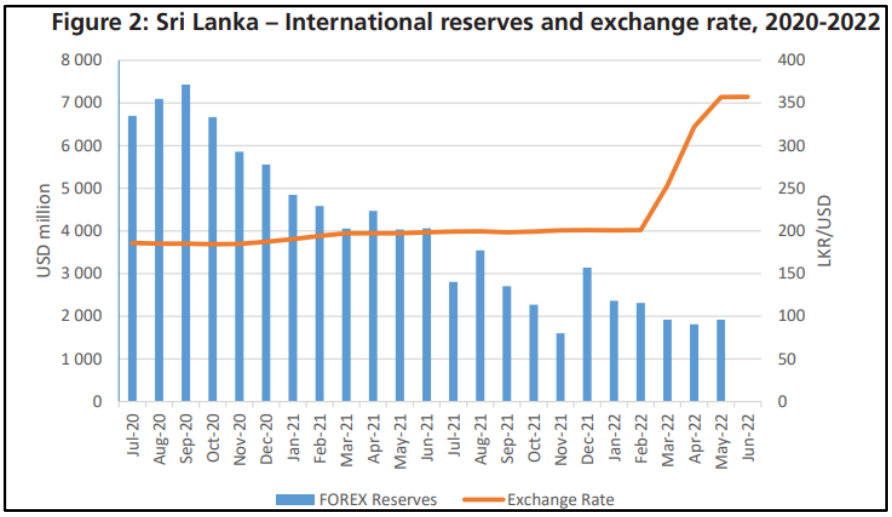
increase of tuberculosis cases. If Sri Lanka does not receive help, there is a high chance of such a surge occurring. Availability of clean and potable water is also bound to be an issue. Wastewater treatment would effectively prevent an outbreak of water-communicable diseases, such as cholera. The authorities need to ensure water availability and wastewater facilities to all people without discrimination by religion, region of residence, or political ideology to prevent similar events that occurred in Zimbabwe during the economic crisis in 2009. The COVID-19 pandemic had already led to underreporting of dengue cases in Sri Lanka, and with

The Lancet Regional Health - Southeast Asia 2022;4: 100067
https://doi.org/10.1016/j.lansea.2022.100067

We need to rectify the identified issues if we are going to sustain this system - which has been a model system for many other countries.

we saw this problemsince a few years back- from about 2015/16 still no attention was paid.

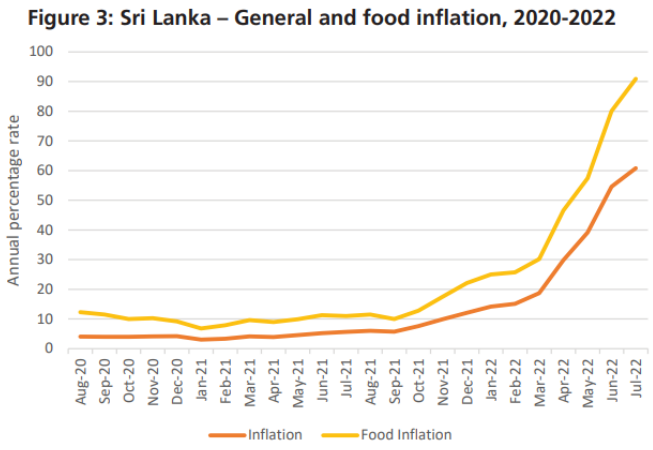
Look at the Sri Lankan official figures on foreign reserves , for last one and half years. There are no published official figures after last July. If you look at the actual exchange rates and forex reserves by September 2202, these blue columns became zero. We did not have a single dollar in our treasury.

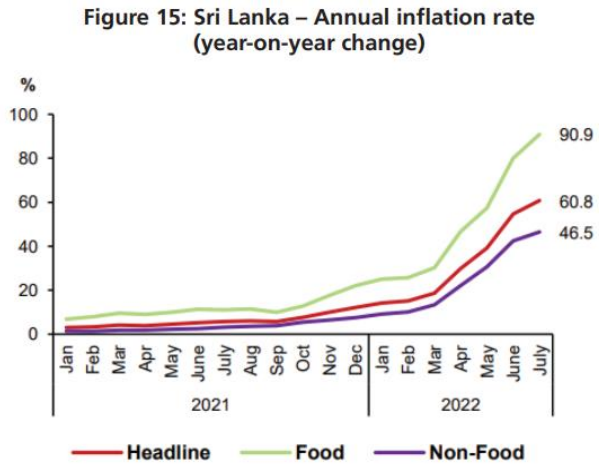


With that situation and the demand, exchange rates doubled , hence, there was no way of purchasing medicines. , The government, and others like the medical association, were asking for support from WHO and others. There were some donations.

But on the other front there is a fuel cues. Sometimes people have to wait about one week to get just five litres of petrol or diesel. There are no reserves to pay at least for the fuel which is coming to the port. We are not a fuel producing country. There is no kerosene oil a large number of people depend on to cook their meals and there were certain times when there was absolutely no LP gas because there is no money to buy it.

In that context what are we talking about health. We were in a serious crisis starting particularly from late 2021 and through the whole 2022 and we are still facing this crisis - basically because we are taking loans loans and loans. Now we are indebted about 75 to $80 billion US across the world and we have to claim that we are not able to pay back from last April. We self claimed a bankrupt country.



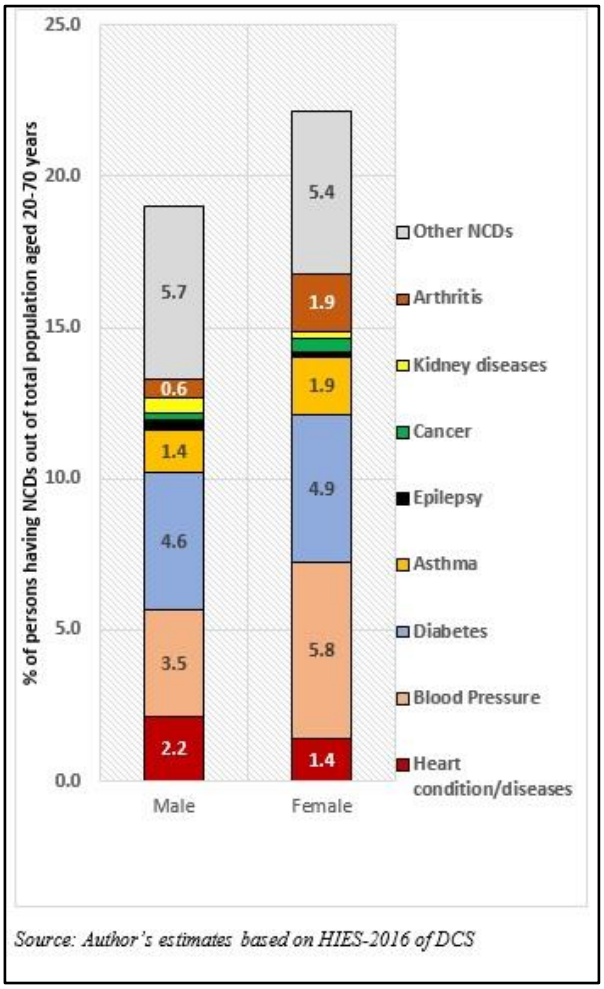


If you look at official figures, the inflation of food, non food and headline inflation you will see the extent of the crisis. From about 2021 November you can see the trajectory of inflation of the food and the general inflation. Non food includes health.

It was an extremely difficult situation because people don't have reserves after COVID. Their earning capacities have gone down they don't have anything to pay for food. Meanwhile the food and non food inflation is going up. I don't need to emphasise more the plight of people.

There are no imports and there is very little production inside. There is an IMF bail out since the last couple of months but it is a loan. We have to pay those loans. And there is world bank input but we are getting futher

indebted. We are getting loans and paying for food. We are spending all that on basic needs That is how some of the consumer and inflation indecies have gone down during last few month. However, it does not mean we are in a sustainable position.



Source: Author's estimates based on HIES-2016 of DCS

Tthis is our situation when it comes to food inflation. Across the globe we are in the sixth level behind Zimbabwe, Lebanon, Venezuela and Argentina.

If you look at the percent of food inflation you can understand the starvation and the hunger.

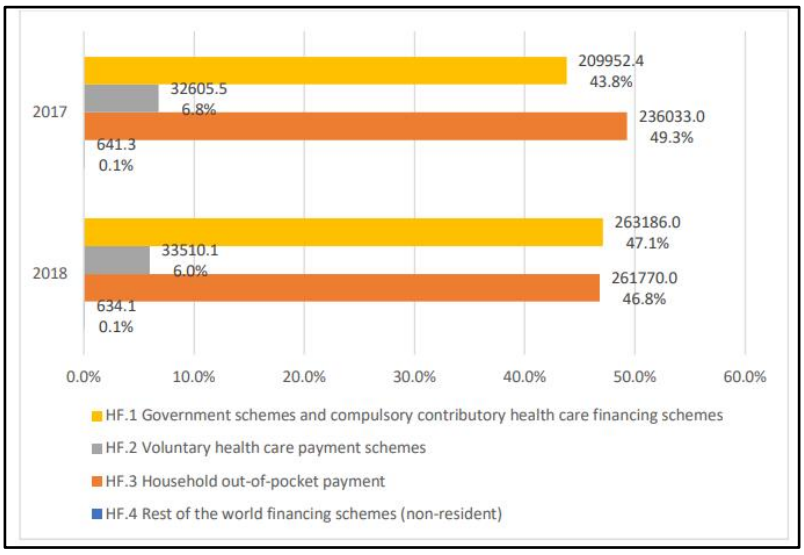
This comes, as I remind you, in a country for about 70 to 80 years was progressing and with an infant mortality rate below 8 a maternal mortality rate around 30.

Looking at the general health expenditure of Sri Lanka since year 2, 000, you will see that from $50 per capita it was rising until 2018 and these are last figures that we have.

The exchange rates have gone up twice or more from 2020/21. Our per capita expenditure for health has crashed now. However, our GDP has never gone beyond 4%.

At the current situation our purchasing parity has gone down and it's going down further. Most of the time we are talking about out of pocket expenditure for health care.

That is the worst way of financing health and could lead to catastrophic health expenditure - beyond 50 percent of our money is being spent on health. Money which could have been used particularly to feed our children, educate our children and for other household expenditure. Out of pocket expenditure is beyond 50% now - in a country which had a model health system - where you need not pay out from your pocket in either the hospital or ambulatory care.



We are having a problem, a problem that we have not seen for the last 70 to 80 years. And on top of that we need to look at our disease burdens, particularly NCDs, which need continuous support, continuous medication, continuous services.

For people over 20 to 70 years of age, about one fourth of our population is suffering from one or more NCDs, which need continuous care to control for complications. But with such high inflation rates together with high shortage of drugs within the system, the plight of individual patients is anybody's guss. When we go to the hospitals earlier and are prescribed five drugs, you will be told that only two drugs are there. The other three you have to purchase outside. Then when you step to the pharmacy, if the medicine is available, it will be three or four times higher in price then the previous price. The generall behavior of the patients with no earnings would be to postpone your health and give priority to soemthing else - particularly to feeding your children and other things. This situation means we are going to see a serious epidemic of complications of NCDs in the near future. In fact we are seeing it already.

Phamacetical sector was well regulated and really streamline back in 1971 when there was a report from Prof Senaka Bibile and Dr Wickramasinghe. That document showed a clear understanding of the political economy of pharmaceuticals and giving very clear directions for next 30 years in this country. Where they established a single procurement agency, the State Pharmaceutical Corporation for state sector and for some time it was for private sector too where the unit price was really low because it was bulk purchasing, it was purchasing by generic name and purchased for whole year at a time, reducing the unit cost and making it affordable to the health system.

But late in 2002 the then government abolished the pricing formula. In 2015 we fought against them and even went to courts and got another new drug policy. Of 480 essential drugs in the list, finally we were only able to get 60 drugs under price control - basically on NCD drugs and few antibiotics. Prices have escalated enormously within the last 2 years - many almost doubled. Medicines are not available in the hospital so paients have to buy them outside - if they are available. So patients now can't afford to buy them. The price of common antibiotic suspension doubled just within one month.

We have done some analysis of prices of certain brand names of very basic drugs against generic ones. The price increase can be beyond 100% more for most of those medicines.. Which means patents will not adhere to the treatment. Compliance will be very low and they will be only coming when they have complications. Even paracetamol prices has incresed more than 100 %. Some antimicrobials are beyond 150% increase.

Morbidity and mortality will increase in our country - due to NCDs.

So how are you going to sustain a system without support and without looking at seriously on our policies? People are not taking medicines and in the hospitals we have a shortage of medicines. These are issues we had under control in what was called a model health system - that we had for 70 to 80 years.

As I told you we had a very good system of pharmaceutical procuring, distribution and dispensing. However, because of the issues pertaining to foreign exchange - which are basically due to manipulation, the problem of the economy finally trickle down to health care and the health, the livelihoods and the life of people.

I just want to send last few minutes on this. What next? When foreign exchange issues come in any country we see IMF and world bank interventions. When countries default on foreign loans, they generally go to these institutions that have a set of conditions. We may have to look at things from the ideologies of IMF and World Bank. They would rather look at market forces to stabilise prices than government regulations to stabilise prices.

In the current context, with this inflation going up, it iss very unlikely that the market forces would do anything to stabilise prices of medicine and health care. This outcome is going to be a serious issue. Because of the debt that the country has, we are in a process of privatising state owned enterprises in a major way. For the short term they maymake profits but on long term?

Then there are proposals to have private wings in the public hospitals. That is becoming a serious issue. As I told you for eighty years, the public sector was running smoothly. Now the proposals are coming in a serious manner to make private wings in public hospitals when we can't even manage the public wings. So there will be cross subsidies going on to develop private wings in the public hospitals which will further reduce the amount of money that could go to the poor for their own health.

And there will be user charges at public hospitals. We have never had user charges at public hospitals in this country. Charges will be nominal at the beginning but could be exorbitant later.

So, all these are on the agenda at the moment. We have to seriously look at our country's perspective. Could insurance schemes help? One could say right, it's a good thing to have insurance schemes. iIn a country where over 70 percent is in the informal sector- those who do not get regular salaries how will it work?. It will be very difficult to manage insurance system, even social insurance where people can conribute money for them.

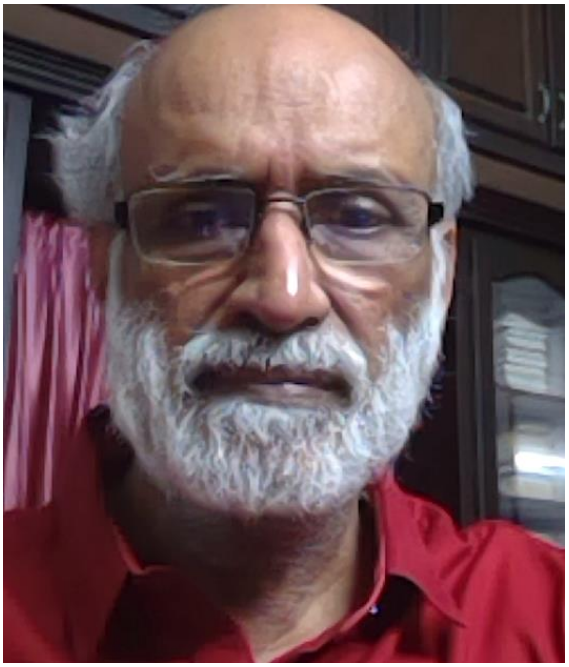
There is a huge brain drain of skilled health workers because of this crisis in the country. Health workers, doctors even nurses, are trying to get out of the country to other countries and within the last four or five months over 350 specialists have left the country. So there will be a serious problem to the country which we may have to look at.

And there is another proposal coming. Establishing a purchasing agency for health so the government would purchase but they would not provide care so all. These are on the table at the moment.

We are trying our best to look at what would be the best economic model and how to sustain our health system. We have problems at the moment because of the wrong handling of the economiy, because of the corruption, because of relying unnecessarily on foreign loans.

What I want to place here is that a country, which has had a good health system for a very long time, delivering, catering to a population with a very good health status, could come into real crisis when the economy is not handled properly. Unless we have really good political reading of the health system, people who have no understanding of the political reading of the health come to power. They occupy high seats in the health system and bureaucracy and we tend to fail. Thank you

The Kerala experience - Combating COVID-19: Dr Ekbal Bappukunju



I am extremely happy to present to you the topic I am only sorry that I cannot be physically present for the conference due to personal inconveniences.

The reason this topic is presented is because Kerala being one of the 28 states of India has a very high human development index and it is relevant to look at the way Kerala managed the Covid pandemic. In Kerala the literacy rate is very high, the sex ratio is very high and the infant mortality rate and maternal mortality rates, those very sensitive health indices, are almost on par with that of the developed countries. Kerala's population is 34 million but the population density is five times the national average.

It was in Kerala that the COVID-19 came to India for the first time and the state had managed the pandemic fairly well. I would like to share our experience in managing COVID-19.

Kerala had several advantages while we confronted with the COVID pandemic. We have a very robust public health system compared with other Indian states. Recently the government of Kerala had started what is called the *Aadram* mission. That is a compassionate mission by which the infrastructure facilities and human resources of the public health system at every level were enhanced. We also have vibrant local self-government institutions that control government hospitals from primary health centres to district hospitals and ensure community participation to improve the functioning of these institutions

We had the experience of controlling Nipah epidemic in 2018,19. And the catastrophic floods in 2017, 18 and 2019. We managed all these fairly well with the public health approach. The experience of Nipah and floods helped us to manage COVID more efficiently. But we had certain challenges also - because high population density of population and the rural urban continuum The elderly population is extremely high. Around the 16 to 17% of the population are above 60 years of age and the comorbidity is also very high.

Non-communicable diseases like diabetes, hypertension, cancer etc are very high and prevalence of infectious diseases - mostly viral infectious diseases - like dengue, chikungunya, H1N1 is also high. Moreover we have about three million migrant workers - we call them guest workers - from various Indian states plus the number of Kerala population working outside bringing the mobile persons numbers to 4. 4 plus million. Hence people's mobility is very high - they are moving constantly to Kerala and from Kerala.

We expected COVID to come to Kerala because so many medical students were studying in Wuhan in China. As early as January 2020, just after COVID was reported in China, the Covid management advisory was prepared and special control rooms were set up. We started screening at the airport for all passengers returning from China but finally on January 30th we found a medical student from Wuhan who was infected. That is how the COVID came to Kerala and the country, but we had a very efficient state level structure for pandemic management set up by that time.

This early preparedness was one feature that differentiated Kerala from other Indian states and many countries in the world. We have a state level Rapid Response Team with experts. There is a State Medical Board that prepares treatment protocols based on the Indian Council of Medical Research or WHO recommendations and we have a State Expert Group with epidemiologists, biologists, clinicians, scientists and public health experts These groups advised the government regularly taking into consideration the situation that was emerging. The government took appropriate policy decisions based upon the recommendations of these groups. The management strategy followed was as in other parts of the world, like testing and treatment. The treatment was based on evidence-based protocols.

Contact tracing based upon protocols was in place together with home and social quarantine. The younger persons with Covid were managed at home whereas the elderly with comorbidities were managed in the quarantine centres or at hospitals. The elderly and those with comorbidity were advised to stay at home.

We started what is called the *Break the Chain Campaign* exceedingly early. This campaign involved advising, masking, social distancing and hand washing.

There was a process of community surveillance and the hospitals including private hospitals were advised to keep a certain number of beds for management of COVID patients.

We had several types of COVID management facilities. One was the domiciliary care facilities at home monitored by health care workers. Then there were two levels for COVID positive cases management centres. The COVID first line treatment centres and COVID second line treatment centres were based on criteria like oxygenation level, associated co morbidity etc. In addition, there were COVID hospitals set up in in the district and general hospitals and medical colleges with ICU where ventilators and oxygen facilities were provided.

One thing which is specific to Kerala is the very good private - public cooperation. In the private hospitals 10% of beds were reserved for COVID cases. Two medical colleges run by the private hospital were given to the government to be used as COVID hospitals.

Kerala had already the Community Health Insurance scheme for the poor called *Karunya Arogya Suraksha Padhathi;* (KASP) and covers 4.2 million families, in 282 Hospitals. In the private hospitals COVID management charges were fixed and in the private labs the COVID test charges were fixed. This is very important because in many other states exorbitant fees were charged for patients for COVID management and for the tests. In Kerala, in both these cases the charges were fixed by the government. We not only managed the COVID cases but took care also to protect the poor people. Through the public distribution system free food was given to families below poverty line.

There are a large number of welfare pensions in Kerala. All the categories of welfare pensions were distributed on time. Immigrant workers were provided with housing and were given free food, Community kitchens were stablished in different parts of the state because a section of the people were not able to prepare foods. get food from outside because of the lockdown.

We have 1034 local self-government institutions - Punjayat district institutions - and in most of these places we had community kitchens. There were 853 community kitchens and 8 million people received food free of cost during the lockdown period. We also recruited a voluntary social force of 3. 7 million youngsters who took care of those undergoing reverse quarantine in their homes (elderly and those with co morbidity), providing them with medicines and food and other needs.

Another thing that was established here was Sanjeevri - that is online medical consultation facilities to give psychosocial support especially to those who are staying at home alone during the lockdown period. Public education during COVID was provided with online classes in schools and colleges. A TV channel was opened specifically for this purpose. But there was a digital debate because poor people do not have appropriate appliances: connectivity, data charge etc. So these were all provided. Therefore, we could ensure significant equity in education by providing digital devices to students below poverty line. There were hybrid classes also that were in place when the lockdown was lifted.

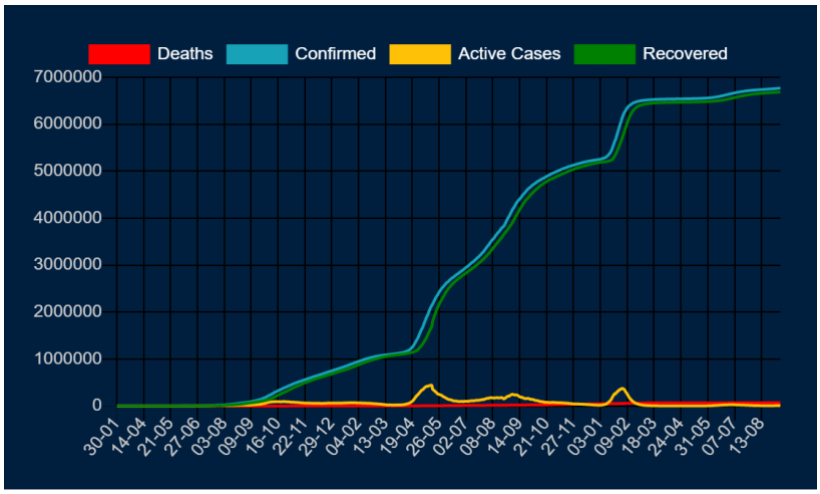
When the second wave came with the Delta virus there was some spike in the incidence of cases in Kerala compared with other parts of India. This spike occurred because our prevalence rate was exceptionally low in Kerala with the first wave was very well controlled. So very few people got infected at that time and when the second wave came with the Delta virus infection there was increasing incidence of infections in Kerala. But

because of the cooperation from all sections of society and treatment facilities were well organised when delta virus came and though the number of cases increased, there was no problem in patient management..

COVID & Non COVID Cases – Occupancy Status – Govt.

District	ICU Beds					Ventilators				
	Total ICU Beds	Covid Occupancy	Non Covid Occupancy	Total Occupancy	% Occupancy	Total Ventilators	Covid Occupancy	Non Covid Occupancy	Total Occupancy	% Occupancy
Thiruvananthapuram	498	171	152	323	64.9%	336	73	50	123	36.6%
Kollam	135	81	14	95	70.4%	130	45	1	46	35.4%
Pathanamthitta	111	56	26	82	73.9%	95	13	0	13	13.7%
Alappuzha	214	38	69	107	50.0%	187	19	10	29	15.5%
Kottayam	364	42	93	135	37.1%	328	39	40	79	24.1%
Idukki	58	45	0	45	77.6%	58	7	0	7	12.1%
Ernakulam	320	111	66	177	55.3%	220	39	9	48	21.8%
Thrissur	192	98	73	171	89.1%	131	61	15	76	58.0%
Palakkad	205	124	21	145	70.7%	127	50	2	52	40.9%
Malappuram	146	95	20	115	78.8%	101	55	4	59	58.4%
Kozhikode	412	95	185	280	68.0%	256	53	37	90	35.2%
Wayanad	126	14	32	46	36.5%	95	4	0	4	4.2%
Kannur	253	105	91	196	77.5%	156	29	16	45	28.8%
Kasaragod	73	18	10	28	38.4%	73	2	0	2	2.7%
Total	**3107**	**1093**	**852**	**1945**	**62.6%**	**2293**	**489**	**184**	**673**	**29.4%**

The percentage of ICU beds that were being used in various districts was a maximum of around 89% in the Thrissur district but at no time were either the ventilators or the ICU beds fully occupied. We could flatten the curve because we could manage all cases that need treatment by providing them with ICU care and ventilator support.

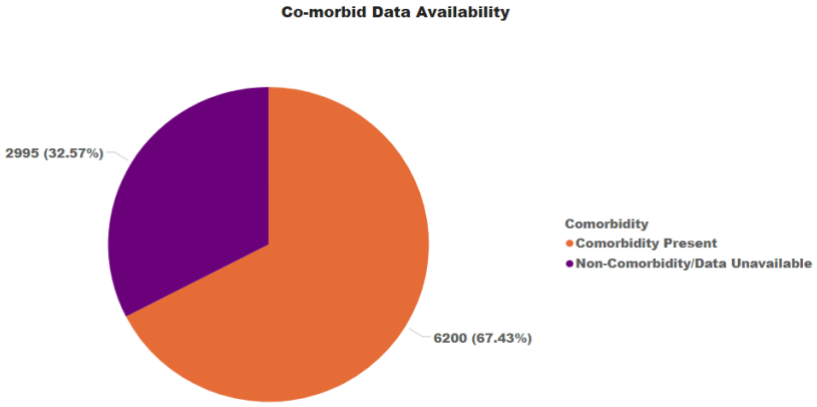


This chart is the COVID cumulative summary of Kerala - 2021-2023. Of course, the cases increased but the cure rate was following the infected case rate and the death rate was very low. Less than 1% died and the confirmed cases came down later.

So the management at all levels remained fairly good. Now looking the current status the total number of cases is around 6 million and with death reported being around 70, 000. Now there are around 10, 000 positive cases but most of them are asymptomatic.

Our vaccination coverage was also very high. First and second dose coverage was more than 80 percent. But when it comes to the third dose the coverage is not so good, but we are trying to rectify this. Since the severity of the disease has come down, people are reluctant to take the third dose vaccine but we are trying to increase the acceptance of third dose distributed through public education awareness programs.

If you look at the relationship between comorbidities and deaths, it is seen that more than 67% of deaths were in cases with comorbidities. So death in cases without comorbidities is very low. And also it is seen that death occurs mostly in the unvaccinated group of patients. When we look at the disaggregated data it is seen that most of them were elderly with comorbidities.



To sum up the experience: we could manage COVID fairly well compared with other Indian states because of the vibrant public health system (with 70% of the people covered by the government health system) and also because of the presence of the dynamic local self-government institutions. Actually it was the local self government institutions who were doing contact tracing and organisation of first level and second level COVID management centres. The public system and the local institutions work together to control the pandemic. Because of local self government institutions we could ensure community participation.

The Peoples Science Movements that I am associated with - the KSSP - and the political movements and philanthropic and charity organisations all cooperated. The Integrated Child Development Services' (ICDS) teachers, and Accredited Social Health Activists (ASHA) workers also played major role in providing various serviced to manage Covid pandemic.

The People Friendly Police also helped to ameliorate the difficulties people faced especially during lockdown. In 2008 the Kerala police had launched the *Janamaithri Suraksha* - setting up community friendly police stations. Hence community participation could be ensured because of all these existing institutions in Kerala.

The current COVID strategy is to continue to promote the use of masks especially in crowds, festivals, closed air-conditioned rooms, hospitals and airports. Secondly, testing is done for influenza like illness and acute respiratory conditions. Testing is advised in fevers - not only due to COVID but also for other conditions since H1N1 infection is very high in Kerala. If patients are detected with flu we can give antiviral drugs. Flu vaccine is also advised especially for those above 65 years of age along with Pneumococcal vaccine. We are trying to complete the third dose COVID vaccination.

When COVID still appears in clusters or when COVID patients develop severe symptoms, we do genome sequencing to pick up any variant of concern that may be developing.

Another major issue is post COVID or long COVID diseases that are emerging. We have already started Long COVID Clinics from the primary health centre level up to the medical colleges.

In addition, our research institutes are doing an Immune Decay Study. We are now looking forward to the 'New Normal' period. The major task is to further strengthen the public health institutions. We manage 70% coverage already but still we want to increase the public health institutions coverage.

Then we must reduce the morbidity. That is a major challenge because the Non-Communicable Disease prevalence in Kerala is very high. Diabetes incidence is as high as 20 percent. And infectious disease is also prevalent in Kerala so there is a double disease burden.

We are starting health and wellness centres - a central government project by which health education, health promotion, and disease prevention programs will be provided to the rural population. We also address the problems of the vulnerable sections of the population including the tribals and the fisher folk. We are doing a socio-economic study to assess the socio-economic impact of COVID on the various sections of the society.

It is necessary to further close the digital divide. One outcome of the COVID pandemic is that we are using online courses and online talks for which the digital facilities should be available to all - otherwise only those who have these facilities will be able to access the services. We are trying to get rid of the digital divide by providing internet connectivity and digital devices like smart phones free to all those who are below the poverty line.

We are thinking of doing medical research using the Open-Source Research Models based upon the COVID period global level - Open Source COVID Movement.

Currently, we are also trying to implement a *One World One Health* approach at various levels. We have already started a *One Health* Education Advocacy Research and Training Centre at the University of Veterinary and Animal Sciences and a Kerala State *One Health* Action Program with the cooperation of Animal Husbandry and the Health Department. They all come together not only to protect the health of people but taking care of the animals as well as the environment.

Implementation of the Kerala Antimicrobial Resistance Strategic Action Plan has begun to manage the issues related to antimicrobial resistance. Here also the Health and Animal Husbandry departments are collaborating. We hope we have managed the COVID pandemic well and we are happy to share this information with our friends and colleagues.

Before I finish, let me pay tribute to the departed health activist legend who was always a source of inspiration to all of us - Dr Zafrullah Chowdhury. I wanted to come to this conference hoping to meet Zafrullah Chowdhury again and spend some time with him. Unfortunately he left us, but I pay my sincere and heartfelt tribute to Dr Zafrullah Chowdhury. Thank you very much.

Panel discussion moderated by Tan Sri Dzulkifli Abdul Razak

Dispensing Separation: Is it merely an academic discussion:

Dzulkifli Abdul Razak: Greetings of peace and a very good afternoon. Indeed this is I think, a very much anticipated session where we going to have a little more of interactions. The discussion is about this dispensing right. Is it a real academic thing? For me it is a question that is very important. It is also fifty years old. Because when we stop asking this question, perhaps is time to ask the question again Even the background of information that we have in the last two days has been phenomenal. I think the last session actually tells us if we don't work together then healthcare will be for the individuals in certain sectors not for the people that we are supposed to serve.

So I hope this a session where everybody will participate and indeed we are very lucky to have the experts people who have experience in different sectors contributing as panellists today.

This going to be a session that takes probably 90 minutes. We have enlarged the time by 30 minutes because we thought there needs to be a kind of a comprehensive discussion. Hopefully that we will narrow down to some sort of a decision at the end of the day.

How we going to carry this on I think is there be two round of sessions. The first session is about how prepared are we? What is the state of affairs today? If you were to talk about the dispensing right. The objective of dispensary rights has been summed up by the many talks that we had since yesterday and until today as a kind of a right that is given to the people via the teamwork that we are talking about in terms of health care. we need to somehow keep to time so we can go into the second round of the discussion so we can actually try to realize this discussion.

If the time is not ready, what are the things that we need to do? If you are ready, what next is to move on, right? So, it is exciting that we have you all here. On my right here is a good friend since a long time Saudhara Ambrahibang who is a president of the Malaysia Pharmacy Society. On the very far left here Dr Kumah Tajani representing Mercy Malaysia bringing to us a kind of a global experience. On the other side, another friend Dr Jaya Balan who is representing the consumer association of Penang and on my left here from HAIAP, Beverley Snell. Beverly will be talking about the Australian experience as a kind of experience that have been going on for a long time, and last but not least Doctor Kiruna Vaka Rashu Raju, the honorary general secretary of MMA. So, there you are. Alright. So, without wasting much more time, I would want to start off with Amrah.

Being perhaps the person who is actually key to this issue of dispensing, dispensing rights, being the president of the Pharmacy association. What I want to know from him is basically how prepared are we in trying to realize dispensing right if it at all possible in the context of the number of pharmacies. We often talk about the ratio between pharmacies and doctors the distribution of pharmacies this gives you a kind of a statistical understanding of where we are now how prepared are we to move forward so five minutes from you please.

Prescribing and Dispensing Medicines in Australia

Beverley Snell PhC MApplSci PHCb OAM

In Australia prescribing and dispensing were always separated - from the time of colonisation of the country in the 1800s.

National Medicines Policy and Pharmaceutical Benefits Scheme (since 1970s)

The Pharmaceutical Benefits Scheme (PBS) is an Australian Government program that ensures access to essential medicines for all Australians by subsidising medicines from the PBS List to make them universally affordable.

How do medicines get on the list?

The **Pharmaceutical Benefits Advisory Committee (PBAC**) (medical experts and specialists) is an independent statutory body established under the *National Health Act 1953* to make recommendations and give advice to the Minister about which drugs and medicinal preparations should subsidised and available on the PBS and how they should be used - diagnosis, dose, duration other conditions. The Committee considers the medical effectiveness, appropriateness and cost-effectiveness of a proposed benefit, compared with alternative therapies. Maximum quantities and repeats are determined, and also restrictions for particular medicines.

Prescriptions written for PBS medicines must match all the conditions specified in the PBS list. It is easy now because the PBS computer software automatically prints a prescription according to all the rules. The software system includes the mechanisms for reimbursement to pharmacists. (It was initially all paper based!!)

What are Unrestricted, Restricted, and Authority Required Items?

Listed medicines are referred to as numbered items under the PBS. These medicines can be supplied as an **Unrestricted, Restricted** or **Authority Required** item:

Unrestricted medicines under the PBS Schedule may be prescribed by an authorised prescriber within their scope of practice at their discretion.

Restricted medicines listed in the schedule, are only prescribed for conditions meeting the stated restrictions. Examples are restricted antibiotics and 'specialist' and new medicines.

Authority Required medicines are prescribed for specific conditions to facilitate care. The prescribing process is streamlined by accessing a streamlined authority code. *Authority Required* medicines are medicines that can only be prescribed if ***prior approval*** is obtained. The doctor can apply for authority for most of the relevant PBS medicines online at Services Australia.

Who can write prescriptions?

Each prescriber (qualified, registered and authorised medical practitioner) must hold a valid PBS **Prescriber Number** (especially applied for) to write a valid PBS prescription for prescription only medicines. The prescriptions must either be computer generated or handwritten. If handwritten, the prescription must be in an indelible form in the prescriber's handwriting, and on standard PBS stationery. The prescription must be signed and dated by the prescriber and forward or back-dating is not permitted.

All PBS prescriptions must comply with the following conditions: They must contain the prescriber's name and address; the patient's name, address, and entitlement status; and endorsed PBS or RPBS. Prescriptions should completely identify the medicine being prescribed. The following should be defined:

- Item (Generic name)
- Form
- Quantity
- Dose
- Strength
- Instruction for use
- Whether brand substitution is allowed

Who can dispense PBS medicine?

By Law: Dispensers of PBS medicines must be approved and registered by the Department of Health and Aged Care. **Dispensers will only be pharmacists**, plus authorised doctors in certain remote and rural areas where there is no reasonable access to a pharmacist.

Across some 80 sites in rural and remote Australia, there exists a unique model of general practice in which general practitioners, as part of their routine medical practice, both prescribe and dispense medicines to their patients. These dispensing doctors (DDs) are licensed to dispense pharmaceuticals subsidised by the Pharmaceutical Benefit Scheme (PBS) because there is no local access to a community pharmacy.

Note: Contrary to overseas findings, there was no evidence that Australian dispensing doctors overprescribed because of their additional dispensing role.[14]

Doctor's Bag supplies

Doctors may keep a supply of medicines for emergency use, for example for patients seen after hours at home. There is a special list of medicines that can be kept by doctors for emergency use and those medicines are supplied free of cost from the pharmacist, on presentation of a special form. Pharmacists are reimbursed through the PBS for the supplies given according to this procedure. There is enough of each medicine for twenty-four hours or for a first dose of a critical treatment. This procedure is part of the Government PBS. The doctors are allowed to provide doctor's bag medicine directly to the patients but they also provide them with a properly written prescription. They tell patients to go to their pharmacy with the prescription as soon as possible where they will receive the full medication together with all the instructions how to use it.

BY LAW: ALL DISPENSED MEDICINES LABELS MUST COMPLY

- Name of patient, date, name of prescriber, name of pharmacy (or dispenser)
- Name of the medicine (generic name) and strength
- Dosage form (tablet, cream, etc)
- Dose prescribed
- Route of administration (oral, topical)
- Frequency of dosage (how often do they take it)
- Length of treatment (1 week, 1 month, or until finished - etc)
- Additional instructions (with food, on empty stomach etc)

By Law: Dispensers must check to make sure that the dispensed product and all the above information is present and correct.

If there are any changes, they must be recorded on the prescription and on the prescribing record, signed and dated.

Accurate complete retrievable records must be kept.

Pharmacy in hospitals

In hospitals the doctor comes to the patient and explains that he/she will prescribe some medicines, but usually says little about them before leaving the patient. Before leaving, the doctor will write on the board at the end of the patient's bed. There might be clarification at the nurses station about what has been ordered. In any case, the hospital pharmacist will have received the instructions about medicines through the operating system and later in the day, a pharmacist will arrive at the patient's bed with the medicine, and will explain to the patient what the doctor has prescribed and why, and how it should be used, and ask if there are any questions. All the patient medicine history is in the pharmacy computer so any contra-indications or other important information will be flagged. If needed, the pharmacist gets in

[14] Australian dispensing doctors' prescribing: quantitative and qualitative analysis: A study undertaken to assess whether prescribing Drs were over-prescribing because of their dispensing role
David Lim, Jon D Emery, Janice Lewis and V Bruce Sunderland
Med J Aust 2011; 195 (4): 172-175

touch with the doctor to clarify any issue before dispensing and providing the medicine. It is the pharmacist who has the capacity to sort out any medicines issues and to talk to the patient unhurriedly.

Clinical pharmacy is a further dimension of dispensing and a key pharmacist service in hospitals and in the community

Clinical pharmacy involves:

- A relationship between good dispensing practices and good pharmaceutical care
- A team approach - communications with patients and their families and carers, other health professionals and the public
- Ongoing patient care and review including adverse drug reaction (ADR) monitoring
- Long term care and support of patients with, for example HIV and chronic diseases, and developing a monitoring strategy
- Monitoring medicines use in the community
- Systematic and complete documentation and record keeping in the dispensing process - a critical part of supporting a pharmacist's patient care.

Beverley Snell Award: Catalyst Crew Video Challenge

In conjunction with the HAIAP Forum a video competition was organised with the theme **'Access to Health and Human Rights'** as a platform to highlight the contributions of youths to the society. The title of this competition was 'Catalyst Crew: Youth Changemakers Video Challenge'.

The goal of the competition was to highlight the creativity and innovation of participants in the context of community and social engagements. Through this event, we also aimed to celebrate the spirit of philanthropism and volunteerism among the youth while fostering idea exchange and creativity expansion using digital content making.

Who could participate?

- Students from public or private universities in Malaysia
- Aged between 18 to 25 years old

We believed that university students have the power to be catalysts for change to the community and we were positive that this competition would attract enthusiastic youths keen to make a difference in their communities. We were not wrong. Seven teams entered with extremely impressive videos showcasing their involvement in community-based projects and activities.

The top most inspiring videos will be featured on our website and social media platforms, giving the participants and projects the exposure they deserve.

Winner teams were awarded with 'Beverley Snell Award' medals and certificates during the HAIAP consultative forum on 28th May 2023 in Universiti Sains Malaysia, Penang.

It was very hard to judge the winning three but the three top most inspiring videos were judged by a panel of independent community and academic peers to be:

1. Community Health & Wellness: FREE Health Screening Baktisiswa Project 2022

2. Dengue Social Media Campaign

3. HERBA ATAU PIL?

Catalyst Video Competition results

1. Community Health & Wellness: FREE Health Screening Baktisiswa Project 2022

School of Pharmaceutical Sciences, Jalan Universiti, 11700 Gelugor, Pulau Pinang, Universiti Sains Malaysia

Baktisiswa project is a community service project where 36 students accompanied by 4 lecturers from School of Pharmaceutical Sciences USM visited Kampung Kota Aur, Penaga Pulau Pinang on 20-21 August 2022. It was planned fully by the students and was done every year as an annual program. One of the programs that we organised was free health screening for the villagers which was done on the first day (20 August 2022). The highlight of this project is to guarantee that everyone can get their health screened without discrimination of any kind based on race, birth status, economical and social situation. Based on interview with one of the participants, this program gives a good impact to the society because the villagers of Kampung Penaga are becoming more informed regarding health awareness and spread the information that they got among each other.

https://youtu.be/iThaso5K-kI

2. Dengue Social Media Campaign

University of Cyberjaya (UoC), Persiaran Bestari, Cyber 11, 63000 Cyberjaya, Selangor Darul Ehsan, Malaysia

Dengue Social Media Campaign was conducted during February at multiple venue/platform which includes University of Cyberjaya, Tamarind Square,The Arc Cyberjaya, and Instagram @endemicdisease_scout.

The public community of Cyberjaya was our targeted demographic for our project.

The number of accumulated participants of our campaign is 2781 individuals from wordle and crossword puzzle participants, trivia reel participants, dengue reel participants and social media audience. Some of the outcomes measured from our campaign is high interaction from our participants, their understanding after reading pre-provided infographic as shown in trivia reel and participation rate. Both Trivia reel and Dengue Reel reached over 1000 views in 24 hours after reels were posted.

We also managed to get a lot of positive feedback from the community such as they eyed our social media content and are looking forward for more. Ultimately, the impact of our campaign is that dengue awareness was raised among the community.

https://youtu.be/eYks0YyPv4A

3. HERBA ATAU PIL?

Kulliyyah of Pharmacy, International Islamic University Malaysia (IIUM), Jalan Sultan Ahmad Shah, Bandar Indera Mahkota, 25200 Kuantan, Pahang

This recording project titled "Herbs Or Pills?" was prepared by the students of the International Islamic University of Malaysia. This recording was done at Kulliyyah of Pharmacy and GPharmax Pharmacy at One Stop Student Centre IIUM

Kuantan. The target population of the video is the elderly group especially for those who are too dependent on traditional medicine and do not see the value of any modern medicines. Our group consists of 5 Kulliyyah of Pharmacy IIUM students.

The objective of our video is to eliminate the stereotype that modern medicine harms the body and foster the confidence of the elderly in modern and professional medical methods. The targeted impact of our video production is that confusion about traditional and modern medicines can be eliminated through the dissemination of correct and accurate information. The information disseminated can also promote the effectiveness of more efficient medicines. Thus, the young generation needs to take advantage of the social media facilities to give the public awareness of the ethics of safe and effective medical use.

https://youtu.be/QpnoYRHRhek

Other entries:

Limitless 5

School of Pharmaceutical Sciences,Jalan Universiti, 11700 Gelugor, Pulau Pinang. University Sains Malaysia (USM)

Baktisiswa Penaga 2021/2022 https://youtu.be/4qxJZpGfLGQ

Teddy BeaRX Crew

School of Pharmaceutical Sciences, Jalan Universiti, 11700 Gelugor, Pulau Pinang, Universiti Sains Malaysia**.**
Teddy Bear Pharmacy https://youtu.be/p-nikjuX55Q

Pharmacy4Kids

School of Pharmaceutical Sciences, Jalan Universiti, 11700 Gelugor, Pulau Pinang, Universiti Sains Malaysia

https://youtu.be/q06Jie5b6VY

Ditechtives

School of Pharmaceutical Sciences, Jalan Universiti, 11700 Gelugor, Pulau Pinang, Universiti Sains Malaysia

https://youtu.be/eRbdyKI9PyQ

Final Words: Tan Sri Dzulkifli Abdul Razak:

Assalamu alaikum, and a very good afternoon.

I am a very honored to be given this privilege of 'making a summary' but I will not do that. For a simple reason that I don't know what to summarise.

After 50 years I've learned quite a bit about some of the things that we have gone through in the last two days. But at last I discovered that there are many more that I need to learn and therefore I am very thankful that we are here today to open up our minds and to see more things in the days to come - on top of whatever we have learnt since yesterday.

This morning alone when I listened to Beverley and all the things that she said about intellectual property rights and access to medicines. There are so many things that are very much hidden and that have changed over the period of time.

Then you know what WHO was during my time when I was a student. WHO was a place where you actually took things almost for granted. You supported WHO all the way. But it does not look that is necessarily the case anymore. As with all the other areas that we learnt about today - things are changing. This has been a learning experience about things we need to take into account as as we move forward. Again, compulsory licensing is something that I do know about but now there are other things that we need to know as well - and I'm very delighted to find out that Malaysia does actually have a way of doing things to take advanage of Compulsory Licensing that other universities or other places can follow.

Talking about antibiotics. It was kind of simple that you follow certain rules about antbiotic use but now Niyada in Thailand explains all the other things that have to be considered - antibiotic use in agriculture and horticulture and Antibotic Smart Use (ASU). I had never heard this before. So in a nutshell there are many more things for us to learn - and for the students.

I have to go out and find out some more for myself because I am not happy with what's going on here today. I think you are very lucky that things come to you. You all have to sit down and just to listen to all these prolific speakers and hear their experiences. You get everything wrapped up in a day - things that we had to struggle and learn about for the last 50 years. So you must be very lucky and this is at the university that I talk to you about.

USM is a university. HAIAP is another university - a different form, different format, different ways. Together they bring the amount of knowledge, the amount of awareness and the kind of courage that I hope you are endowed with to move forward.

So I will not wrap up but quite certainly what I will say is: this is a very successful conference, a very successful forum, not only in terms of knowledge dissemination but also in terms of building relationships, getting new economic senses and also moving on.

Tomorrow will be the test with how we transfer some of the experiences to our own students and ourselves and how do we actually move forward to make sure that HAIAP remains the kind of flagship that it is meant to be and to move forward with the kind of changes that we are going to see as far as health care is concerned.

So let me thank you for this and I want to name four people that I have been associated with since we first started this whole idea of a forum. It was almost like a dream. We have not had any forum for so long because of the COVID-19 pandemic and some other constraints. Some of the heroes that we were supposed to bring are not here but I want to name at least four people who are actually instrumental. Anwar Fazal certainly is one. Thank you Anwar for always giving us inspiration. Anwar has something to say all the time. I think you received a yellow note from Anwah during lunch and you know you are lucky to receive it. And sometimes you see something bigger than that. So thank you so much Anwar for encouraging us to do this. Yoke Ling is another person. If you have run into problems after all was settled she will re-settle them somehow or other.

Mira is another source of inspiration. She knows a lot about things happening around the world. And now this Forum will happen. This one person that made it happen - who pushed everyone else to make it happen is Beverley Snell.

Every morning I open my my email there will be an email from Beverley - either putting new ideas or asking confirmation of ideas or otherwise asking whether this is the right way to do something. For the last many months everything was organised virtually and online. And Beverley I salute you for the kind of initiative, the kind of strength and the kind of commitment you show.

Another one is of course is Hadzliana Zainal who is the connector. Without her it could not have happened.

Another one connecting today is the Master of Ceremonies (Emcee) Kashvin Jeva. So thank you very much Kashvin.

All of you are an inspiration and I hope this forum will generate another place for us to work together and I would want just to remind ourselves here in the context of what we are talking about today, in terms of so many things that are happening.

One of the things that scares me is a question of racism not only in Malaysia but all over the place. I think not only in the education system but also in sports, in places that we do not imagine, and I do feel that when I was a student this whole issue of racism did not exist at all because we were working on one particular project that was relevant to everybody. Our work is about humanity. It is not about one particular person, one particular group, one particular nation, one particular community. We are talking about everybody coming on board and health is one of those platforms.

If we can use health as a platform where we can work together, that forgets about 'we belong to this particular sector that particular sector' I think we can settle this very very quickly and I do hope that health - the common theme that we will fight for - will succeed because the world is ailing.

We need some sort of a remedy and that remedy will start with us working together. Especially the young generations. We start working together. You find that suddenly all our issues are common. We talk about poverty - it is common. We talk about the kind of *health issue* - it is common. We talk about anything. So I think if everybody shared the common experience, and the more experience we put together, I think the easier we will overcome - at least from an education point of view - that is education.

You've got a degree but you've got a kind of mindset that is not - I don't know what to say - but it's not exhibiting an educated sort of mindset. Then I think you have failed in your exam - doesn't matter you get first class honours or whatever it is. I think the mindset is important that makes a difference. We will see the difference being made for years to come.

I just want to end off by saying that I used to work in this place. And that's why I use a different a different shirt today just to remind me that I am part of this university. Innocently I stepped into this university in 1971, and went on learning and enjoying myself of course. Those times were different times. We don't have this at our University, where I am now - at IIUM - so I have a slightly different experience from what we have here where we are able to engage with the people that I've mentioned - the consumers association - the bedrock of activism that does things that have never been imagined. But next time around these kinds of things make you what you are and make you the kind of agent for change around the world.

So for that I would like to honour my first university for giving me something that I am supposed to do but I didn't do it well. As a pharmacist. You know I somehow rather lost steam as far as being a pharmacist is concerned.

After learning of all the things that you heard from the speakers - I'm sure if you had listened to this before enrolling in the School of Pharmacy you probably would not want to join the School of Pharmacy.

So I ran away from pharmacy and I went into academia - but I found the same problem in academia. But that's another story. Now I just want to leave something behind and this is a symbol of pharmacy. We should have at least one. During my time going around the world I collect this stuff. I have more than 200 pieces. But fortunately / unfortunately I gave more than 150 to the University of Nottingham School of Pharmacy - maybe some five years ago when they gave me the honorary doctorate

and also made me the honorary professor. If you go to their school of pharmacy you'll probably see them being exhibited.

I have some more so I want to give these to this university. I don't know whether Habiba would want to receive one - being a former Dean. I have 17 here at the moment there are some more in the the boxes that I will get. I want to give you at least thirty. That is for the time that I spent in this university as an academic staff. If I can get another maybe nineteen or so, sometime I will make it fifty for the 50th anniversary of this school and university. So, there you are - from the biggest which is this one, to the smallest, they are from all over the world. You know, I remember getting these and now I hope this will be a kind of giving back to the university, however modestly it could be. Thank you very much. We would like to call upon Doctor Nuurzina to receive this honorable gift.

Special Tribute: Vale Dr Zafrullah Chowdhury

Dr Zafrullah Chowdhury was one of the founders of Health Action International. He was born in December 27, 1941 in Raozan, Chittagong. He passed away at 11 pm on April 11, 2023. He leaves his wife Shireen, son Bareesh and daughter Bristi. Our sincere condolences are with them. It is a devastating loss for all of us. Dr Zafrullah has been a fighter, mentor, guide and inspiration. He has been the father of a huge community family in Bangladesh and leaves Gonoshasthaya Kendra as a living memorial to his life. We will remember forever his uncompromising role in the battle for health and justice for all.

In 1971, during the Bangladesh Liberation War, he and colleagues set up the 480-bed Bangladesh Hospital for freedom fighters and refugees; run by a team of Bangladeshi doctors, medical students and volunteers. Women were trained within days to help provide care for patients.

Gonoshasthaya Kendra (GK) was set up in Bangladesh in 1972 when Dr Chowdhury took on the challenge of developing an effective rural health care delivery system based on his experience of running a field hospital with young women and men with no previous medical training. GK began providing all basic healthcare to the community with paramedics from the community – trained at GK and supported by a strong referral system. The experience of GK became the basis of one of the main working papers on which the Alma Ata Declaration of the World Health Organization was framed. One of the first initiatives of GK was the local manufacture of affordable high quality essential medicines. Over the years GK expanded geographically as well as beyond health care to include appropriate technology and skills building especially for women's empowerment while continuing to respond to current challenges such as natural and man-made disasters, epidemics and working conditions - especially for women.

Zafrullah believed that women should not be the recipients of training in only stereotypical women's pursuits - craft work, basket making etc. Women's development options should include professional training to provide the services that a population cannot live without: electricians, plumbers, drivers, builders, carpenters, boiler makers, printers and more. GK has succeeded in breaking social barriers and creating a training environment conducive to women's confidence building and skills development, as well as self-determination for the whole community. This environment has allowed both capacity building and job creation for those rendered poor, especially women; as well as better health care for those who have not in the past had the access to the means to health care. Nationally, this work has influenced the government to include community health workers in its health and family planning program and also influenced the government to increase opportunities for women in other sectors.

The mainstay of GK's health care delivery system rests on a team of community health workers called 'paramedics', most of whom are young rural women. Through them, health services have reached rural homes and the poor in particular have been able to gain access to education, medical services, health education and essential medicines.

Zafrullah Chowdhury was instrumental is setting up the Bangladesh National Drug Policy. The Bangladesh National Drug Policy formulated in 1982 ensured access to essential medicines for all Bangladeshis. Before that most drugs – many unnecessary or even dangerous - were manufactured and distributed by multi-national companies, priced out of reach for most of the people - while the most essential 150 remained in short supply.

The GK centre also runs a university, hospital, agriculture cooperatives, printing press, community schools, a generic drug manufacturing plant and a vocational training centre. All basic services, for example plumbing, electrical services, vehicle maintenance, carpentry are provided by women who are trained on site. GK's philosophy of people's health care has two main pillars: economic and health security. Primary Health Care with a holistic approach to health is a basis for human rights.

GK Response to current needs

A dialysis centre for all who need it in Dhaka, Bangladesh

According to Zafrullah Chowdhury:

'Global institutions like the World Health Organisation and the World Bank are paying too little attention to health economics. I think European donor governments should promote, at the global level, the kind of governmental health care that works so well in their own countries. The challenge is two-fold. Services must not only become available, but affordable too. The free market does not deliver that. To cover everyone, solidarity is more important than competition. And in regard to non-communicable diseases, we must consider that availability and affordability are both long-term issues. If you are diabetic or suffer from hypertension, you must take your pills every day for

the rest of your life. It is not like taking an antibiotic for a few days. People who depend on dialysis need a session every other day. Making that happen is a huge challenge.'

The GK Dialysis Centre was opened on 13 May 2017 with the capacity to serve 400 patients a day. Haemodialysis uses a machine to replace the function of the kidneys to filter blood to remove waste products and water from the blood. The centre is equipped with 85 of the best German-manufactured dialysis units and 15 Japanese-made units. It is the single largest dialysis facility in the country.

The centre was set up to provide affordable dialysis for poor patients. The charges vary according to the economic status of the patient. GK had planned to provide dialysis for up to 25 ultra-poor patients per day for free, for 300 poor patients at 1,100 Bangladesh taka[15] per session, and for some 100 middle-class patients at BDT 1,500 per session. The actual cost per session is estimated at BDT 1,700. The plan was to have sufficient rich patients who would avail of the dialysis service at BDT 3,000 per session in order to meet the deficit of approximately BDT 80,500 per day.

However, the charges have since been revised downwards so the ultra-poor continue to get free services, the poor pay BDT 800, the lower middle class BDT 1,100, the middle class BDT 1,500, the upper middle class BDT 2,500 and the rich BDT 3,000. The revisions were made to accommodate a larger number of poor patients coming from outside Dhaka city who have to spend a substantial amount on transport and having someone to escort them. GK has observed that if a patient can afford to undergo haemodialysis three times a week for three months, they can go back to work and travel without escorts to the dialysis centre.

Bangladeshi NGOs, industrialists, business houses and a host of individuals have contributed to the setting up of the dialysis centre. Dr Muhammad Yunus's Grameen Social Business has extended an interest-free loan to meet the deficit.

Health cover for ready-made garment (RMG) workers

After the Shahriar garments collapse,[16] Tazreen Garments fire[17] and the biggest ever tragedy in the garments sector, the Rana Plaza collapse,[18] GK saw the need to provide sound and affordable health services for the low-income workers in garments factories.

A strategic paper was drawn up on providing comprehensive health care to RMG workers in Bangladesh. To make the scheme possible, GK partnered with SNV[19] - the Netherlands Development Organisation - to provide sexual and reproductive health services for women RMG workers. Subsequently, in response to demand from the workers, GK extended its services to the male workers. GK provides dental care, physiotherapy and ophthalmic care along with general health services to ensure comprehensive health care services for this low-income group.

In Bangladesh's garment industry, the workers mostly deal with general illnesses such as fever, diarrhoea and colds and some non-communicable diseases by purchasing over-the-counter medicines. Major reasons for not seeking further medical assistance are the cost, time constraints and, most importantly, not having onsite health facilities. Most factories do not have any medical doctors or nurses to care for their staff, nor are they linked with any healthcare program of the government or non-government organisations. Therefore, the overall objective of the project is to make health services available, accessible and affordable for the workers and thus improve their health status and productivity.

The current project is funded by Weave Our Future (WOF)[20] with technical assistance from SNV.

Treating COVID-19 patients: Gonoshasthaya at their doorstep

Sadi Muhammad Alok

In August 2020, Gonoshasthaya Kendra started an initiative to treat coronavirus patients at their homes with mobile medical teams, in four areas of the capital, Dhaka. The Gonoshasthaya Kendra Mobile Corona Medical Services also collect samples from people with coronavirus-like symptoms from their homes in Dhanmondi, Kalabagan, Old Dhaka and Mirpur.

[15] The current conversion rate is BDT81 for USD1.

[16] https://cleanclothes.org/news/2005/04/01/factory-collapsed-bangladeshi-garment-workers-buried-alive

[17] https://en.wikipedia.org/wiki/2012_Dhaka_garment_factory_fire

[18] https://www.ilo.org/global/topics/geip/WCMS_614394/lang--en/index.htm

[19] SNV stands for Stichting Nederlandse Vrijwilligers

[20] https://weaveourfuture.org/en/the-foundation/. WOF works to improve working conditions within industries in developing countries, particularly within the textile industry, as well as living conditions for workers and their families.

Dr Zafrullah Chowdhury, founder and trustee of GK, explained that GK's medical officers will visit homes in ambulances for COVID-19 patients who call the institution or book the service using a special app. The service was provided every day from 9 am to 8 pm, he said. There are two types of services they can provide through home visits - firstly, carrying out tests on a large scale, and secondly, if any COVID-19 patient calls them, their medical team will go to the patient's residence and provide the necessary management.

Treatment is according to WHO guidelines with all chest X-rays, ECG and all the needed tests carried out; in other words, a hospital would go to a corona patient's house.

Dr Chowdhury told *The Daily Star* that the government had not taken the necessary precautionary measures regarding COVID-19 treatment.

> *'I have been saying from the beginning that oxygen is most needed for COVID-19 patients. We can easily produce that oxygen ourselves. It costs around Tk 30 crore (about US$350,000) to build a small oxygen plant, and it is not difficult for the government to spend [that amount]. If the money is given to the hospitals as a grant, they can produce oxygen as per their requirement.*
>
> *'At the same time we from GK will teach other people associated with the COVID infected patients how to measure temperature, blood pressure and oxygen level. We will provide this service from door to door, so that the crowd in the hospital is reduced and the panic among the people is also reduced.'*

Dr Chowdhury said there is no alternative to standing by the people amid the deteriorating COVID-19 situation

IN MAGNANIMITY and service to humanity, Dr Zafrullah Chowdhury (1941–2023) dwarfed many people comparable to him in professional background and expertise. His social activism and medical philanthropy for the downtrodden in Bangladesh will remain of enduring value and will continue to play an essential role in society. Early in life he relinquished the glamour of the prospect of a bright medical career in the UK to serve his country and its people. He chose a modest lifestyle that many people of his stature would find freakish, weird and aesthetically unacceptable.

Even in his sickness, Zafrullah Chowdhury maintained the principle of health/medical egalitarianism by refusing to seek privileged medical treatment. He trusted the physicians of his Gonoshasthaya Nagar Hospital in Dhaka's Dhanmondi and relied on the medical services that he founded. He declined to receive medical care overseas or in healthcare facilities other than his own in Bangladesh.

Dr Md Mahmudul Hasan
Teacher of English and postcolonial literature at International Islamic University Malaysia.
https://www.newagebd.net/article/199546/a-champion-of-health-care-for-the-poor

Special tributes

Dr Mira Shiva

Dr Zafrullah was unique, a visionary, courageous, creative, committed, passionate about what he believed in, assertive and even adamant. He dreamt impossible dreams and much to our amazement with all his grit, persuasion and capacity to convince and take others along, actually fulfilled many.

It was when I was invited to the GK Pharmaceuticals inauguration that I first met him. First impression of GK was sheer amazement, the security guard, the driver of the mini van, most of the workers in GK Pharmaceuticals were women. The effort towards women's social and economic empowerment was obvious with women workers making jute bags, doing carpentry, electrical and iron work and as time went on they were doing everything society depends on.

Most impressive of course was the role of the trained GK Paramedics, provided with supportive supervision and linked to referral services in the GK Hospital - among other services bringing down Maternal Mortality drastically. They travelled to remotest corners by bicycle and when use of bicycles by paramedics was opposed by some religious leaders, Dr Zafrullah had said if the Quran forbids it I will stop their use.

Dr Zafullah initiated the Bangladesh Drug Policy in 1982. We supported it, sending congratulatory messages which were overwhelmingly more than those (including MNCs) opposing it. The policy was in keeping with WHO Guidelines and as Dr Zafrullah always said, it was inspired by India 's Hathi Committee Report, which we in India had failed to implement. Production of Essential Drugs Banning and removal of irrational hazardous drugs were major components pf the policy

It was in Penang in one of the meetings that included Dr Balasubramanium and Dato' Seri Anwar Fazal with Consumer International - much before 2000 - that the proposal was raised about the need to have a Peoples Health Assembly (PHA) in 2000 - there was supposed to be Health for All by 2000. Dr Zafrullah proposed GK Savar as the venue.

His point was that it was important for others to experience the situation in Bangladesh. Solutions for our region had to be relevant to our social, economic and political reality. Moreover health activists from neighbouring countries could come by road- not everyone could afford airfares. Zafrullah took big risks and massive loans to get the PHA Building ready in time. The electric wiring was still being done when some of us arrived early.

PHA 1 in Savar in 2000 was an inspiring experience for all those who attended, and more so for those like Dr Qasem Chowdhuy who were involved with organizing. There were little bamboo huts with benches and tables serving food cooked by community women - no contractor or caterer - delicious local food, served with dignity, eaten with relish - with chicken and fish served as well as appropriate vegetarian food.

We used to ask Dr Zafrullah to record his experiences and insights, his victories and challenges- personal and professional. We all had so much to learn. Among the publications he produced was the Politics of Essential Drugs in 1985, published by Zed books. So I remember dear Dr Zafrullah for his courage, for his leadership, for his gender sensitivity, his deep sense of Social justice, his tremendous capacity to tread new paths.

Dr Zafrullah was wanting to come to our HAIAP meeting in Penang, where HAIAP had lived so long. It was not to be. We will miss him deeply. The loss is immense - for GK Colleagues, family members especially for dear Shireen, who was a constant pillar by his side - and children Bristi and Bareesh. Dr Zafrullah remains part of our lives because of who he was and what he did for others in many many ways. We miss you deeply Dr Zafrullah.

Jörg Schaaber, BUKO Pharma-Kampagne, Germany (BUKO has travelled with HAI since the beginning in 1981)

I first met Zafrullah 40 years ago at a WEMOS conference in Amsterdam where he exposed the promotion of anabolic steroids for child growth in poor nations ('helping to gain full weight and height').i This was not only dangerous but would lead to stunted growth. Zafrullah did not only criticise the reckless marketing but put it into a broader public health perspective: All children need is enough food.

BUKO Pharma-Kampagne was very impressed by the essential drugs policies in Bangladesh which Zafrullah inspired and defended. We decided in 1987 to invite him to our conference *Less drugs – better therapy: Learning from the Third World*. But Zafrullah's struggle for the right to health for all people did not go unnoticed by Big Pharma. The German Embassy in Dhaka rejected his visa. The reason given was his allegedly 'hostile' stance towards the German pharmaceutical industry. It needed the help from a German member of parliament to overturn the rejection and in the end Zafrullah arrived just in time for the conference in Bielefeld. One key lesson he presented there was: It is not enough to select essential drugs for the best treatment but one needs to get rid of the irrational drugs – which Bangladesh did quite successfully at that time. Because no drug known to be bad escapes doctors who prescribe it because of aggressive marketing.

At the first People's Health Assembly in 2000 at Gonoshasthaya Kendra – The People's Health Centre in Savar, Bangladesh I had the pleasure not only to be part of the birth of the People's Health Movement but also to see Zafrullah's home base. It was important to him that we not only talk but also see the working and living conditions of the country: poverty, social movements, positive projects and niches of enormous wealth – a live view of the social determinants of health.

We met a few times over the years and I will always remember Zafrullah as a person committed to empowerment as a path to better health and a great inspiration. May he rest in peace.

Dr B Ekbal

I had very close contact with Dr Zafrullah Chowdhury for four decades. I first met him at a conference organised by the Consumers Association of Penang in 1982 where we discussed drugs banned in developed countries being marketed in developing countries. Dr Balasubramanium was also there. Following this conference, mass campaigns were initiated against the marketing of dangerous drugs in several countries especially in countries like Bangladesh, Pakistan and India. Dr Zafrullah cautioned me that along with campaigning against such drugs, we should also demand that Essential Drugs should be made available to the people free or at low cost. He said that if we don't take such a position, the campaign may turn people against all modern medicines. Because of his instruction, when I wrote a book on the topic, I titled it *'Banned, Bannable and Essential Drugs*' and I published the current Essential Drug List of WHO in the book. Dr Zafrullah later published the WHO Model Essential Drugs book in Bengali.

He visited India several times campaigning against dangerous drugs and the need for making essential drugs available to people. Because of the mass action he built up in India, the Government later banned dangerous drugs and was forced to prepare and publish a National List of Essential Drugs. Zafrullah later showed the way to developing countries by establishing the GK Pharmaceuticals and marketed essential drugs at very low cost.

As part of the organising team I was with him when he organised the Peoples Health Assembly in the GK campus in 2000 and formed the Peoples Health Movement Global. He was also closely associated with the Peoples' Science Movement in Kerala (The Kerala Sastra Sahithya Parishad: KSSP) and visited Kerala six times and talked to doctors, medical students and the public on various topics related to public health. He was a great source of inspiration to KSSP activists.

Just after the TRIPS regime was established by WTO, prices of essential drugs shot up in many countries. Before the Ministerial Conference of WTO at Doha in 2001, a meeting of health activists from different countries was held in Amsterdam. Dr Zafrullah, James Love and Carlos Correa prepared a letter to the ministers attending the conference exhorting them to include Compulsory Licensing in the TRIPS protocols. Later Zafrullah and James Love went to Doha and briefed the ministers. And finally, the Doha conference (2001) came out with what is called the Doha flexibilities providing Compulsory Licensing as a proviso in the TRIPS regime.

When I retired as Professor of Neurosurgery from Government service, he asked me to join the GK Medical College and train general surgeons on basic management of health injuries since there was a dearth of neurosurgeons in Bangladesh. But due to various domestic responsibilities I could not join GK. I regret it now. I wanted to meet Zafrullah with HAIAP in Penang and emailed him to check whether he was attending. Meanwhile he was admitted in the hospital, but he sent a reply through his wife saying that he will definitely come to Penang to meet his friends. Unfortunately, he could not make it and departed us within a few days after sending the email. Dr Zafrullah was a great source of inspiration to all of us and his memory will continue to motivate us in all our public health activities.