



Health Action International Asia Pacific (HAIAP)
(in collaboration with USM TWN DMDC IIUM)



Third World Network



IIUM



Garden of Knowledge and Virtue

December 2024

HAI AP News

Penang, Malaysia

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HAI AP Est. 1981

Health Action International (HAI) was formally founded in Geneva in 1981 and coordinated initially from Penang. In 1995 Health Action International Asia Pacific (HAI AP) was formed in the Asia Pacific Region as part of the international collaborative network to increase access to essential medicines and improve their rational use through research excellence and evidence-based advocacy. HAI AP is committed to strive for health for all now in line with the Peoples' Health Charter. *HAI AP News* is the official newsletter of Health Action International – Asia Pacific and presents the happenings in the regional campaigns for more rational and equitable health policies and carries material in support of participants' activities.

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This is a big issue of HAIAP News. There is wide-ranging material associated with WAAW and the One Health approach in Malaysia and Thailand. Thanks to all for their important input.

Both Malaysia and Thailand have produced a comprehensive selection of innovative educational material in their own languages but some are also in English. The Malaysia AMR colouring book is reproduced in this HAIAP News.

We share the TWN MPox timeline, discovery of a new bacteriophage in a Melbourne creek and news of the death of Richard Cash - inventor of ORS.

Roche attacks Indian local production, and the New Zealand Treaty of Waitangi is threatened under the new national government. undermining the health and human rights of the indigenous Māori people.

The people of Palestine continue to suffer oppression and systematic violation of all human rights.

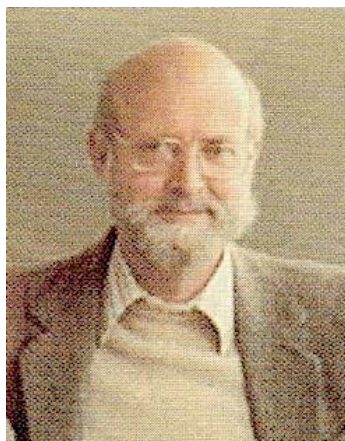
Three important 'days' fall at the beginning of December: World AIDS day; International Day of people with disabilities and International Human Rights Day. We acknowledge and pay tribute to all these 'days'

The call for nominations for the Olle Hansson Award 2025 is open. The Award is in memory of Dr Olle Hansson who was an icon of the activist medical profession and wrote the classic medical investigative exposure - INSIDE CIBA-GEIGY.

HAIAP at 40 can be downloaded free at <https://www.twn.my/title2/books/pdf/HAIAP%20at%2040.pdf>
Hard copies are available free but postage needs to be

Olle Hansson Award 2025

We are announcing the Olle Hansson Award for 2025



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

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 amazing 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 only by words but also 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. The first recipients were Dr Mira Shiva of India and Dr Alfredo Bengzon of the Philippines. Prof Dzulkifli Abdul Razak of USM, Malaysia; and Dr K Balasubramaniam were later recipients. Here is the complete list of recipients:

<https://www.haiasiapacific.org/wp-content/uploads/2024/12/Olle-Hansson-Award-Recipients-to-2023.pdf>

To mark the 40th anniversary of his death, we announce the Olle Hansson Award 2025.

Nominations are invited:

This Award for 2025 recognises the work of an individual from a low or middle income country who has contributed the most to:

1. Promoting the concepts of essential medicines and their rational use, and access to vaccines

2. Increasing the awareness among consumers of the dangers of irrational and hazardous medicinal drugs and unethical marketing.

3. Supporting and promoting health for all and addressing the structural and human rights issues relating to health.

Nominations for the award, which can come from any individual or organization, should contain:

1. A one-page biodata of the candidate (including educational background, positions held, affiliations, honours and awards).

2. A 500-word statement of the nominee's qualities and achievements in the field of medicines' safety and access to essential medicines and their rational use. Please provide:

a. documentation of work done.

b. recent photograph of the nominee.

3. Two referee's names, affiliations and addresses.

Closing Date: Nominations will close on February 28, 2025. Please do not tell nominees that they have been nominated.

World AIDS Day December 1

UNAIDS report shows that upholding human rights is vital for ending the AIDS pandemic

UNAIDS Press Release

<https://www.unaids.org/en/2024-world-aids-day>

Ahead of World AIDS Day (1 December), a new report by UNAIDS showed that the world can meet the agreed goal of ending AIDS as a public health threat by 2030 – but only if leaders protect the human rights of everyone living



with and at risk of HIV. The report's message is summed up in its title: 'Take the rights path to end AIDS'.

'Despite huge progress made in the HIV response, human rights violations are still preventing the world from ending AIDS,' said Winnie Byanyima, ¹

Executive Director of UNAIDS. 'When girls are denied education; when there is impunity for gender-based violence; when people can be arrested for who they are, or who they love; when a visit to health services is dangerous for people because of the community they are from—the result is that people are blocked from being able to access HIV services that are essential to save their lives and to end the AIDS pandemic. To protect everyone's health, we need to protect everyone's rights.'

Of the 39.9 million people living with HIV, 9.3 million people are still not accessing life-saving treatment. Last

¹ Olle Hansson Award recipient 2023

year, 630 000 people died of AIDS-related illnesses, and 1.3 million people around the world newly acquired HIV. In at least 28 countries, the number of new HIV infections is on the rise. To bring down the trajectory of the pandemic, it is imperative that life-saving programs can be reached without fear by all who need them.

Every day in 2023, 570 young women and girls aged between 15 and 24 acquired HIV. In at least 22 countries in eastern and southern Africa, women and girls of this age group are three times more likely to be living with HIV than their male peers.

Criminalisation and stigmatisation of marginalised communities is obstructing access to life-saving HIV services. In the *2021 Political Declaration on Ending HIV and AIDS*, countries committed to ensure that by 2025 less than 10% of countries have restrictive legal and policy frameworks that lead to the denial or limitation of access to HIV services. However, in 2023, 63 countries still criminalise same-sex relations. Laws are hindering the HIV response: Among gay men and other men who have sex with men, HIV prevalence is five times higher in countries that criminalise same-sex relations than in those that do not.

Science continues to innovate against AIDS. Long-acting medicines that only need to be injected a few times a year could tip the scales but only if a human rights approach is taken to share the technology to bring down prices and enable production in every part of the world.

'Medical tools that save lives cannot be treated merely as commodities,' said Alexandra Calmy, HIV lead at the University Hospitals of Geneva. 'The revolutionary therapeutic and preventive options currently being developed must be made accessible without delay to achieve universal reach.'

The report includes ten guest essays from leaders in the global AIDS response including: Elton John; Archbishop of Cape Town, Thabo Makgoba; Irish President, Michael D. Higgins; United Nations High Commissioner for Human Rights, Volker Türk; and former President of the International AIDS Society, Adeeba Kamarulzaman.

Elton John, in his essay in the UNAIDS report, writes, 'I know the feeling of shame and what it can do. As long as HIV is seen as a disease for the 'others', not so-called 'decent people', AIDS will not be beaten. Science, medicine and technology may be the 'what' in ending AIDS, but inclusion, empathy and compassion are the 'how'.'

President Michael D. Higgins, in his essay, writes, 'Ensuring that the fullness of human rights is achieved is

a practical necessity crucial if we are to rid the world of the scourge of AIDS. Fulfilling the pledge to end AIDS as a public health threat is a political and financial choice. The time to choose the correct path is long overdue.'

International Day of People with Disability December 3

The theme for 2024 was: **Amplifying the leadership of persons with disabilities for an inclusive and sustainable future.**

<https://codeblue.galencentre.org/2024/04/has-celebrating-disability-days-brought-any-benefit-to-the-disabled-community-oku-rights-matter-project/>

During the events associated with this day, statements were made by relevant ministries, invariably illustrated by photo-ops of the ministers with persons with disabilities.

These days and events are critical in focusing the nation's attention on the lived experiences of persons with diverse disabilities, and they should continue.

However, It is important to ask what impact have such days had on the rights and support services of the disabled community? Have they galvanised government agencies to enlarge and improve national services for persons with disabilities and the disabled community?

On December 3 The Malaysian Bar reiterated its call for the Government to act decisively by amending Articles 8 and 12 of the Federal Constitution to include 'disability' as a prohibited ground of discrimination.²¹ The omission of disability contradicts Malaysia's obligations under the United Nations Convention on the Rights of Persons with Disabilities (CRPD), ratified in 2010. Such an amendment would not only provide explicit legal protection against discrimination, but also send a powerful message affirming the dignity, rights, and equal worth of persons with disabilities in our society.

In 2022 Dr Amar-Singh HSS, Sharifah Tahir, Yuenwah San, Dr Daniel Leong Han Ming, Ng Lai-Thin, Dr Anthony Chong, Mary Chen, Kaveintran and Meera Samanther wrote in *CodeBlue* | 12 December 2022:

'We must move from services led by non-disabled people to disability-inclusive services led by persons with diverse disabilities.'

<https://codeblue.galencentre.org/2022/12/nothing-about-us-without-us-dr-amar-singh-hss-sharifah-tahir-yuenwah-san-dr-daniel-leong-han-ming-ng-lai-thin-dr-anthony-chong-mary-chen-kaveintran-meera-samanther/>

Malaysia has a long-standing practice of making policy decisions and planning programs for us, persons with disabilities (OKU)³ and care partners — without engaging

² <https://www.malaysianbar.org.my/article/news/press-statements/press-statements/press-release-international-day-of-persons-with-disabilities-2024-amplifying-the-leadership-of-persons-with-disabilities-for-an-inclusive-and-sustainable-future->

³ OKU is the Malay term for Orang Kurang Upaya, which refers to people with disabilities in Malaysia

with us. This practice has yielded poor results that failed to address the real needs of the OKU community. The new unity government has a fresh chance to undo this harmful practice, by proactively and meaningfully engage persons with disabilities and care partners in policy decision-making and programme planning.

'Nothing About Us Without Us' emerged globally in the 1990s, championed by persons with disabilities and allies to underscore the critical importance of our meaningful participation in all decision-making that affects our wellbeing.

Programs and services developed by non-disabled persons for persons with disabilities are based on the view that disability is a problem that must be corrected to make the disabled' as close to 'normal' as possible.

In this view, a disabled person is perceived as lacking the desirable characteristics of a 'normal' person, and is therefore of lesser value and lesser humanity. This devaluing of disabled persons is ableism. Inclusion of persons with disabilities in the fabric of our society will foster inclusion in bridging disparities on all other dimensions of Malaysian society — including gender, ageing, the urban-rural divide, income, and ethnicity.

We call for a change in the outlook and practice of government ministries and agencies, professional bodies, civil society organisations, and disability organisations. To keep pace with progress on other fronts, we must move from services led by non-disabled people to disability-inclusive services led by or co-created with persons with diverse disabilities.

Children and adults with disabilities and care partners have insights based on lived experiences that can guide everyone to design and implement policies and programmes with improved outcomes.

Many more Malaysians need to embrace the principle of 'Nothing About Us Without Us'. Have the courage to acknowledge that partnership with us persons with disabilities and care partners is a strength, not a weakness, nor a threat to professionalism.

The media has a vital role in preventing and calling out ableist attitudes and behaviour. In breaking negative stereotyping, and in sharing respectful, realistic, and meaningful images and stories about persons with disabilities.

We call on Malaysian media practitioners to join us in advocating for a disability-inclusive Malaysia where OKU rights matter. Guidance for the media can be found here.⁴ Inclusion in society is built on acceptance. It is nurtured by the principle of equal and full participation, in which all voices are heard and respected.

⁴ <https://okurightsmatter.com/the-oku-rights-matter-project/>

International Human Rights Day

December 10

Human Rights Day is observed every year on 10 December — the day the UN General Assembly (UNGA) adopted, in 1948, the Universal Declaration of Human Rights (UDHR). This document sets out the fundamental human rights to be universally protected.

The UDHR was a historic achievement, outlining the fundamental rights and freedoms that should be universally protected.

Human Rights Day serves as a reminder of the ongoing struggle for human rights worldwide and the collective responsibility to address issues such as poverty, discrimination, and inequality.

This World Human Rights Day marks 75 years of the UDHR, the landmark document that enshrines the rights of all human beings regardless of race, religion, gender or any other marker. It's a jarring parallel and a stark reminder of reality that 2023 also marks 75 years since the Nakba. The Nakba – meaning 'catastrophe' in Arabic – refers to a period of violence and mass displacement endured by the Palestinian people, and this is still their nightmare today.

Together we have made great progress in advancing human rights. But right now, there are communities around the world enduring attacks on their most basic and essential rights. Despite promising dignity and equality for everyone, the UDHR is under sustained violation. We're witnessing human suffering on a colossal scale in places like Gaza, Sudan and Iran, just to name a few.

<https://www.amnesty.org.au/10-december-world-human-rights-day-75-years-of-human-rights-75-years-of-nakba/>



Feature: 'Together against Antimicrobial Resistance: Educate, Advocate, Act now' November 23, 2024 - Penang

Third World Network, the Ministry of Health (Pejabat Kesihatan Negeri Pulau Pinang, Hospital Pulau Pinang and the Infection Control Unit of the Ministry of Health), the Consumers' Association of Penang and the School of Pharmaceutical Sciences, Universiti Sains Malaysia.

The Way Forward

The World AMR Awareness Week fosters awareness, encourages responsible antimicrobial use, supports global initiatives, and engages communities. By working together, we can combat the threat of AMR and ensure that effective treatments remain available for future generations.

Penang Seminar on AMR

In conjunction with World Antimicrobial resistance Awareness Week (WAAW) in Penang a Seminar '**Together against Antimicrobial Resistance: Educate, Advocate, Act now**' was held on 23 November 2024. It was a collective effort to step up actions against AMR in line with the WAAW theme this year of 'Educate. Advocate. Act now'.

The Seminar was a collaboration between the Third World Network, the Ministry of Health (Pejabat Kesihatan Negeri Pulau Pinang, Hospital Pulau Pinang and the Infection Control Unit of the Ministry of Health), the Consumers' Association of Penang and the School of Pharmaceutical Sciences, Universiti Sains Malaysia.

The objectives were to:

1. Increase public awareness on AMR

Many individuals, healthcare professionals and those involved in livestock husbandry may not fully understand the implications of AMR or the significance of responsible antimicrobial use. This seminar served as a platform to educate the audience about how misuse and overuse of antibiotics contribute to resistance, ultimately compromising the effectiveness of these critical medications.

2. Advocate the responsible use of antimicrobials

Encouraging the responsible use of antimicrobials is vital in combating AMR. The seminar provided an excellent opportunity to share guidelines on appropriate prescribing practices among healthcare providers, emphasizing the importance of prescribing antibiotics only when necessary and ensuring proper dosages and durations.

3. Highlight the One Health Lens

AMR is a health challenge that intersects significantly with the One Health approach, which recognises the interconnectedness of human, animal, and environmental health. The overuse of antibiotics in livestock can promote resistant strains of bacteria that may transfer to

humans through the food chain. Similarly, environmental factors, such as contaminated water sources, can facilitate the spread of resistant microbes.

The Seminar was MCed by Dr Hadzliana Zainal from USM and it began with an overview of AMR and the One Health approach implementation in Malaysia presented by Dato Dr Suresh Kumar Chidambaram, National AMR Coordinator, Ministry of Health Malaysia

Sessions entitled *Whither antibiotics use in agriculture and the veterinary sector?* and *Integrating Environmental Dimensions in AMR Action* provided a clear picture of the interrelationship of all the areas of antimicrobial use.

Dr Niyada Kiatying Angsulee shared experiences of implementing the One Health approach in Thailand.

The participants included clinicians and pharmacists from the public and private sectors, medical and pharmaceutical professional associations, researchers, academics and students, as well as civil society organisations, especially those dedicated to public health advocacy.



AMR One Health approach - an overview

Dato Dr Suresh Kumar Chidambaram National AMR Coordinator Ministry of Health Malaysia

Three scenarios illustrate the situation we are facing:

Scenario 1 - Community Acquired

- Siti - 30-year-old women has pain while passing urine
- She visits a GP
- The GP diagnoses her to have Cystitis and prescribes sulphamethoxazole / trimethoprim (Bactrim)
- After 2 days she goes back to the GP
- 'My symptoms are not now worse, Why?'
- Why didn't the antibiotic work?
- Her urine culture grows *E coli* – resistant to Bactrim

Scenario 2 - Community acquired

- Muthu -50-year-old with diabetes
- Gets admitted to hospital with high grade fever, back pain, pain while passing urine
- Doctor diagnoses him to have Pyelonephritis - infection of the kidney
- Doctor gives him IV ceftriaxone
- His condition worsens and he goes into shock
- He is transferred to ICU
- Blood culture grows – ESBL Klebsiella resistant to ceftriaxone

Scenario 3 – Hospital acquired

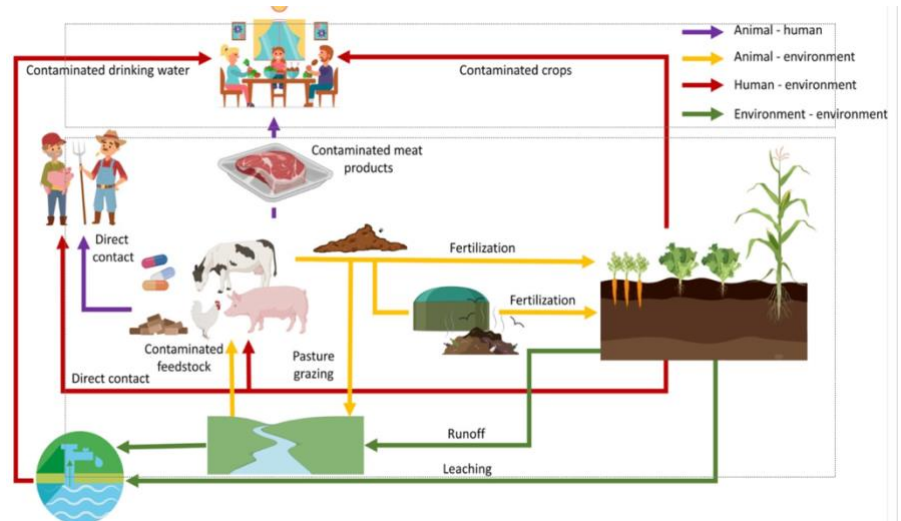
- Ah Chong - 22 year – motor vehicle accident - with multiple fractures
- Several operations and prolonged stay in the hospital
- Develops hospital acquired infection of the fracture site – multi resistant *S Aureus* (MRSA)
- Given antibiotic - vancomycin - develops renal failure
- Poor response to treatment – requires amputation of the left leg

Siti, Muthu and Ah Chong have all been affected by AMR
AMR – is a natural phenomenon

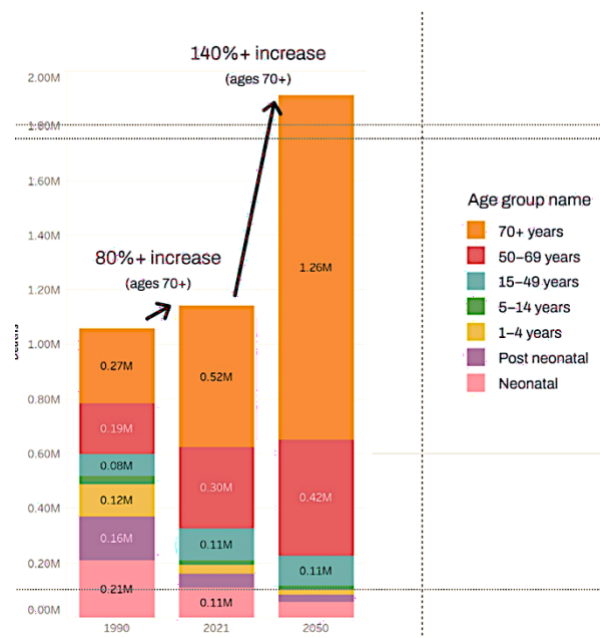
But some things we do are accelerating it.

AMR Journey

- Antibiotics are consumed for a viral fevers – Running nose
- Powerful (broad spectrum) antibiotics are used unnecessarily in hospitals
- Chicken farmers put antibiotics in feed
- Chicken manure is used in cabbage farms
- Pig farm effluents are released into sewers
- Unused antibiotics are thrown into the rubbish bins
- Antibiotic factories release unused products into the sewers



Attributed AMR deaths by age



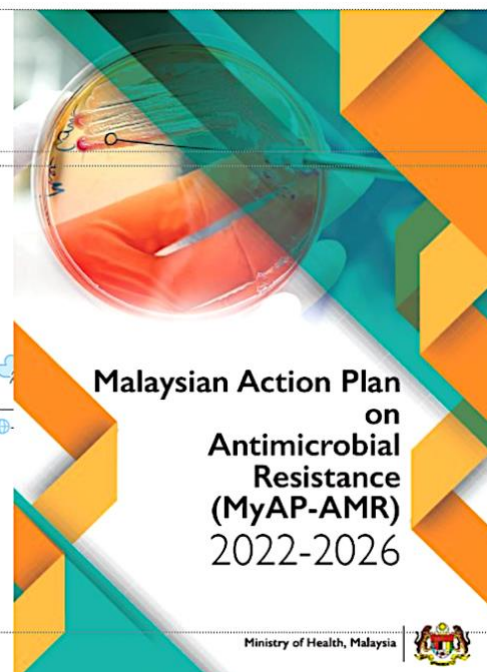
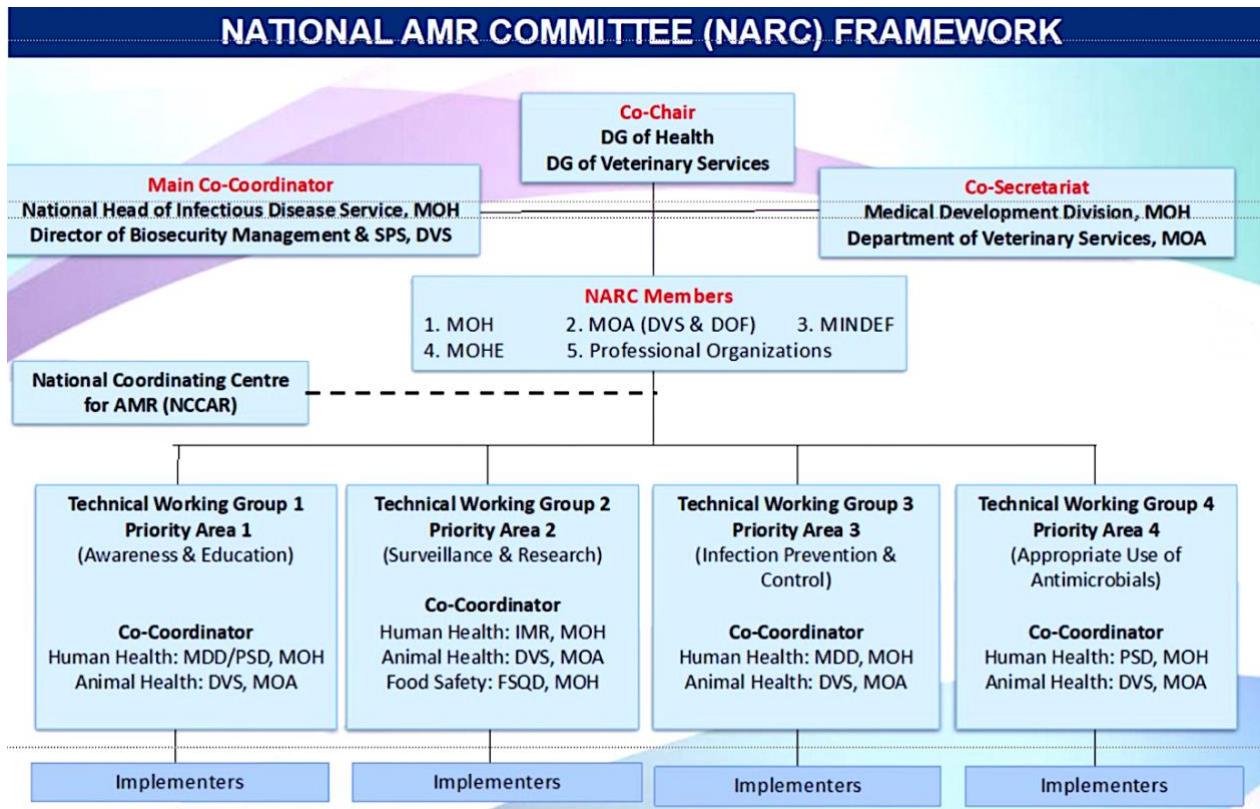
Without a stronger response there will be an estimated average loss of life expectancy of 1.8 years globally by 2035

United Nations - Political Declaration of the High-level Meeting on Antimicrobial Resistance, Sept 2024

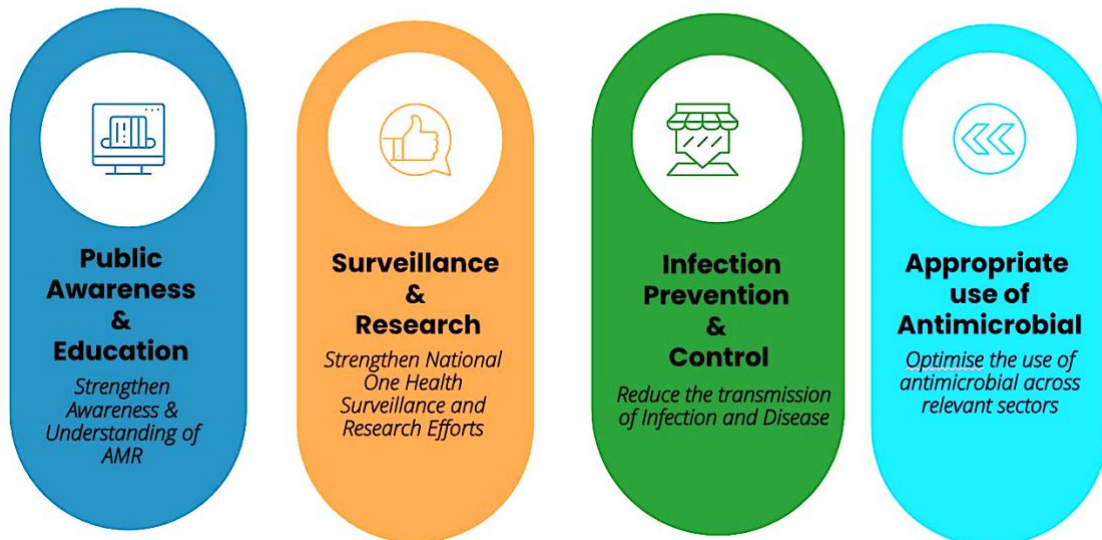
AMR could result in US\$ 1 trillion of additional health-care costs per year by 2050 and US\$ 1 trillion to 3.4 trillion of gross domestic product losses per year by 2030

United Nations - Political Declaration of the High-level Meeting on Antimicrobial Resistance, Sept 2024

Malaysia Response



Malaysian Action Plan on AMR (MyAP-AMR) 2022-2026: Key Priority Areas



- National Health & Morbidity Survey: Antibiotic Use, 2020
- A nationwide community-based cross-sectional study designed using a multistage stratified random sampling method.

3 in 20

Claimed they will buy antibiotics in the pharmacy if it is not prescribed



1 in 3 claimed they will request the antibiotics from doctors if it is not given

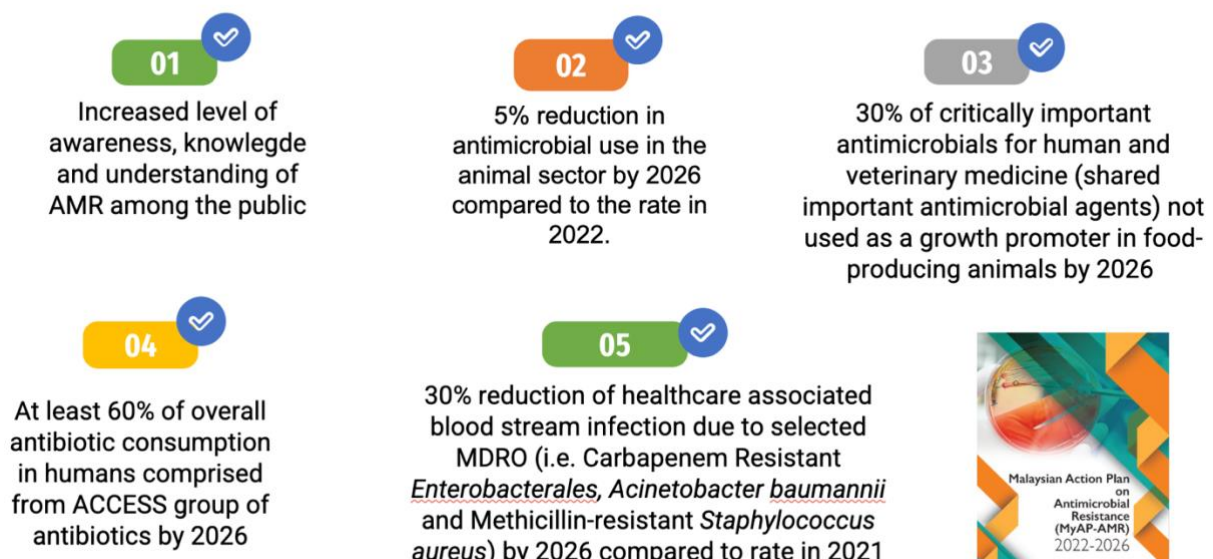
- Seminars and workshops
- Community empowerment programs
- Awareness activities with members of Parliament
- Videos
- Educational material about human and veterinary health

The official portal is



<https://myohar.moh.gov.my/>

Outcome Indicator of MyAP-AMR 2022 - 2026



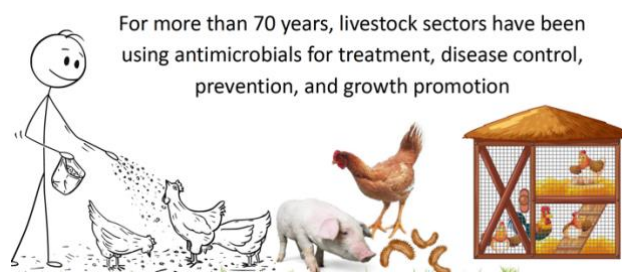
AMR in Agriculture & Environment

Whither Antibiotics Use in Agriculture?

Nur Indah Ahmad (DVM, MVSc, PhD)

Data sources

(Permission was given to access and analyse data obtained from Department of Veterinary Services, Malaysia for MVSc study and thesis-under review of Dr Yusniza Mohd Yusof, 2024)



High levels of antibiotic resistance in isolates from diseased livestock

NA Haulisah, L Hassan, SK Belo, SM Jajere, NI Ahmad. *Frontiers in veterinary science*, 2021 frontiersin.org

Overuse of antimicrobials in livestock health and production beyond therapeutic needs has been highlighted in recent years as one of the major risk factors for the acceleration of antimicrobial resistance (AMR) of bacteria in both humans and animals. While there is an abundance of reports on AMR in clinical isolates from humans, information regarding the patterns of resistance in clinical isolates from animals is scarce. Hence, a situational analysis of AMR based on clinical isolates from a veterinary diagnostic laboratory was performed to examine the extent and patterns of resistance demonstrated by isolates from diseased food animals. Between 2015 and 2017, 241 cases of diseased livestock were received. Clinical specimens from ruminants (cattle, goats and sheep), and non-ruminants (pigs and chicken) were received for culture and sensitivity testing. A total of 701 isolates were recovered from these specimens. From ruminants, *Escherichia coli* ($n = 77$, 19.3%) predominated, followed by *Staphylococcus aureus* ($n = 73$, 18.3%). Antibiotic sensitivity testing (AST) revealed that *E. coli* resistance was highest for penicillin, streptomycin, and neomycin (77–93%). In addition, *S. aureus* was highly resistant to neomycin, followed by streptomycin and ampicillin (68–82%). More than 67% of *E. coli* isolates were multi-drug resistant (MDR) and only 2.6% were susceptible to all the tested antibiotics. Similarly, 65.6% of *S. aureus* isolates were MDR and only 5.5% were susceptible to all tested antibiotics. From non-ruminants, a total of 301 isolates were recovered. *Escherichia coli* ($n = 108$, 35.9%) and *Staphylococcus* spp. ($n = 27$, 9%) were the most frequent isolates obtained. For *E. coli*, the highest resistance was against amoxicillin, erythromycin, tetracycline, and neomycin (95–100%). *Staphylococcus* spp. had a high level of resistance to streptomycin, trimethoprim/sulfamethoxazole, tetracycline and gentamicin (80–100%). The MDR levels of *E. coli* and *Staphylococcus* spp. isolates from non-ruminants were 72.2 and 74.1%, respectively. Significantly higher resistance level were observed among isolates from non-ruminants compared to ruminants for tetracycline, amoxicillin, enrofloxacin, and trimethoprim/sulfamethoxazole.

How resistance develops at farm level

Like humans, farm animals carry bacteria. Animals are often given antibiotics even when they are not sick and the more antibiotics used - the higher the risk of bacteria becoming resistant to them.

Prolonged use of antimicrobial agents in animal husbandry at subtherapeutic doses creates favourable conditions for bacteria to acquire and fix genes that confer resistance, and this has become a significant contributor to the global AMR crisis.

Antimicrobial consumption in food-producing animals in LMICs remains mainly **undocumented**, limiting the ability to establish and monitor progress toward achieving consumption targets. Antimicrobial use was reported to be the highest in swine, followed by chicken and cattle in LMICs, with tetracycline being the most used antimicrobial drug in these respective species per kilogram produced.

Ease of obtaining antibiotics and the difficulty of obtaining quality veterinary and preventive services, encourage the inappropriate and imprudent use of antibiotics.. Information on the dynamic trends between antimicrobial use and resistance has promoted the need for antimicrobial surveillance, which is the basis and reference for the development of policies and practices aimed at the reduction of antimicrobial use.

A study of multi drug resistant *S. Brancaster*⁵ in Malaysian chicken farms provides initial evidence for the occurrence of isolates found to co-harbor various combinations of virulence and resistance genes, indicating a risk of salmonellosis infection among consumers through chicken products and personnel involved in the pre and harvesting phases due to contaminated environments.

The One Health Approach is 'An integrated, unifying approach that aims to sustainably balance and optimise the health of humans, animals, plants and ecosystems.'

⁵ a type of salmonella that has been found in chicken processing environments, wet markets, and chicken meat.

The One Health response recognises the health of humans, domestic and wild animals, plants and the wider environment (including ecosystems) are closely linked and interdependent'

Legislation Enforcement in Malaysia

There is no mandated regulation for importers or wholesalers to report annual veterinary antimicrobial sales data to the authorities, except for animal feed and premixes under the Animal Food Act 2009.

Legislation on the manufacture and sales of antibiotic growth promoters (AGP) and feed additives in Malaysia are under the Feed Act 2009; and Feed Regulations 2012 (Manufacture and Sale of Feed or Feed Additive). Feed additives can contain antimicrobials that are not indicated on the label and this practise is prohibited.



Of listed **WHO Medically Important Antimicrobials**, 7% of products are used in livestock. Tetracycline is the most common antibiotic used in livestock production, locally and globally but 35 WOA member countries reported use of antibiotics as growth promoters; most commonly tylosin, flavophospholipol and bacitracin.

World Organisation of Animal Health (WOAH) regions that showed a decrease were: 9% in the Americas; 6% in Europe and 0.7% in Asia and the Pacific. The region that presented an increase was Africa, with 179%.

In Malaysia between 2018-2021, there was reduction in total sales quantities for antibiotics intended for use in food-producing animals. There was Legislation by Department of Veterinary Services to restrict antibiotic use in food-producing animals in Malaysia, effective from May 1, 2021, that most likely influenced the variation in the trends of antimicrobial sales that were identified.



Strategy on AMR and prudent use of antimicrobials

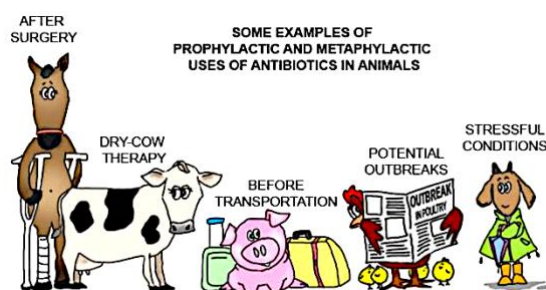
In 2015, in addition to a full review of the standards related to AMR, our Members officially committed during the 83rd General Session to combat AMR and promote the prudent use of antimicrobials in animals³. WOA World Assembly of Delegates stated its full support for the Global Action Plan on AMR. One year later, during the 84th General Session, the World Assembly of Delegates directed WOA to compile and consolidate all the actions to combat AMR into a global Strategy⁴.

The structure of this strategy supports the objectives established in the Global Action Plan, and reflects our mandate as described in our Basic Texts and Strategic Plans, through four main objectives:

- Improve awareness and understanding;
- Strengthen knowledge through surveillance and research;
- Support good governance and capacity building;
- Encourage implementation of international standards.

Since 2022, we have set a monitoring and evaluation system to assess the delivery of our strategy. In parallel, WOA contributes to the monitoring and evaluation of the overall Global Action Plan, in collaboration with the Quadripartite partners.

Striking the right balance together



For farm animals and birds it is crucial that everyone including the consulting veterinarian, feedlot management and staff, nutritionist, and stock feed manufacturer recognises the need to preserve the effectiveness of antimicrobials and that antimicrobial stewardship becomes a priority through formation of a management team to be responsible for developing and implementing an Antimicrobial Stewardship Plan for stock. Compliance with the Antimicrobial Stewardship Plan needs to be monitored and adaptations made as needed to reflect contemporary best practice.

Wherever possible, use preventative measures to reduce the need for medically important antimicrobials without compromising the health and wellbeing of the animals.

Antimicrobial Stewardship Plans should be continually reviewed and improved by ensuring the correct antimicrobial is used for the correct disease / diagnosis and that the antimicrobial is administered correctly (dose, route of administration, duration) and at the correct time. Monitoring these practices over time will help ensure improvements in antimicrobial use patterns, and demonstrate best practice standards to stakeholders, trading partners and consumers.

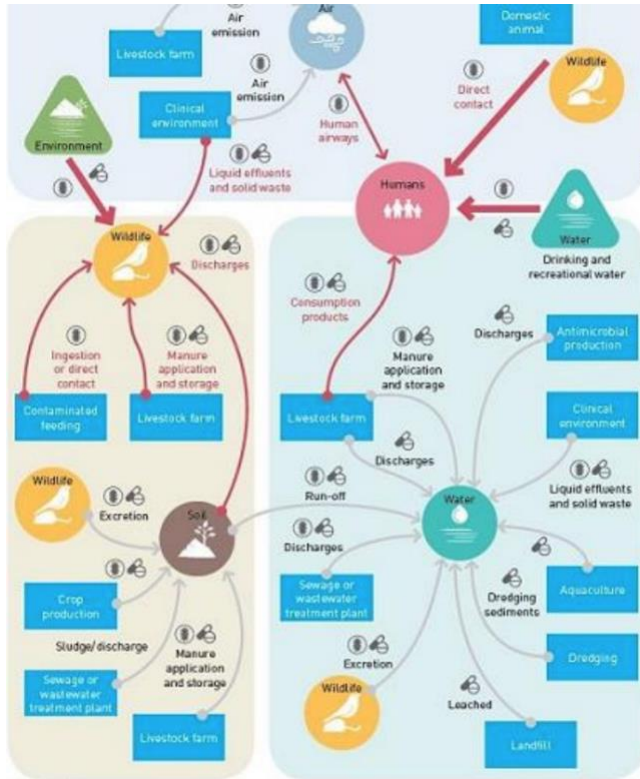
It is always important to consider replacement of a medically important antimicrobial whenever available evidence supports the efficacy and safety of an alternative; again without compromising the health and wellbeing of the animals.

AMR and the environment in Malaysia What do we know do far?

Noor Haza Fazlin Hashim, Ph.D
National Water Research Institute of Malaysia (NAHRIM)
Ministry of Energy Transition and Water Transformation
(PETRA)

Key Issues:

- No authority directly involved in the monitoring
- No standardized method for monitoring the presence of antimicrobial/pathogen
- Too many standards for water quality and different agencies responsible.



The complexities of AMR in Environment

The environment has been one of the key factors for AMR transmission. Major pollution contributors:

- 1) **Pharmaceuticals and other chemical manufacturing**
-antimicrobial residues
- 2) **Effluent and waste from healthcare facilities**
-antimicrobial and resistant microbes
- 3) **Releases, effluent and waste in animal production**
-antimicrobial and resistant microbes
- 4) **Use of antimicrobials and manure in crop production**
-antimicrobial and resistant microbes
- 5) **Poor sanitation, sewage and waste effluent**
-antimicrobial and resistant microbes

Environmental Dimensions of Antimicrobial Resistance Summary for Policymakers, UNEP 2022

ANTIBIOTIC RESIDUALS

Health and the Environment Journal, 2010, Vol. 1, No. 1

Chloramphenicol in Malaysia Waste Water and Its Residues in Animal Husbandaries Products

Marni S.^a, Malintan NT., Faridah I., Mustafa AM.^b

^aVeterinary Public Health Laboratory, Department of Veterinary Services, Bandar Baru Salak Tinggi, Sepang, Selangor
^bFaculty of Medicine, University of Malaya, Kuala Lumpur

Research Article

Antibiotic Resistance of Diverse Bacteria from Aquaculture in Borneo

M. M. Kathleen, L. Samuel, C. Felecia, E. L. Reagan, A. Kasing, M. Lesley, and S. C. Toh

Department of Molecular Biology, Faculty of Resource Science and Technology, Universiti Malaysia Sarawak, 94300 Kota Samarahan, Sarawak, Malaysia

Water Qual Expo Health (2015) 7:319–330
DOI 10.1007/s12403-014-0151-5

ORIGINAL PAPER

Water Pollution and its Impact on the Prevalence of Antibiotic-Resistant *E. coli* and Total Coliform Bacteria: A Study of the Semeniyh River, Peninsular Malaysia

Fawaz Al-Badail · Mohammad Shuhaimi-Othman

Science of the Total Environment 602 (2018) 230–240

Contents lists available at ScienceDirect

Science of the Total Environment

journal homepage: www.elsevier.com/locate/scotenv

Pharmaceuticals residues in selected tropical surface water bodies from Selangor (Malaysia): Occurrence and potential risk assessments

Sarva Mangala Praveena^{a,*}, Siti Norashikin Mohamad Shaifuddin^b, Syazwani Sukiman^c, Fauzan Adzima Mohd Nasir^d, Zanjabila Hanafi^e, Norizah Kamarudin^f, Tengku Hanidza Tengku Ismail^g, Ahmad Zaharin Aris^h

^a Department of Environmental and Occupational Health, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, Serdang, 43400 Selangor, Malaysia
^b Department of Environmental Health and Safety, Faculty of Health Sciences, Universiti Teknologi MARA (UiTM), Perak, Alam Complex, 42300 Bandar Putrajaya, Malaysia
^c Department of Environmental Health, Faculty of Health Sciences, Universiti Teknologi MARA (UiTM), Perak, Alam Complex, 42300 Bandar Putrajaya, Malaysia
^d Department of Environmental Health, Faculty of Health Sciences, Universiti Teknologi MARA (UiTM), Perak, Alam Complex, 42300 Bandar Putrajaya, Malaysia
^e Department of Environmental Health, Faculty of Health Sciences, Universiti Teknologi MARA (UiTM), Perak, Alam Complex, 42300 Bandar Putrajaya, Malaysia
^f Department of Environmental Health, Faculty of Health Sciences, Universiti Teknologi MARA (UiTM), Perak, Alam Complex, 42300 Bandar Putrajaya, Malaysia
^g Department of Environmental Health, Faculty of Health Sciences, Universiti Teknologi MARA (UiTM), Perak, Alam Complex, 42300 Bandar Putrajaya, Malaysia
^h Department of Environmental Health, Faculty of Health Sciences, Universiti Teknologi MARA (UiTM), Perak, Alam Complex, 42300 Bandar Putrajaya, Malaysia

Occurrence and potential human health risk of pharmaceutical residues in drinking water from Putrajaya (Malaysia)

Sarva Mangala Praveena^{a,*}, Maizatul Zaharah Mohd Rashid^b, Fauzan Adzima Mohd Nasir^c, Wee Sze Yee^d, Ahmad Zaharin Aris^e

^a Department of Environmental and Occupational Health, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, 43400 UPM, Serdang, Selangor, Malaysia
^b Department of Environmental Sciences, Faculty of Environmental Studies, Universiti Putra Malaysia, 43400 UPM, Serdang, Selangor, Malaysia
^c Department of Environmental Sciences, Faculty of Environmental Studies, Universiti Putra Malaysia, 43400 UPM, Serdang, Selangor, Malaysia
^d Department of Environmental Sciences, Faculty of Environmental Studies, Universiti Putra Malaysia, 43400 UPM, Serdang, Selangor, Malaysia
^e Department of Environmental Sciences, Faculty of Environmental Studies, Universiti Putra Malaysia, 43400 UPM, Serdang, Selangor, Malaysia

RESISTANT MICROBES



Article

Occurrence and Characteristics of Extended-Spectrum β -Lactamase-Producing *Escherichia coli* from Dairy Cattle, Milk, and Farm Environments in Peninsular Malaysia

Emelia Aini Kamaruzzaman¹, Saleha Abdul Aziz^{1,*}, Asinamai Athliamai Bitrus^{1,2}, Zunita Zakaria^{1,3} and Latiffah Hassan⁴

Prevalence and Diversity of Antibiotic Resistant *Escherichia coli* From Anthropogenic-Impacted Larut River

Chui Wei Bong^{1,2*}, Kyle Young Low^{2,3}, Lay Ching Chai^{1,2} and Choon Weng Lee^{1,2}

¹ Institute of Biological Sciences, Universiti Malaysia, Kuala Lumpur, Malaysia, ² Institute of Ocean and Earth Sciences (IOES), Universiti Malaysia, Kuala Lumpur, Malaysia, ³ Institute for Advanced Studies, Universiti Malaysia, Kuala Lumpur, Malaysia

Malaysian Applied Biology (2023) 52(2): 1-11
<https://doi.org/10.55230/mabjournal.v52i2.2520>

Research Article

Water Quality Analysis and The Occurrence of Antibiotic-Resistant Bacteria (ARB) From Satow Waterfall in Bau, Malaysian Borneo

Khairunnisa Mohammad Hamdi^{1*}, Samuel Lihan¹, Stanley Sait¹, Scholastica Ramih¹, Nur Azzah Osman¹, Nur Nazifah Mohamad¹, Tay Meng Guan², Fazia Mohamad Sinang² and Hashimatul Fatma Hashim²

Journal of Hazardous Materials 405 (2021) 124607



Contents lists available at ScienceDirect

Journal of Hazardous Materials

journal homepage: www.elsevier.com/locate/jhazmat



Multidrug-resistant bacteria and microbial communities in a river estuary with fragmented suburban waste management

Jia Yee Ho^{a,*}, Mui-Choo Jong^{b,1}, Kishor Acharya^b, Sylvia Sue Xian Liew^a, Daniel R. Smith^a, Zainura Zainon Noor^a, Michaela L. Goodson^a, David Werner^a, David W. Graham^a, Jeyanthi Eswaran^{b,c}



WHY *E. coli* ??

E. coli is a faecal contamination indicator monitored in most water quality standards procedures. It is listed on the critical pathogen list for AMR (WHO) and it is common in humans and animals.

- Regional benchmarking workshop on AMR surveillance in human health, animal health and environment sectors .
- International collaboration surveillance projects.

Tricycle Protocol

The One Health dimension of AMR is well known; however, data are lacking on the circulation of resistance-conferring genes, particularly in low-income countries. In 2017, WHO proposed a protocol called Tricycle, focusing on extended-spectrum β -lactamase (ESBL)-*Escherichia coli* surveillance in the three sectors (humans, animals, and the environment). when feasible, to gain a better understanding of the interconnectedness between human, animal and environment sectors and antimicrobial resistance genes.

The **Tricycle Protocol** is upscaling to develop national monitoring, for detection of carbapenemase producer *e.coli* and enterobacterales (cpe) and whole genome sequencing pipelines as part of '**One Health Surveillance**' throughout the whole waste water management system in Malaysia as well as the open water sources.

Waste water management in Malaysia

Maintaining the functionality of Sewage Treatment Plants (STPs) and Network Pump Stations (NPSs) is not merely a responsibility towards efficient wastewater management, but also a critical step in protecting the environment and public health.

Apart from what is flushed down the toilet or rinsed down the drain, wastewater may come from stormwater runoff,



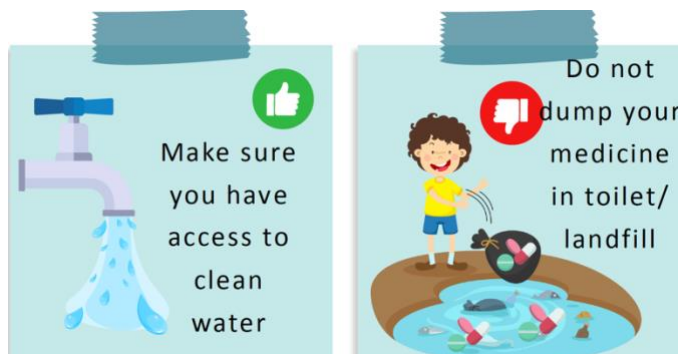
Solutions to Reduce the AMR Burden in the Environment

1. Enhance Environmental Governance, Planning and Regulatory Frameworks
2. Creating Awareness: seminars, educational events, community awareness programs, collaboration with community leaders,
- 3 Multisectoral collaboration
 - Strengthening collaboration for integrated surveillance with Kementerian Kesihatan Malaysia (KKM) dan Kementerian, Pertanian dan Keterjaminan Makanan (KPKM) using ONE HEALTH concept;
 - Participation in awareness campaign/ seminar;

agricultural and industrial sources. Sustainable management of wastewater and water resources is a top priority. Wastewater travels through some 22,000 kilometres of sewer pipes throughout Peninsular Malaysia and Labuan, covering 8,874 Sewage Treatment Plants (STPs) and Network Pump Stations (NPSs).

See:

https://www.malaysiakini.com/sustainability/690889#google_vignette



Implementing the One Health approach in Thailand

Niyada Kiatying-Angsulee

Drug System Monitoring and Development Center, CUSRI – Chulalongkorn University
23 November 2024

The complete presentation is here

<https://www.haiasiapacific.org/wp-content/uploads/2024/12/AMR-Thailand-NK-23Nov24-Red.pdf>

Contents

The AMR Situation in Thailand

Journey of the AMR movement:

Antibiotic Smart Use Project as one pioneer

Policy Formation from all angles

Thai Second AMR National Action Plan – One Health Approach

Examples of CSO initiative

My observations

After recognising the problems, the Journey from problems to solutions began.

Although AMR threats in the country were recognised no designated integrated organization. The following initiatives were implemented

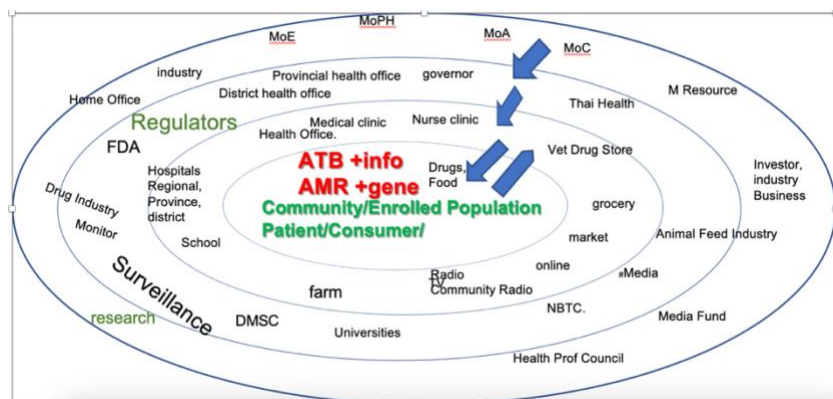
- 2007-2012 ASU (Antibiotic Smart Use Project) (Academia+Government. This project was described in detail in HAIAP News in December 2023 <https://www.haiasiapacific.org/wp-content/uploads/2023/12/HAIAPNewsDec2023.p>
- 2013 first Antibiotics Awareness Day (DMDC and allies)

- 2014 National Consultative meeting with stakeholders (Gov)
- 2015 National Health Assembly Resolution (Proposed by DMDC and allies) CSO/Academic
- 2016 First National Strategy on AMR (2017-2021) extend to 2022
- 2023 Second National Action Plan (2023-2027) Gov+Academic/CSO

Map of the Ecosystem of AMR Stakeholders

The **Antibiotic Smart Use** program was set up in 3 phases (I = 2007 test, II = 2008 expand, III = 2012 country scale up) and demonstrated the following features:

- Bottom-up approach (3 levels – individual, organisation, policy levels)
- Multilevel and Multifaceted interventions
- Decentralized collaborative network
- Sustainability
- Policy support
- Institutionalisation
- Leadership support
- Staff involvement in the hospitals
- Partnership
- Community participation.



The Annual National Forum on Antimicrobial Resistance was a technical platform to update stakeholders, and to share different approaches for M&E on AMR program implementation.

Thailand One Health Dashboard on Antimicrobial Resistance

This dashboard at <https://www.thaiamrwatch.net>

provides data on monitoring and evaluation of AMR policies (AM consumption, AMR stats, AMR knowledge and awareness) including a Resistance Map (AMR, Resistance Index) and details of the M and E National System (Surveillance, National Survey)

(The dashboard is really worth a look - an extremely valuable comprehensive resource: Ed)

Mid Term Review -

Led to Thailand's Second National Action Plan on Antimicrobial Resistance 2023-2027

Strategy

1. Surveillance
2. Human Regulation
3. Health Facility and Stewardship
4. Agriculture
5. AMR literacy
6. Coordination

Core concepts underlying drafting

- Evidence and fact-based approach
- One health approach
- Governance approach
- Implementation strategy
- Monitor and evaluation

CSO and Academia initiatives on AMR

The plan built on 10 years work on AMR of the involved allies resulting in integration with a bottom up response to AMR.

The Strategic approach for AMR linked dedicated persons or organisations into the network with Government and NGO collaboration resulting in the integrated approach and evidence based support. The work has been continuous with the platform for action the National Health Assembly. International collaboration has developed. A feature of the program has been targeting children using arts or culture. Support comes from Thai Health together with WHO ReAct and other international activists on AMR.

Documenting AMR and the antibiotic use situation in the Thailand Report 2010

Holding World Antimicrobial resistance Awareness Week (WAAW) since 2013

- Using this week to launch Children booklets: *Kookkai catches a cold* (bilingual version) *Krajib has diarrhoea* (Thai version)
- Using the week as a mirror for self observation to check treatment of upper respiratory infections (bacteria or virus) at pharmacies and health centres
- Research and development (Project on ARI without antibiotics at National Children Health Hospital)
- Support of the scale up of ASU project
- Community AMR projects
- Testing for antimicrobials in meat.
- Writing Review articles

My Summary Observations:

Political Support has been good (policy competing and high-level visibility)

The National Governance Mechanism has functioned well (Long term plan, Structure, HR, finance) National AMR Board + Secretariat.

The whole effort has been well orchestrated as a complex adaptive system.

The One Health Approach with Interdisciplinary approaches has been maintained.

Monitoring and evaluation (Surveillance, Data and R&D) has been undertaken in a timely manner.

Technical support (WHO CCS, Research) has been adequate.

Community service organisations (CSOs and public awareness campaigns) have been empowered.

Hygiene, Health Promotion, Risk prevention have been a continuing feature of the movement.

AMR Champions (dedicated, and passionate) have facilitated all aspects of the program.

Policy Formation has come from all angles.

Thai Second AMR National Action Plan – One Health Approach - built on the first plan well.

Aspects of the program provide very good examples of CSO initiatives.

Antimicrobial Resistance in Thailand

<https://www.who.int/thailand/news/detail/14-06-2024-thailand-sounds-the-alarm-on-antimicrobial-resistance>

What follows are examples of Malaysian educational material in English.

There is also a very comprehensive range of materials in Malay language

PHARMACEUTICAL INDUSTRY

What We Can Do ?

- Ensure the safety, efficacy and quality of their antimicrobials, and adhere to GMP
- Obtain marketing authorisation and comply with the codes of advertising
- Only use officially authorised distribution systems for the marketing and export of veterinary medicinal products
- Cooperate with the competent authorities, share detailed sales data for the monitoring of antimicrobial use & surveillance of AMR
- Highlight the risk of AMR and the need for responsible and prudent use
- Participate in training on the prudent and responsible use of antimicrobials
- Contribute to research to help combat AMR, prioritise & focus on developing alternatives to antimicrobials

ANIMAL FEED MANUFACTURES

What We Can Do ?

- Be approved for the manufacture of medicated feed & follow all legal requirements
- Only use approved sources of veterinary medicines
- Avoid contamination with harmful agents & prevent contamination of non-medicated feed
- Implement best manufacturing practices for optimal hygiene and appropriate mixing to guarantee the homogeneity of antimicrobials in the feed
- Only supply to farmers following a veterinary prescription & ensure appropriate labelling
- Keep appropriate records to allow traceability
- Cooperate with the competent authorities, share sales & distribution data for monitoring of antimicrobial use

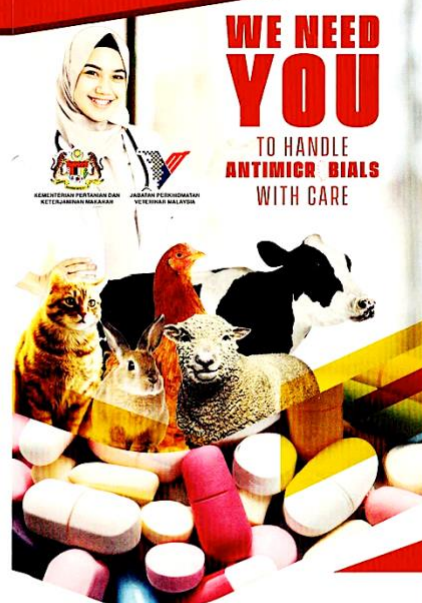
FOR ANY ENQUIRIES

PLEASE CONTACT

Secretariat
National Antimicrobial Resistance Committee (NARC)
of Animal Health
AMR Management Unit,
Food Safety of Animal-Based Products Section,
Veterinary Public Health Division
Department of Veterinary Services,
Ministry of Agriculture and Food Security,
Wisma Pertanian, Blok Podium, Lot 461,
Precinct 4, Pusat Pentadbiran Kerajaan Persekutuan,
62680 Putrajaya
Tel : 03-88702151/2021 | Fax : 03-88885755

4 STRATEGIC OBJECTIVE OF GLOBAL ACTION PLAN

-  Strengthen awareness and understanding of AMR
-  Strengthen National One Health Surveillance and Research Efforts
-  Strengthen infection prevention and control strategies across relevant sectors
-  Optimize the use of antimicrobials across relevant sectors



**WE NEED
YOU**
TO HANDLE
ANTIMICROBIALS
WITH CARE

**ANTIMICROBIAL
RESISTANCE
IN ANIMAL
(AMR)**



#AntiMicrobialResistance #AMR

WHAT IS ANTIMICROBIAL RESISTANCE (AMR)

INTRODUCTION

Antimicrobial agents: medicines used to treat infections, particularly those of bacterial origin. These medicines are essential to protect:

- Human & Animal Health, as well as human welfare

Excessive or inappropriate use can lead to the emergence of resistant bacteria which do not respond to antibiotic treatment, as seen in recent decades.

This phenomenon, called **antimicrobial resistance (AMR)**, which poses a **threat** to disease control throughout the world, primary concern for human and animal health

(ONE HEALTH APPROACH)



"WE NEED YOU TO ACT NOW TO PRESERVE
ANTIMICROBIAL EFFICACY FOR TOMORROW"



**ONLY USE ANTIBIOTICS
ON VETERINARY PRESCRIPTION**

**TO HANDLE
ANTIMICROBIALS
WITH CARE**

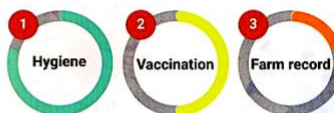
LET'S ACT TOGETHER



VETERINARIANS

What We Can Do ?

- Only prescribe if necessary
- Test bacterial sensitivity
- Raise awareness among animal owners
- Encourage Good practices



- Keep your knowledge up to date on AMR

FARMERS AND ANIMAL OWNERS

What We Can Do ?

- Only use antibiotics prescribed by veterinarians
- Respect the treatment dose and duration
- Always procure antibiotics from authorised sources
- Prevent infections by following good practices
- Keep records of antibiotics administered



The Invincible Microbe and the Last Battle for Earth

Educational coloring book about antimicrobial resistance



What you need to know

Antimicrobial resistance (AMR) happens when bacteria, fungi, and parasites become resistant to medicines that once treated infections. This makes common treatments like antibiotics less effective, leading to longer illnesses, more severe health problems, and even death.

In Malaysia, as in many other countries, overuse and misuse of antibiotics is a serious issue. For example, many people use antibiotics for viral infections like the common cold, which antibiotics cannot cure. Every time antibiotics are used incorrectly, it gives bacteria more chances to evolve and resist the medicine.

**It's estimated that by 2050,
AMR could cause 10 million deaths
annually if no action is taken*.**

In 2019 bacterial AMR was already directly responsible for 1.27 million and contributed to 4.95 million deaths globally**.

*O'Neill, J. (2016). Tackling Drug-Resistant Infections Globally: Final Report and Recommendations. Review on Antimicrobial Resistance. London: Wellcome Trust
**Antimicrobial Resistance Collaborators (2022). Global burden of bacterial antimicrobial resistance in 2019: a systematic analysis. Lancet.

How you can help:

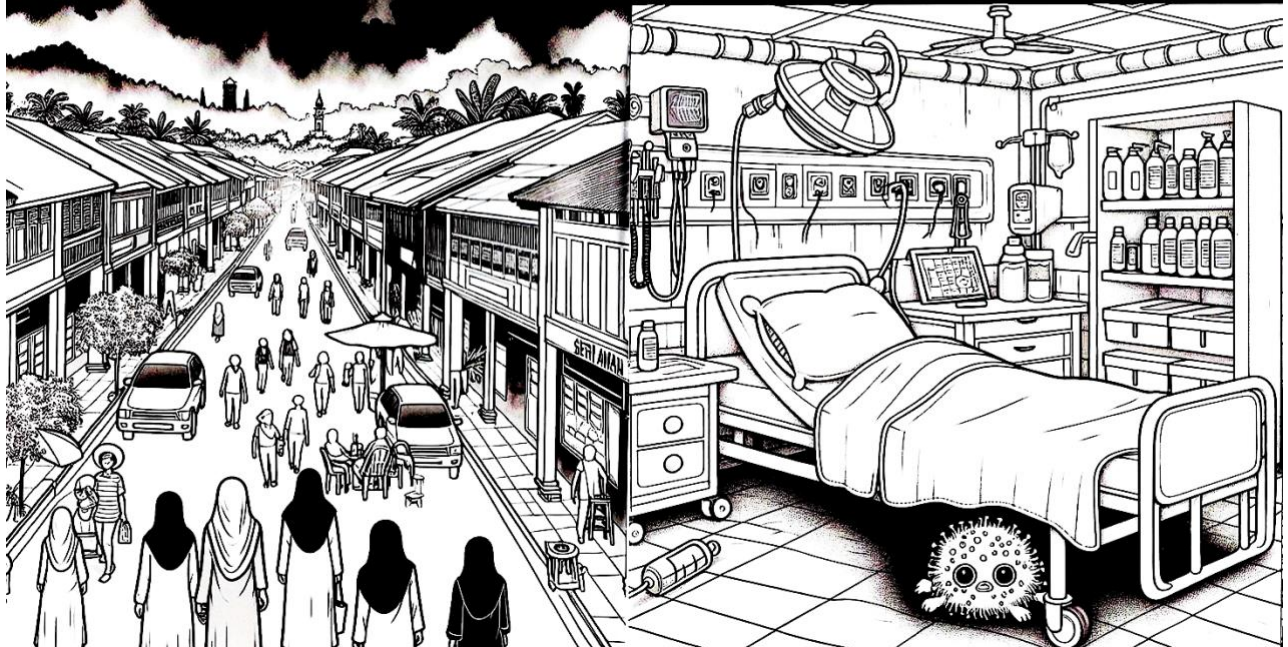
- 1 Use antibiotics only when prescribed by a health care professional. If the doctor says antibiotics are not necessary – trust your doctor.
- 2 Follow the treatment exactly as prescribed, even if you or your children feel better.
- 3 Don't share antibiotics with others or use leftover antibiotics.
- 4 Practice good hygiene: wash your hands regularly, prepare food safely, and stay up to date with vaccinations.
- 5 Support Government of Malaysia and WHO's efforts to combat AMR by raising awareness and promoting responsible use of antibiotics.

**Together, we can protect ourselves
and future generations from the
dangers of antimicrobial resistance.**

In the peaceful town of Seri Aman, people had long forgotten what it was like to be afraid of diseases. Modern antibiotics had conquered almost every illness, and doctors no longer worried about simple infections.

Hidden in the forgotten corners was a monster called X-Prime, a microbe that had been quietly growing stronger.

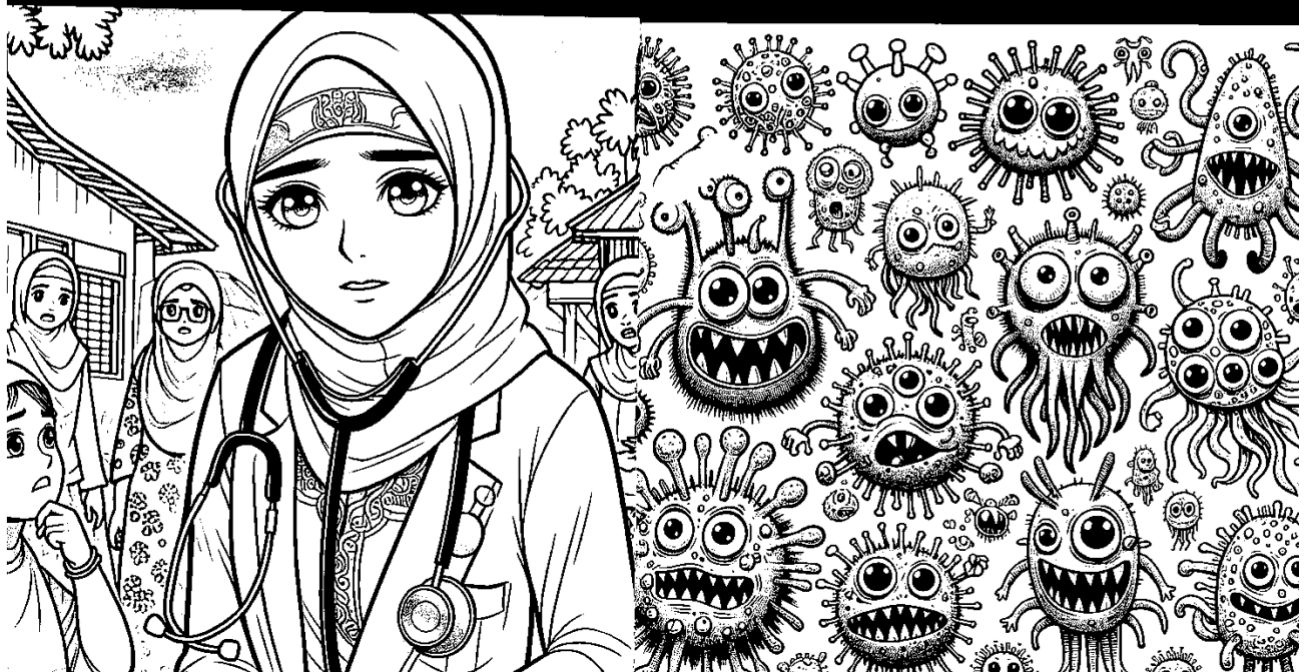
It watched as humans constantly misused antibiotics, taking them for the smallest coughs and colds, even when they weren't needed at all. With each misuse, X-Prime learned, adapted, and mutated.



Seri Aman's most trusted physician, Dr Zara, started noticing strange cases. Cuts that wouldn't heal and coughs that turned into deadly infections. No matter what antibiotics she prescribed, nothing worked. Soon, the people of Seri Aman realized they were against something serious, which they couldn't control with antibiotics.

X-Prime started spreading faster and faster. It moved from person to person, invisible but deadly, growing stronger with every failed treatment.

The more people tried to fight it, the more powerful it became, until even the strongest antibiotics no longer worked.

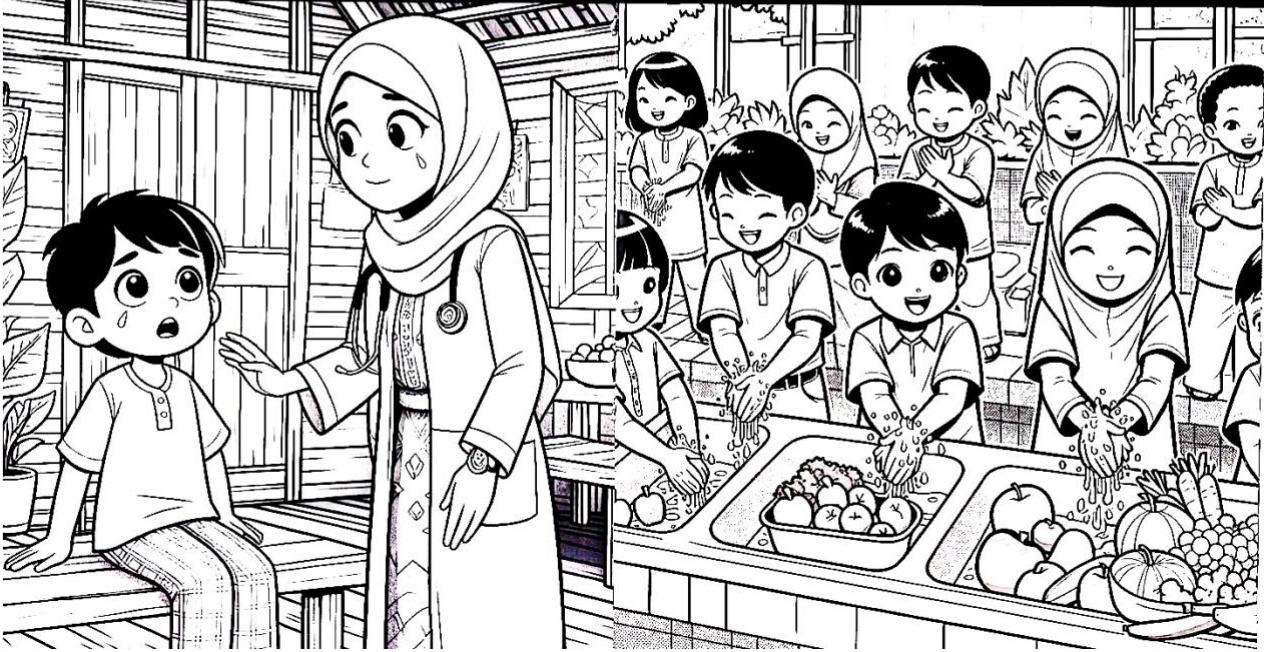


Dr Zara gathered the people of Seri Aman and warned them:
 "This microbe is unstoppable because we've helped it evolve. Every time we've used antibiotics without care, it's learned our tricks. Now, it's stronger than ever."

"But what do we do?" asked Amin, a young boy whose sister had fallen ill.

"We have to change the way we fight," Dr Zara said.

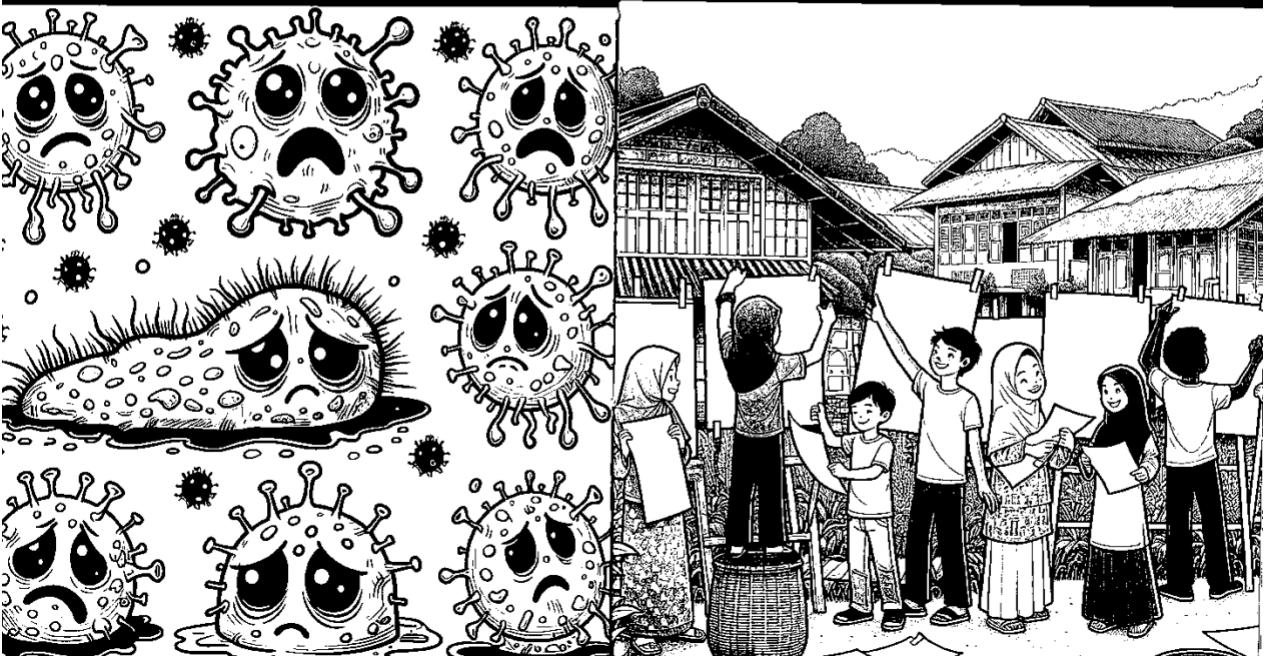
"We must use antibiotics only when they're truly needed. And we must prevent infections by adopting simple practices like, washing our hands, eating healthy food, following vaccination calendar and being active."



The people of Seri Aman started acting on the advice, washing their hands regularly and avoiding unnecessary antibiotics. They ate more fruits and vegetables and played more sports to stay healthy and strong.

Slowly, X-Prime began to lose its power, and its toxic grip weakened with every good decision of the community.

Dr. Zara reminded children: "The battle against X-Prime will never be truly over. If we slip up, it will grow stronger again. But together, we can keep it from becoming invincible."



Challenges in aligning Standard Treatment Guidelines and Essential Medicines Lists

Experience from the Therapeutic Guidelines Partnership Program

Mieke Hutchinson-Kern, Rob Moulds. Therapeutic Guidelines.

Therapeutic Guidelines is an independent not-for-profit organisation in Australia which publishes *Therapeutic Guidelines*. Our Partnership Program provides support to our near neighbours among the Pacific Island Countries to develop and update local standard treatment guidelines and align these with their national Essential Medicines List.

Essential Medicines Lists (EMLs) and Standard Treatment Guidelines (STGs) are two related, but independent, strategies promoted by the World Health Organisation (WHO) to improve the quality of healthcare. Both EMLs and STGs have economic and health benefits through improving the consistency and quality of healthcare practice.

Logically, the EML and STGs within a country should be closely linked. There is little point in STGs recommending the use of a medicine that is not available on the EML. Similarly, there is little point in having a medicine on the EML if its use is not recommended in relevant STGs. However, the processes for writing and updating STGs are quite different from the processes of maintaining the EML.

STGs are focussed on promoting best practice for the management of particular diseases or conditions with consideration of the local context, including the availability of resources such as diagnostics and medicines. STGs may also include advice on how to manage patients with specific clinical circumstances, such a patient with an allergy to the first line treatment or a patient with a common comorbidity.

The process of adding a medicine to the essential list generally requires an assessment of efficacy, safety and cost-effectiveness. However, the committee responsible for the EML must also consider financing and supply issues. This requires navigating the competing demands of increased medicines usage and more expensive medicines – driven by expansion of clinical services requiring newer (and more expensive medicines), increased health service usage, and global supply chain constraints – and limited financial resources. While some newer treatments may have benefits which offset their increased costs, such as improved efficacy or reduced need for monitoring, savings elsewhere in the healthcare system are not usually reflected back into the medicines budget.

In our experience working with small, resource-constrained countries there is a clear tension between promoting best practice in treatments and the financial

constraints on adding recommended medicines to the EML. However, the process to develop or update treatment guidelines provides an opportunity to critically review the existing therapies on the EML and consider whether newer treatments may offer clinical and/or economic advantages over the products on the list. The list needs to be updated to match the latest treatments recommended in the STGs.

At the same time we have found it helpful to identify potential changes to the EML as early as possible in the process of developing or updating STGs. This practice allows time to assess the likely usage, costs and possible cost-offsets.

It is not acceptable for the treatment working group and the EML development group to work in isolation of each other. Ideally the group members should overlap.

The price of many newer treatments reduces over time and older therapies may become more expensive or more difficult to access as they fall out of favour globally. If the price of a proposed addition to the EML is likely to be unaffordable, knowing this as early as possible in the process of writing or updating treatment guidelines, means that the treatment guidelines working group can recommend an alternative treatment rather than a treatment that will not be available.

Aligning STGs and EMLs is important but can be challenging. We would welcome hearing from others about their experiences and strategies for linking Standard Treatment Guidelines and Essential Medicines Lists.



The purpose of the Partnership Program is to support the quality use of medicines and the development and distribution of treatment guidelines in low resource settings, usually in low- and middle-income countries.

We do this by working in partnership with government bodies, universities, and other local and international organisations to support and build local capacity in guideline development, guideline implementation and other quality use of medicine activities.

History

Ever since its establishment over 20 years ago, Therapeutic Guidelines has assisted other countries. This was mainly by providing free copies of guidelines and giving permission for Therapeutic Guidelines products to be adapted free of charge for local use in low resource settings. In 2006, these activities were consolidated into the Developing Countries Program; the Visiting Editor Program was launched the following year.

Since 2016, the program has been funded by the Therapeutic Guidelines Foundation. This enabled the appointment of dedicated staff and the expansion of activities. We are now named the Partnership Program to better reflect our collaborative approach and focus on long-term outcomes.

<https://www.tg.org.au/the-organisation/partnership-program/>

M Pox timeline

TWN and Health Equity

https://www.haiasiapacific.org/wp-content/uploads/2024/12/2024_Charting-Mpox-Timeline.pdf

This timeline is a supplementary resource to TWN's podcast Health Equity in Focus episode - *Mpox's Lessons on Pandemic Preparedness*. It provides a detailed visual representation of the emergence and trend of infections caused by the mpox virus and its different clades worldwide, focusing on the most recent outbreaks in 2022 and 2024. It also documents the deployment of mpox medical counter-measures (vaccines, therapeutics and diagnostics) during this time frame. This exercise allowed us to see that Africa lived with gradually increasing cases and wider outbreaks of mpox through many years. However, mpox only captured the world's attention and concern after human-to-human transmission was verified, particularly after deadlier virus variants appeared and the virus arrived in Northern countries.

This neglect is evident in the limited information on mpox, limited research and development of counter-measures, delays in regulatory approvals, and significant disparities in access to these measures between countries. While Africa has historically borne the brunt of the mpox burden, the timeline underscores the glaring inequalities in access to medical counter-measures, even as the global response accelerates. We have made every effort to provide the most recent and accurate information while consolidating and prioritizing so this timeline is not exhaustive. We used as source formal publications from WHO and other agencies, but also complemented it with academic sources, civil society studies and media reports. However, as the mpox response continues to evolve, this timeline may not fully reflect the latest developments. Please bear these limitations in mind when using this resource.

See the timeline here

https://www.haiasiapacific.org/wp-content/uploads/2024/12/2024_Charting-Mpox-Timeline.pdf

Natural bacteriophage discovered in Melbourne's Merri Creek 2024

Here is a story about a recently discovered natural bacteriophage (*The Merri Creek runs beside the group of houses where I live - Beverley Snell*)

<https://www.theage.com.au/environment/conservation/virus-lurking-in-merri-creek-is-a-slick-superbug-killer-that-could-save-millions-20241104-p5knn1.html>

The Age November 6, 2024 by Bianca Hall

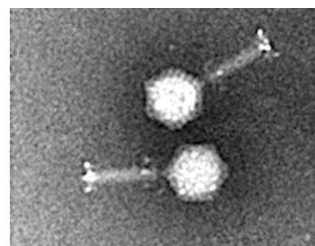
Deep in the Merri Creek, which twists 70 kilometres through Melbourne's northern suburbs, lurks a virus bacteriophage, which preys on bacteria and replicates

within and has the potential to eventually save millions of human lives.

Professor Trevor Lithgow and researchers from Monash University, working in partnership with the Wurundjeri Woi Wurrung Cultural Heritage Aboriginal Corporation, have discovered in Merri Creek water a previously unknown bacteriophage, which kills a common superbug- *Klebsiella* - found in hospitals worldwide.

Professor Trevor Lithgow, the lead on the Monash University research team, explained that bacteriophages – informally known as phages – only infect bacteria, and most only target one form of bacteria.

Researchers took a water sample from the creek in Coburg North and tested it to establish whether there was phage in the creek.



An electron microscopy of the "dangerous Merri lurker", which can kill the hospital bug *Klebsiella*.

Credit: Trevor Lithgow

Klebsiella, is increasingly resistant to antibiotics and can cause pneumonia, wound infections and meningitis in patients it infects. Lithgow said:

'The *Klebsiella* we were using as the bait to try to find a phage is one that's isolated from patients at The Alfred hospital,'

'We know that there are people in Melbourne that have this *Klebsiella*, and people are in the hospital because they're suffering with that bacterial infection.' Researchers considered finding a phage that targets *Klebsiella* a 'high-value target'.

'Normally, the people who would do the phage hunting for The Alfred would go to The Alfred hospital's waste water tanks, and they would try and fish the phage from there, which is a dirty, filthy procedure, and you have to be covered like a CSI investigator in order to get amongst it and not get sick,'

Lithgow and his team took a different approach. '[We asked], would there be more diversity if we went, as it were, into the wild to try and find phage that would kill this hospital-type *Klebsiella*,' he said.

Wurundjeri traditional elders were aware of this organism and called the bug - which was the *Klebsiella*-killing bacteriophage - *Merri-merri-uth nyilam marra-natj* (MMNM), which translates as 'dangerous Merri lurker' in English.

Phages were first used as treatment more than a century ago, but the emergence of antibiotics meant phage therapy was all but abandoned in much of the world. The

rise of antibiotic-resistant superbugs has, however, prompted renewed interest in phage therapy.

Australian Medical Association vice president Julian Rait said the team's research was exciting. 'We knew there were some interesting things in the Merri Creek, but we didn't expect this,' he said.

'It's almost like we're back to the future with this examination of phage activity directed against a broader spectrum of bacteria than we might have first thought of.'

According to research published in *The Lancet* in September, antibiotic resistant infections could kill 1.91 million people annually by the middle of the century.

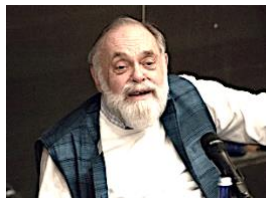
Funding Acknowledgements

We thank members of the Lithgow lab for critical evaluation of the manuscript and Dr. Matthew Belousoff (Monash University) for expert advice on structure visualizations and Dr. Kelly Wyres (Alfred Hospital) for expert advice on documenting the Klebsiella clinical isolates. We acknowledge that this project was conducted on the traditional homelands of the Wurundjeri Woi wurrung people, with phage MMNM isolated from waters of the Merri Creek, Melbourne, Australia. The Centre to Impact AMR would like to acknowledge and thank Wurundjeri Woi wurrung Elder, Aunty Gail Smith, who named the phage in this study in Woi wurrung language. We work according to a Memorandum of Understanding (MoU) between the Monash Centre to Impact AMR and the Wurundjeri Woi wurrung Cultural Heritage Aboriginal Corporation (<https://www.wurundjeri.com.au/>) the peak body representing the Wurundjeri Woi wurrung people. The MoU recognizes the Wurundjeri Woi wurrung as the sovereign First People of their Country with distinct rights and will ensure the equitable sharing of resources including any commercial benefits realized from the development of Wurundjeri Woi wurrung resources. The project was supported by the National Health and Medical Research Council through an NHMRC Investigator Award (2016330).

Vale ORS Inventor

Lancet December 14, 2024

[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(24\)02621-7/fulltext?dgcid=raven_jbs_etoc_emailx](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(24)02621-7/fulltext?dgcid=raven_jbs_etoc_emailx)



Richard Cash was born in Milwaukee, USA and studied at New York University School of Medicine, graduating in 1966, then interned at Bellevue Hospital in New York. He soon moved to Dhaka in Bangladesh

(then East Pakistan). He was an advocate throughout his life of simple, practical solutions to issues in public health. In 1968, Cash and colleagues published a paper in *The Lancet* that would end many of the deaths caused by cholera in low-income and middle-income countries (LMICs). It showed that an oral solution of glucose and electrolytes could be substituted for the intravenous fluids that were often not available for children with severe diarrhoea in what was then East Pakistan. Cash later went on to show that mothers

could safely use it in the home to rehydrate their children. Oral rehydration therapy (ORT) was born. In a 1978 Editorial, *The Lancet* said that it 'was potentially the most important medical advance this century'. This intervention is estimated to have saved tens of millions of lives. For the rest of his career Cash went on to teach and inspire others and champion global health equity.

Roche's Patent Strategy Creates a Roadblock to Affordable Pertuzumab for Breast Cancer Patients in India

by Chetali Rao and K M Gopakumar (Third World Network)

In a recent judgement, the Delhi High Court issued an interim injunction against the Indian biosimilar manufacturer Zydus Lifesciences to prevent the marketing of a biosimilar of Pertuzumab.

Pertuzumab, marketed by Roche under the brand name **Perjeta**, is a monoclonal antibody used for the treatment of HER2-positive breast cancer. It is typically used in combination with other treatments, such as trastuzumab (Herceptin) and chemotherapy, for both **neoadjuvant** (before surgery) and **adjuvant** (after surgery) therapy in patients with early-stage and advanced HER2-positive breast cancer.

Roche's Infringement Petition

Roche had instituted a patent infringement petition pertaining to its Indian Patent No. IN464646 and IN268632 covering Pertuzumab variants and their pharmaceutical formulations.

As part of the petition, Roche had filed a *quia timet* action along with an interim application for an injunction.

[A *quia timet* injunction is a specific legal remedy that allows a party to seek protection against **anticipated future harm**, particularly in cases involving intellectual property rights. Unlike interim injunctions that may be granted to prevent ongoing or immediate harm, a *quia timet* injunction is rooted in the apprehension of a **potential future injury** due to a mere threat of infringing actions that have not yet occurred. Thus a *quia timet* injunction allows a party to protect its right even before a violation has taken place.]

Roche sought an injunction to prevent and restrain Zydus from selling and marketing of the biosimilar version of Pertuzumab. During the proceedings, Roche stated that Zydus had failed to disclose critical information regarding its regulatory approvals from the regulatory body and the licensing agreements entered between Zydus and Dr. Reddy's for commercially launching the biosimilar version. Endorsing this argument the Delhi High Court, on 9th July 2024 granted an interim injunction restraining Zydus from marketing the Pertuzumab biosimilar.

Read the whole detailed story here:

https://wp.twnnews.net/sendpress/email/?sid=NjgwNTA&eid=ODAzNQ&utm_medium=email&utm_source=sendpress&utm_campaign

Outcome:

In the present suit Roche was unable to demonstrate a sufficient claim mapping or evidence of infringement, leading to the conclusion that an injunction could not be granted based solely on a manufacturer's conduct without clear evidence of intellectual property infringement.

In cases where access to life-saving medicines is at stake, courts must weigh public interest in patent matters, especially concerning access to affordable medications. This factor can significantly influence decisions on whether to grant an injunction extending beyond the manufacturer's conduct to its implication on access to medicines for the public at large.

New Zealand

Treaty of Waitangi under attack

https://secure.avaaz.org/campaign/en/stand_with_maori_loc/?brKzMs_b&v=162750&cl=21799588921&_checksum=692d0efd8c4cb98523622ab4fabe3b5165681ae81d40f2ad4c7a0216f040640ax

The Māori are currently resisting a number of actions by the recently elected New Zealand government that they believe threaten their rights and the country's founding document, the Treaty of Waitangi:

Treaty Principles Bill

This Bill would reinterpret the Treaty of Waitangi, which has been central to Māori rights since it was signed in 1840. Opponents of the Bill say it undermines Māori rights and the treaty's principles.

Policy changes

The government has repealed or reversed several policies that support Māori, including a law that gave Māori a say on environmental issues. They have also rolled back the use of te reo Māori⁶ in government departments and abolished the Māori Health Authority.

Selling Ihumātao

The government is attempting to sell Ihumātao⁷, Māori land, to private developers, which Māori say breaches the Treaty of Waitangi.⁸

Resistance to the Bill is taking many forms.

On November 14, New Zealand's parliament was brought to a temporary halt by MPs performing a haka. Opposition party MP Hana-Rawhiti Maipi-Clarke began the traditional ceremonial group dance after being asked

whether her party supported the Bill, which faced its first vote the following Thursday.

A nine-day march from the furthest tip of New Zealand's north island to the capital Wellington culminated with a rally of more than 40,000 people outside Parliament.

The country is often considered a leader in indigenous rights, but opponents of the Bill fear those same rights are being put at risk by this Bill.

Act, the political party that introduced the Bill, argues there is a need to legally define the principles of the 1840 Treaty of Waitangi, which has been fundamental to race relations in New Zealand. The core values of the treaty have, over time, been woven into New Zealand's laws in an effort to redress the wrong done to Māori during colonisation.

The Royal Australasian⁹ College of Physicians' (RACP) Māori Health Committee chair Dr Matt Wheeler said 'This Bill undermines the state's responsibility to collaborate with Māori, rendering the Treaty and its obligations meaningless,' he said. 'Consequently, equitable healthcare, a fundamental right for Māori, will continue to suffer.' 'The RACP has grave concerns about the Bill's direct and indirect impacts on people's health. Questioning the 'principles' of the founding document emboldens racism and causes stress which can lead to a range of health problems.

'No matter the outcome, the mere progression of this Bill is already causing harm.'



⁶ Te reo Māori is the native language of New Zealand and its indigenous people, the Māori

⁷ Ihumātao is an archaeological site of historic importance to Māori in the suburb of Mangere Auckland.

⁸ https://secure.avaaz.org/campaign/en/stand_with_maori_2_0/

⁹ *Australasian* refers to combined Australia and New Zealand. Many professional societies are combined for Australia and New Zealand members.

Occupation and oppression in Palestine

From UNRWA on Human Rights Day December 10

On 10 December, a joint United Nations (UN) convoy delivered urgently needed food to communities in southern and central Gaza along the Philadelphi corridor.

According to World Food Programme (WFP), interrupted food assistance in the Gaza Strip has led to a severe decline in food access, a tripling of households experiencing poor or severe food consumption, and a doubling of those facing food shortages since July.

Read the key points of the UNWRA analysis at

<https://www.unrwa.org/resources/reports/unrwa-situation-report-151-situation-gaza-strip-and-west-bank-including-east-jerusalem>

From TWN

Read the complete article

<https://twm.my/title2/resurgence/2024/361/human1.htm>

ON 28 October 2024, an emergency international delegation landed in Palestine to amplify evidence of the Israeli regime's systematic violations of international law since the start of its genocide in Gaza one year ago.

Delegates arrived in Palestine amid sustained efforts by Israeli authorities to prevent access to the Occupied Territories and obscure the conditions of deprivation, detention, apartheid and annexation endured by the Palestinian people.

The delegation – coordinated by the Progressive International, the National Lawyers Guild of the United States, and the International Association of Democratic Lawyers – brought together legal experts, human rights defenders and parliamentary representatives to hear witness testimony, conduct site visits and gather evidence of these violations of international law.

The evidence is clear: the genocide in Gaza and the systematic nature of the abuse of Palestinian detainees recall the worst historical abuses committed by colonial powers against indigenous populations.

Informed by their direct observations, the delegation echoes the urgent demand for states to sever all ties with the Israeli regime – not only to end the genocide and occupation but also to defend the very integrity of international law.

Systematic violations

Over the course of a week in the field, the delegation met a wide range of civil society organisations, political representatives and local communities to compile a wide-ranging set of findings about the conditions of the Occupied Territories and their changes since October 2023.

Time and again, delegates heard the same message from Palestinians: 'The world has failed us.' They face executions, expulsions, torture and incarceration – all atop the rubble of a genocide in Gaza.

.....

'There is a systematic destruction of the medical system. Hospitals destroyed, doctors killed, drones assassinating surgeons,' Palestinian political leader Mustafa Barghouti told the delegation. 'This is biological warfare: they make us sick, pollute our water and allow infections to spread.'

The widespread use of hunger as a weapon of war is now threatening all the remaining residents of Gaza. 'There is so much destruction of basic supplies that people are starving – not only in the North but also in the South,' Barghouti told the delegation. 'A chicken today is 600 shekels; that's 160 dollars. There is no food, no medicine and no showers. There are people who have been displaced not once, not twice, but 10 times.'

In this context, the Israeli regime's decision to ban the United Nations Relief and Works Agency for Palestine (UNRWA) is clear in its intent: to cut off the final lifeline for hundreds of thousands of people facing imminent starvation and in dire need of humanitarian assistance. 'We have never seen worse conditions than today in North Gaza. It is truly apocalyptic,' Roland Friedrich, Director of UNRWA Affairs, West Bank, told the delegation. 'No aid, all air strikes, and no journalists left to cover what kinds of devastation are taking place there.'

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Accounts from former detainees underscore the intensity of abuse within Israeli facilities. Issa Amro, a human rights activist from Hebron, described being arrested on 7 October, saying, 'I was arrested on 7 October, and 50 soldiers laughed and danced and tortured me for 11 hours – and they did not even take my ID.' Amro, who has no affiliation with Hamas, believes his treatment exemplifies the arbitrary and retaliatory nature of detentions following the 7 October operation.

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The true scope of detentions, especially from Gaza, remains concealed due to restricted access and communication.

Qaddura Fares, Head of the Commission of Detainee Affairs, explained that '**On the first day of this war – just two hours after the attacks of 7 October – Israel began a revenge war against Palestinian prisoners. Every right that they succeeded to achieve was stripped from them on that day. Those rights, all of a sudden, became 'privileges' – privileges to be taken away at their will.**'

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Each year, Israeli regime forces arrest some 500–700 children, showing clearly that the intention is not 'self-defence' or 'fighting terrorism', but intimidation and dehumanisation. Children are held for an average of 16.5 days, a period during which 75% suffer physical violence, and nearly all suffer other forms of psychological or physical torture.

.....

In Ramallah, Mayor Issa Kassis described how Israeli forces make their presence constantly known, entering the city at will. 'The Israeli army wants to make its presence felt in Ramallah. So they come, slowly; they shoot if they want. Their goal is to demean us, to threaten us, and above all to degrade the social fabric of an otherwise peaceful, civil city,' he told the delegation.

.....

Abu Diab added, 'Before, they would come with a demolition order. Now, they just demolish.' Palestinians are even forced to pay for the demolition, should they choose not to tear down their homes themselves, covering the lunch and coffee breaks of the soldiers overseeing the process.

On 5 November – just days following the departure of the delegation – Israeli bulldozers and police again arrived to the house of Abu Diab. In total, they destroyed five homes in the neighbourhood of Silwan, without warning and without court order.

This systematic dispossession extends across the West Bank. For decades, the Palestinian olive harvest has been marred by violence. Settlers have long burnt entire olive groves to the ground, blocked Palestinians from accessing their land, cut off water access and attacked farmers. In 2023, at least 96,000 dunums of olive-cultivated lands across the West Bank were left unharvested due to this repression: economic ruin for the farmers and the Palestinian economy at large.

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'In the West Bank, it's lawlessness,' said Mustafa Barghouti during a meeting with the delegation in Ramallah. 'You have 700 checkpoints and the military can do whatever it likes to the people who pass through them. The settlers have been distributed over 100,000 weapons, and they work day and night to terrorise us: shoot, burn, kill, evict.'

.....

On the morning of 29 October, our delegation arrived in Qusra to accompany the olive harvest. Immediately upon entering the fields, delegates were bombarded with tear gas and stun grenades by both settler armed forces and the Israeli army that accompanied them.

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In Qusra, the delegation witnessed the crimes committed against Palestinian farmers as they tended to their land. But the vast majority of Palestinians do not own any land at all; whether in 1948, 1967 or decades since, tens of thousands have been forced from their historical communities and into refugee camps that have since become the highest-density urban areas in the world.

Winding through the West Bank – on a fresh road paved for settlers in the wake of 7 October – the delegation saw brand new gates at the entrance to Palestinian villages, closed at whim by the Israeli army. The result is a new geography of the occupation – an archipelago of 'little Gazas', as one of our hosts described them: open-air prisons with no control over the entry and exit of goods or people.

.....

Lead delegate Ada Colau summarised the situation: 'Apartheid is the reality – and it is advancing.'

Implications

The ongoing genocide in Gaza – coupled with the systematic nature of Israel's abusive and illegal practices across the Occupied Territories – speak to a concerted effort to collectively punish, humiliate, dehumanise and break the will of the Palestinian people.

The Israeli regime's actions recall the worst historical abuses committed by colonial powers against indigenous populations seeking their liberation – from the concentration camps used by Britain against the national liberation movement in Kenya to the internment of millions of Algerians by France.

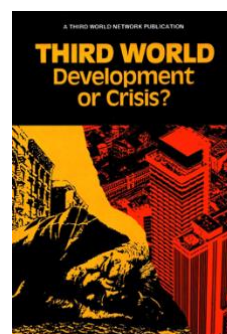
Any government providing arms, energy, economic or diplomatic support to Israel is complicit in these crimes against humanity – and threatens the basic integrity of the international order.

The Israeli regime must urgently be subject to total isolation on all fronts – economic, military, cultural, political and diplomatic – to lay the groundwork for the end of the genocide and the dismantling of the colonial occupation in Palestine.

**Third World Resurgence No. 361, 2024/4, pp 43-46¹⁰*

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¹⁰ <https://twn.my/title2/resurgence/2024/361/human1.htm>