



WMA
Junior Doctors Network

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JUNIOR DOCTORS NETWORK

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About Us.



What is the JDN?

The Junior Doctors Network (JDN) serves as an international platform for junior doctors to facilitate an open dialogue of global events and activities that are relevant to their postgraduate training and the World Medical Association (WMA).

It was created at the 61st WMA General Assembly (October 2010) in Vancouver, Canada and the inaugural JDN meeting was held at the 62nd WMA General Assembly (October 2011) in Montevideo, Uruguay. The network, which started from a few motivated junior doctors, now has a total of over 500 members from more than 90 countries from all regions of the world.

Junior doctors are defined as physicians, within 10 years after their medical graduation or who are still in an ongoing postgraduate medical education program.

What is the mission?

The purpose of the JDN is to empower young physicians to work together towards a healthier world through advocacy, education, and international collaboration.

What do we do?

Networking:

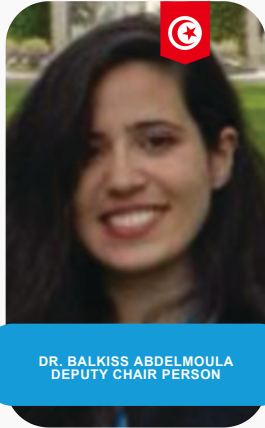
During the regular JDN meetings, members get to know each other, discuss global health issues, share challenges, and start collaborations on global health issues. The JDN meets on several occasions during the year, both in-person and via online teleconferences:

- Biannual meetings in conjunction with the Council Meeting and the General Assembly of the WMA (April & October).
- Monthly general membership and management team teleconferences
- Ad-hoc online and webinars organized by the JDN

JUNIOR DOCTORS LEADERSHIP 2023-2024



DR. MARIE-CLAIRE WANGARI
CHAIR PERSON



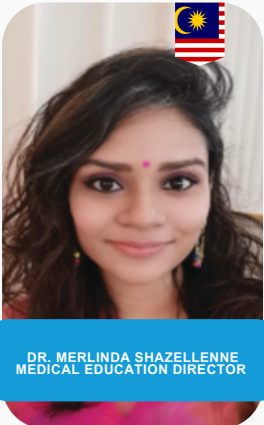
DR. BALKISS ABDELMOULA
DEPUTY CHAIR PERSON



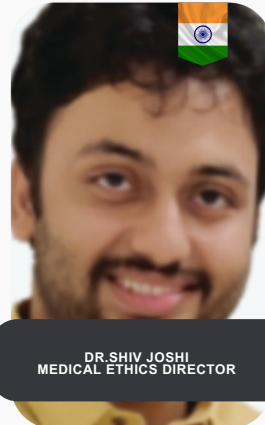
DR. DEENA MARIYAM
SECRETARY



DR. FRANCISCO FRANCO PÉGO
SOCIO-MEDICAL AFFAIRS OFFICER



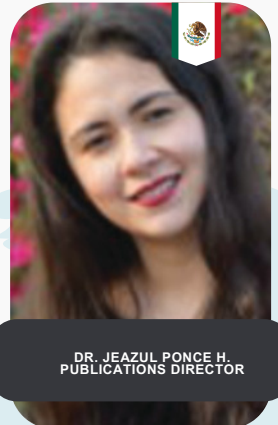
DR. MERLINDA SHAZELLENE
MEDICAL EDUCATION DIRECTOR



DR. SHIV JOSHI
MEDICAL ETHICS DIRECTOR



DR. PABLO ESTRELLA
MEMBERSHIP DIRECTOR



DR. JEAZUL PONCE H.
PUBLICATIONS DIRECTOR



DR. SAZI NZAMA
COMMUNICATIONS DIRECTOR



DR. UCHECHUKWU ARUM
IMMEDIATE PAST CHAIR

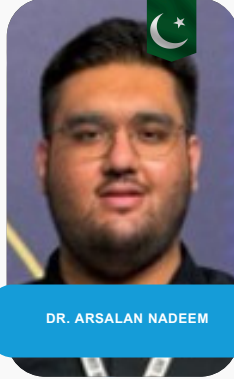


DR. LWANDO MAKI
IMMEDIATE PAST DEPUTY CHAIR

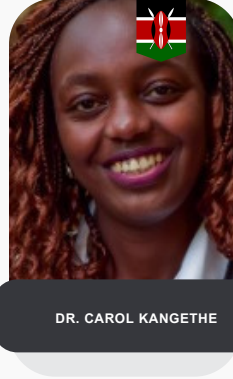
EDITORIAL TEAM 2023-2024



DR. DOUAA ROUFIA ATTABI



DR. ARSALAN NADEEM



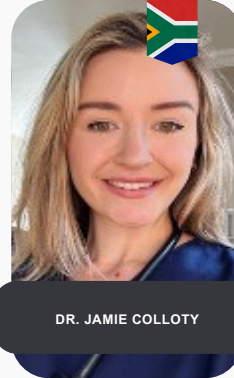
DR. CAROL KANGETHE



DR. SHRAVAN R. DAVE



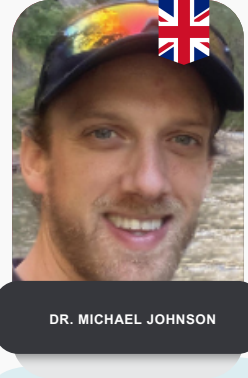
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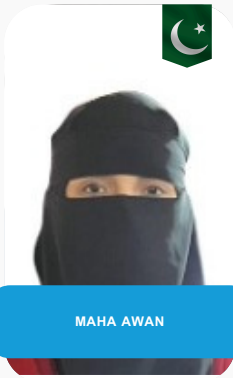
DR. JAMIE COLLOTY



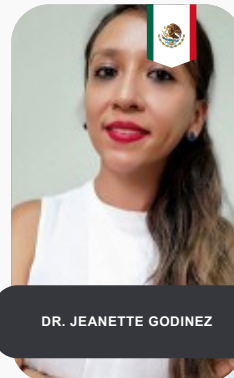
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DR. MICHAEL JOHNSON



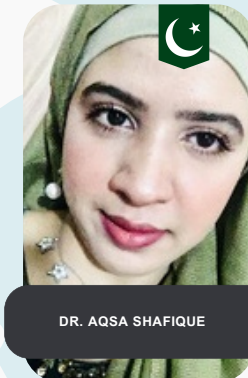
MAHA AWAN



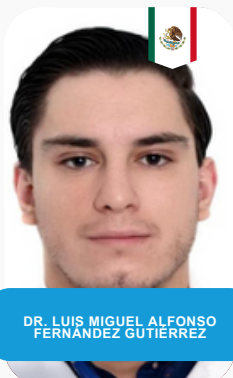
DR. JEANETTE GODINEZ



YAHAYA



DR. AQSA SHAFIQUE



DR. LUIS MIGUEL ALFONSO
FERNANDEZ GUTIERREZ



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**TEAM OF
OFFICIALS'
CONTRIBUTIONS,
AND
STATEMENTS.**

**BY MARIE-CLAIRE WANGARI (MBChB),
JDN CHAIRPERSON
TERM 2023-2024
KENYA
JUNIOR DOCTORS NETWORK
WORLD MEDICAL ASSOCIATION**



WORDS FROM THE JDN CHAIRPERSON

Dear Reader,

It is with immense pleasure and honour that I extend a warm welcome to you all to the 29th edition of the World Medical Association Junior Doctors Network Newsletter. As the Chair of the JDN, it brings me great joy to introduce you to this second newsletter for 2024.

The JDN newsletter continues to be a platform that serves as a beacon of knowledge, collaboration, and inspiration for junior doctors across the globe. In this edition, we have curated a diverse range of articles that largely build up from our first newsletter of 2024 and reflect the multifaceted nature of the medical profession. We are particularly excited to highlight stories of resilience and innovation from our colleagues who are making significant strides in their fields.

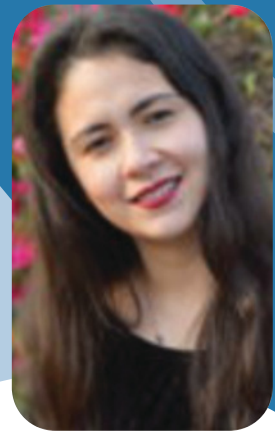
I would like to express my deepest gratitude to the contributors and editorial team who have dedicated their time and expertise to making this newsletter possible. Your unwavering commitment to the sustainability of the JDN newsletter is truly commendable.

I encourage you all to explore the rich content of this newsletter and to engage actively with our contributors and editorial team. I also remain available for feedback on the content of this newsletter on chair.jdn@wma.net

Thank you for your continued support and participation.

**Marie-Claire Wangari (MBChB)
Chairperson (2023/2024)
World Medical Association Junior Doctors Network (WMA JDN)**

**BY DR. JEAZUL PONCE HERNANDEZ, MD
MSC. MPH.
PUBLICATIONS DIRECTOR
TERM 2023–2024
MEXICO-SPAIN
JUNIOR DOCTORS NETWORK
WORLD MEDICAL ASSOCIATION**



WORDS FROM THE PUBLICATIONS DIRECTOR

I am pleased to share with you the activities of junior doctors around the world. It is important to mention that your contributions are very valuable, not only to our community but also to young people around the world who work in various forms of public health, global health, clinical research and clinical medicine.

I encourage you to continue working, creating, and promoting health and well-being, cooperating and strengthening health systems. Additionally, I invite you not to fear making mistakes, as it is part of being human. Making mistakes can lead us to have interesting conversations with people who have different skills and perspectives. It also reminds us that advancing in the field of public health and global health is a shared task.

It is crucial to recognize the dedication and effort that each of you puts into your daily work. Your innovations and fresh approaches are driving positive and sustainable changes in communities around the world. From the implementation of prevention programs to improvements in medical care, each initiative is a step towards a healthier future.

We cannot underestimate the power of collaboration. Working together allows us to learn from each other, share resources, and maximize our impact. I encourage you to continue building strong networks and fostering strategic partnerships. Global health cannot advance without a collective effort and the integration of multiple disciplines and experiences.

Furthermore, I want to highlight the importance of resilience and adaptation in our profession. The challenges we face are complex and constantly evolving. Being open to new ideas and approaches is essential to overcoming these challenges. The recent pandemic has demonstrated the need for flexibility and the ability to quickly adapt to changing circumstances.

Thank you for your dedication and commitment. Let us move forward with the conviction that together we can build a healthier and more equitable world for all.

**Jeazul Ponce (MD. MSc. MPH)
Publications Director(2023/24)
World Medical Association Junior Doctors Network (WMA JDN)**



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**UNIVERSAL
HEALTH COVERAGE AND
ANTIMICROBIAL RESITANCE
SPECIAL SECTION.
INTERVIEW**

WOMEN IN GLOBAL HEALTH

ROOPA DHATT

FORMER EXECUTIVE DIRECTOR &
CO-FOUNDER



FORMER EXECUTIVE DIRECTOR &
CO-FOUNDER

**BUILDING A HEALTHIER FUTURE: DR. ROOPA DHATT ON GLOBAL
HEALTH CHALLENGES OF UHC, GENDER EQUITY AND AMR**

Dr. Roopa Dhatt is a leading voice in the movement to advance gender equality and redress gender disparities in leadership in global health. She is also a practicing Internal Medicine physician at Georgetown University Hospital in Washington, D.C. and has faculty appointments as an Assistant Professor at Georgetown University. Dr. Dhatt's unwavering commitment extends to confronting the issues of power dynamics, privilege, and intersectionality that hinder numerous women from accessing positions of global health leadership. She endeavors tirelessly to create inclusive spaces where the voices of these women can resound. Determined to build a movement to transform women's leadership opportunities in health, Dr. Dhatt co-founded Women in Global Health in 2015. Today, Women in Global Health boasts 51 chapters in 47 countries with continued demand to expand. Through collective action, Dr. Dhatt, the global team, and the Chapter network drive change by mobilizing a diverse movement of emerging women health leaders, generating evidence and thought leadership for informed policy change, pressing governments and global health leaders to fulfill their commitments, and holding them accountable. Accumulating nearly 15 years of experience in global health, she has engaged with over 120 countries and assumed numerous advisory and board roles. She advises global health institutions on issues concerning the health workforce, gender equity, and universal health coverage. She earned recognition in the Gender Equality Top 100 as one of the most influential figures in global policy and served on the Lancet COVID-19 Commission. Additionally, she acted as a former W7 Germany Advisor and presently serves as a W7 Japan Advisor, advocating for feminist agendas before G7 governments in 2023. Dr. Dhatt contributes her expertise as a member of the Economist Impact Health Inclusivity Index Expert Advisory Committee and the Global Council on SDG3.

Furthermore, she holds a position on the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) Scientific Advisory Board, serves on the Virchow Prize Committee, and is designated as a World Economic Forum Young Global Leader (YGL). In March 2021, she was invited as a public delegate to the historic U.S. Delegation to the United Nations 65th Commission of Status of Women Meeting, led by Vice President Kamala Harris. Dr. Dhatt's contributions to academic discourse have resulted in publications in renowned journals such as the Lancet, British Medical Journal (BMJ), Devex, and Forbes. Furthermore, she has been featured in interviews by National Geographic, Nature, NPR, BBC, EuroNews, and numerous other prominent media channels.

SOCIAL MEDIA

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Instagram: <https://www.instagram.com/roopadhatt/> | [@roopadhatt](#)



BUILDING A HEALTHIER FUTURE: DR. ROOPA DHATT ON GLOBAL HEALTH CHALLENGES OF UHC, GENDER EQUITY AND AMR

Women in Global Health (WGH) is an organization built on a global movement with the largest network of women and allies challenging power and privilege for gender equity in health. It is a US 501(c)(3) started in 2015, which has grown to 51 official chapters in 47 countries. Through collective action, Dr. Dhatt, the global team, and the Chapter network drive change by mobilizing a diverse movement of emerging women health leaders, generating evidence and thought leadership for informed policy change, pressing governments and global health leaders to fulfill their commitments, and holding them accountable. With more than 50 chapters in all regions, WGH works tirelessly to champion gender equity and create a new social contract for women health workers at global, national, and local levels to improve health outcomes and deliver better health for all. Together with the World Health Organization, WGH jointly co-chairs the Gender Equity Hub for the Global Health Workforce Network, working with partners to catalyze gender equity and gender transformative change in the health workforce.

WGH chapters are active in Argentina, Australia, Bangladesh, Benin, Bolivia, Brazil, Burkina Faso, Burundi, Cameroon, Canada, Chile, China, Côte d’Ivoire, Egypt, Finland, Germany, Denmark, Guinea, India, Ireland, Senegal, Mali, Kenya, the Lusophone Community, Malawi, Niger, Nigeria, Rwanda, Norway, Pakistan, Iraq, Mexico, United Arab Emirates, Austria, Philippines, Portugal, Singapore, Somalia, South Africa, Spain, Sweden, Switzerland, Togo, Uganda, UK, USA (Seattle, Georgia, DC, Midwest), Francophone West Africa, Zambia, and Zimbabwe. WGH is honing its focus on five major policy priorities for the year 2023: equity in leadership for women in global health, a new social contract for women health and care workers, Gender-Responsive Universal Health Coverage (UHC), gender equity in health emergency preparedness and response, and movement and alliance building.



Women in Global Health
2023 Policy Priorities

- 1 Gender equal and diverse leadership in global health based on Gender Transformative Leadership**
 Equal leadership for women in health is not a luxury, it will drive better health for all.
- 2 New social contract for women health and care workers**
 Women make up majority of the healthcare workforce facing gender-based inequalities and burnout. They need fair pay, safe and decent work, and harassment free workplaces.
- 3 Gender responsive Universal Health Coverage**
 Gender-responsive UHC will transform the health and lives of billions of people, especially women and girls.
- 4 Gender Equity in Health Emergency Preparedness and Response**
 Gender equity is central to strong preparation and response to health emergencies. We must learn from COVID-19.
- 5 Movement and alliance building for gender equity in global health**
 We need to resist the backlash on gender equality, and the rights of women and girls, because gender equality in global health creates stronger health systems and global health security.

WGHI WOMEN IN GLOBAL HEALTH



**BUILDING A HEALTHIER FUTURE: DR. ROOPA DHATT ON GLOBAL
HEALTH CHALLENGES OF UHC, GENDER EQUITY AND AMR**

In the 21st century, the landscape of global health faces increasingly complex and diverse challenges. From the constant threat of pandemics to the growing shortage of healthcare workers, and the ongoing struggle for women's sexual and reproductive rights, the current scenario demands decisive and coordinated action. In this interview, we explore the challenges of Universal Health Coverage (UHC) and how they affect healthcare providers, particularly junior doctors. Additionally, we address the critical issue of antimicrobial resistance (AMR) and the fundamental role that healthcare professionals, especially junior doctors, play in.

The interviewee highlights the importance of addressing health challenges in the 21st century, focusing on three main areas: pandemic preparedness and response, healthcare worker shortages, and the fight for women's sexual and reproductive rights. Subsequently, the need for gender-sensitive Universal Health Coverage (UHC) is discussed, recognizing the importance of addressing gender inequalities both in the healthcare workforce and in access to healthcare services. The crucial role of junior doctors in promoting UHC through their participation in professional associations and global campaigns is emphasized.

Regarding UHC, the importance of addressing the multiple injustices affecting women healthcare workers is underscored, as well as the need for a comprehensive approach to ensure accessibility and equity in healthcare delivery. Additionally, the direct impact of UHC's absence on the daily work of junior doctors is highlighted, as they often face the consequences of healthcare system deficiencies.

The interview also addresses the issue of antimicrobial resistance (AMR), highlighting the crucial role of junior doctors in responsible antibiotic prescribing and patient education on proper antibiotic use. The need for a comprehensive approach addressing factors contributing to AMR is emphasized, including improving hygiene and infection control in healthcare facilities, as well as raising awareness about the importance of preserving antibiotics.

**Prologue by Delta Jeazul Ponce Hernandez. Publications director,
Interviewer.**



**BUILDING A HEALTHIER FUTURE: DR. ROOPA DHATT ON GLOBAL
HEALTH CHALLENGES OF UHC, GENDER EQUITY AND AMR**

What are the health challenges in the 21st century?

Unfortunately our world is spoilt for choice when it comes to systemic threats for health. PostCOVID-19, we can't be complacent about the likelihood or the potential impact of a future pandemic. We know it's not a question of if but rather when. We learned some hard lessons from COVID-19, not least that women health workers, who made up 90% of the frontline workforce, kept us safe by working overtime, unremunerated, unprotected by inadequate or sometimes altogether missing PPE. All of this needs to change for us to withstand future threats, as our policy brief of Gender-Responsive Pandemic Preparedness, Prevention, Response and Recovery (PPRR) shows.

The other big threat to health systems is very much related to what I have just mentioned. The WHO predicts a global health worker shortage of 10 million workers by 2030 – and we know women are leaving the profession in unprecedented high numbers. This Great Resignation and Great Migration of women health workers can only be stopped with meaningful action to redress the multitude of injustices that are demanded of women health workers, from unpaid or underpaid work, to the leadership gap, violence, abuse and harassment and so on. We ignore these trends at our peril.

Lastly, let's be clear, the rising backlash against women's sexual and reproductive health and rights is a danger not only to women, but also to the (largely female) workforce that has to deal with the consequences of the loss of rights and services. This puts health workers in unthinkable situations where they risk prosecution for providing vital healthcare. It's not something I thought I would see happen in my lifetime. We must take it very seriously indeed.



**BUILDING A HEALTHIER FUTURE: DR. ROOPA DHATT ON GLOBAL
HEALTH CHALLENGES OF UHC, GENDER EQUITY AND AMR**

What are the health challenges in the 21st century?

Governments and other stakeholders have to invest in making health coverage universally available. This means coverage that is there for everyone, everywhere. From my perspective as the co-founder of a global movement of women in health, I can tell you with certainty that making our health systems gender-responsive is an indispensable step on our way to UHC. You will not be surprised to hear me say that UHC without gender-responsive health systems will be very difficult to achieve. Gender is a crucial social determinant of health. This means that patriarchal norms, power structures, control over resources can prevent women and girls from accessing the healthcare they need. At the health workforce end of the spectrum, we know that the women who make up 70% of the workforce are expected to tolerate gender inequities on everything from pay to leadership and violence, harassment and abuse – and leaving the profession as a result. Making health systems gender-responsive at both the workforce and service user end is an imperative. Without this, UHC risks remaining a distant dream.

Could you share your thoughts on why Universal Health Coverage is important from a healthcare provider's (HCP) perspective? Health is a human right, which means it's universal and based on non-discrimination. Now, we know that different countries have different ways in which they approach this, whether it's insurance-based schemes or cover through taxation, whether or not there's a public-private mix, etc. What's important to know is what happens when coverage is not available, not accessible, not affordable. We only have to look as far back as the COVID-19 pandemic to understand that even when we don't take a normative, rights-based approach to UHC, the whole of society pays the price of UHC not being achieved.

We need strong healthcare systems and we need health to be accessible to all, without exception. HCPs understand that better than anyone else, because they deal with the consequences of system deficiencies when the worst happens.



BUILDING A HEALTHIER FUTURE: DR. ROOPA DHATT ON GLOBAL HEALTH CHALLENGES OF UHC, GENDER EQUITY AND AMR

How can junior doctors actively contribute to the advancement of Universal Health Coverage?

Junior doctors have an important voice through our professional associations, whether it's organisations such as IFMSA during our training or the Junior Doctor Network of the World Medical Association. I benefited hugely from engaging with global networks early in my career and encourage others to do the same. Our voices make a difference. At Women in Global Health, we have many junior doctors in our national chapters who join our global campaigns on leadership, pay, protection, vaccine equity, mental health, PSEAH. They campaign in their national context, join our delegations at global level eg to UHC HLM and WHA contribute country perspectives and are part of our evidence gathering and policy research.

How do you think Universal Health Coverage impacts the daily work and experiences of junior doctors?

Most of us become doctors because we want to keep people and societies well. When UHC is absent, societies suffer the consequences of multiple overlapping injustices including poverty and ill-health. Junior doctors are on the frontline, responding to the consequences of these systemic deficiencies. Take the example of the US, which saw nearly 60,000 excess deaths from COVID-19, over 220,000 additional hospitalizations, and 2.9 million additional cases, all associated with lack of medical insurance.

When UHC is absent, the whole of society pays the price, and junior doctors are sadly among the first line responders who get to deal with the aftermath. Healthcare should be affordable and accessible to all. Doctors should have the professional satisfaction of knowing patients are being treated for their health needs, not their ability to pay and that the most vulnerable populations are being reached. Doctors should therefore see fewer preventable and premature deaths, e.g. in childbirth and infancy and far less avoidable suffering.



BUILDING A HEALTHIER FUTURE: DR. ROOPA DHATT ON GLOBAL HEALTH CHALLENGES OF UHC, GENDER EQUITY AND AMR

Could you share your perspectives on why Antimicrobial Resistance is a significant concern, especially in the context of the roles of junior doctors?

Imagine a world where antibiotics, drugs that revolutionized infection treatment, no longer work. This will have an enormous impact on so many aspects of our lives, from medical treatment and prevention to global socioeconomic burden. We simply cannot let this happen. Junior doctors play a significant role in this. I know very well that we may feel the pressure from patients to prescribe antibiotics, even when unnecessary. I have had many patients come with an expectation that every infection should be treated with antibiotics, less willing to trust younger doctors with their therapeutic choices. It puts extra pressure on a junior professional, with time constraints and limited access to diagnostic tools adding to the burden. Young doctors are key actors in the AMR battle, as the management of resistant infections and growing limits on treatment options is a looming threat for modern medicine.

How do you think awareness and education can play a role in addressing Antimicrobial Resistance?

Education is key to overcoming the dangers posed by AMR. This matters everywhere, and is particularly the case in parts of the world where gaps in healthcare coverage lead to inadequate antibiotic prescribing practice, by providers lacking sufficient training. In some countries with vulnerable health systems antibiotics are still unregulated and available over the counter. Since there are so few new antibiotics being developed it is critical we do not lose the effectiveness of the ones we have through misuse. That means strengthening health systems everywhere.

It's worth remembering that AMR does not respect national borders. Drug resistant TB is also seen in HICs with better controls. This has to be a national and global effort. There is an important hygiene angle too. We need a strong emphasis on hygiene and infection prevention and control in all health facilities to stop patients and health workers acquiring and spreading infections that may be resistant e.g. MRSA and C Difficile. Hand hygiene, infection control in surgery are essential, but in LMICs a large proportion of hospitals and clinics have no clean water supply. Huge investment is needed in water supply, soap and clean toilets in health care facilities. This is actually another part of UHC. .



**BUILDING A HEALTHIER FUTURE: DR. ROOPA DHATT ON GLOBAL
HEALTH CHALLENGES OF UHC, GENDER EQUITY AND AMR**

One Health is also a key consideration in this, as animal health service provision can also be inadequate and under-resourced. At the patient end, awareness and knowledge are crucial in shaping expectations in a way that is constructive.

When patients understand that antibiotic use should be sparing and avoided unless strictly necessary, the pressure on both human and animal healthcare providers will be lowered, and responsible antibiotic use will be easier to achieve.

Interviewer: Dr. Dhatt, I want to personally thank you for taking the time to share your invaluable insights and expertise on pressing healthcare challenges. Your contributions have provided valuable illumination on critical issues impacting our global community.





WORLD
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CONFERENCES, MEETINGS, CONTRIBUTIONS & TESTIMONIES



154TH WORLD HEALTH ORGANIZATION, EXECUTIVE BOARD MEETING

**FRANCISCO PÊGO
DEENA MARYIAM
MUHA HASSAN
KUAN YU CHIANG**



154TH WORLD HEALTH ORGANIZATION, EXECUTIVE BOARD MEETING

EB154 – which sets the agenda for the forthcoming World Health Assembly (WHA) in May – convened in Geneva in January. It's the place where crucial decisions about World Health Organisation (WHO) policies, programs and elections are made. Non-state actors (NSA) also have a significant role, expressing their concerns and viewpoints.

This year's meeting involved discussions on the intergovernmental negotiating body (INB) process, the Climate and Health declaration and Antimicrobial Resistance (AMR). Non-state actors, such as the World Medical Association (WMA), actively participated. Pre-WHA JDN Organizing Committee (OC), along with JDN and WMA collaborated on and delivered 6 interventions - Universal Health Coverage (UHC), Non-Communicable Diseases (NCD), Antimicrobial Resistance (AMR), Social Determinants of Health (SDH), Climate Change and Health (CCH), and Health Emergencies (HE), the latter held as a constituency jointly with the remaining health professionals.

We advocated for decisive action on climate and health, strengthening of the universal health coverage program, prioritising mental health in primary healthcare, and adherence to INB and international health regulations at the upcoming WHA. Being young physicians, we not only possess the qualities and expertise of a doctor but also the zeal and enthusiasm found in youth. As healthcare providers and future leaders, we have involved ourselves deeply in the process of WHO with the support of WMA. Besides the statements, which can be read using the links above, we'd like to give you some key takeaways from the recent WHO activity:

Figure 1 - Our team in Geneva - from left to right, Christina, Francisco and Kuan Yu



154TH WORLD HEALTH ORGANIZATION, EXECUTIVE BOARD MEETING

CLIMATE CHANGE: The resolution called upon member states to take relevant steps to tackle health impacts of climate change, which included strengthening the implementation of WHO Global Strategy on Health, Environment and Climate Change and adopting a health-in-all policies approach. Our intervention on the climate change agenda supported the WHO report on climate crisis action. We pressed for carbon neutrality by 2030 and emphasised the need to formally state fossil fuels as the main source of greenhouse gas emissions in the resolution in order to drive an impactful change in future policies and actions. Member states (MS) will formally present the resolution for decision at WHA77.

INB: EB154 was used as the last open meeting for MS and NSA to comment on the developments of this document. We are still unsure about how ground-breaking it will be as negotiations will happen until May this year, with WMA trying to intervene whenever allowed. Although its most recent draft already addresses the safety of the workforce during emergencies, the toll on workers is not only physical nor immediate and we must include the prevention and recovery from the mental health burden and exhaustion of health personnel. Additionally, young, or in-training healthcare workers should be provided a clear set of competencies and adequate supervision to guarantee their continued learning, safety, and responsibilities proportional to their level of proficiency.

AMR: The WHO's approach to AMR includes prevention of infections, ensuring access to quality diagnosis and treatment, and promoting strategic information and innovation. A Japanese representative noted that many nations lack adequate budgets for implementation despite having national plans. This highlights the significant costs of precise laboratory monitoring and developing accurate screening tools.

GHPI: WHO's Global Health and Peace Initiative (GHPI) was formally adopted at EB154. It emphasises the need for emergency health responses that are both "conflict-sensitive" and "peace-responsive". The initiative progresses through six work-streams, commencing with evidence generation through research and analysis. GHPI acknowledges inequalities are exacerbated in conflict zones and offers a mechanism to tackle these issues, fostering trust through multilateral efforts.



154TH WORLD HEALTH ORGANIZATION, EXECUTIVE BOARD MEETING

On social media communication

Experimenting with Instagram Reels yielded increased engagement from followers and non-followers, but creating short videos proved time-consuming and challenging without user-friendly tools. With limited human resources for the task, we took turns to share highlights on social media. This approach was labour-intensive, but we learnt how to best manage the workflow, and studied how to implement AI tools for live recording, transcription, translation, and summarization to ease this burden going forward.

Figure 2 - Delivering one of our 5 statements in the floor of the EB meeting room



154TH WORLD HEALTH ORGANIZATION, EXECUTIVE BOARD MEETING

Individual reflections

Francisco: Leading JDN on such a stage was a first for me, but the degree of trust invested in us by the WMA and the diligence of fellow delegates made managing the delegation a really rewarding experience. I think that there are many things to improve in this work of ours and that this event was the perfect trial run for an improvement already at the WHA77. The things at which you should expect to see us raise the bar soon are social networks presence and engagement, statement writing proficiency, and side events participation.

Kuan Yu: This was a pivotal moment in my life, witnessing that direction emerges through interaction, corroborating the idea that "leadership arises through interaction". This included calls from numerous others to not overlook youth's contribution and to respect the needs of women and children.

Muha: Attending online was convenient and accessible, allowing me to easily follow the discussions live. I found the experience valuable, especially as I was able to also follow the discussions of my colleagues attending in person.

Deena: The Pre-WHA OC Team was a delight to work with, the diversity we brought to the table made the overall experience memorable. Even though I attended online, I was kept up to date with all proceedings and was able to follow up at every step of the way. Hoping to be part of this team again next year and join in person.

What's next?

To follow-up on EB154, we will be sending delegates to the WHA77, which will be held in Geneva from 27th May 2024 to 1st June 2024. Two days prior to this, we will hold a pre-WHA JDN meeting, which will consist of networking and capacity building sessions to which every Junior Doctor in the Network is invited! At all times, we are openly accepting suggestions on the ways to improve our effectiveness at such high-level representation.

Acknowledgements: The full PreWHA Organising Committee, both the ones in the official delegation but also the ones following the action online.



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BREAKING BARRIERS: THE JUNIOR DOCTORS NETWORK AT THE FOREFRONT OF CND67

The Junior Doctors Network (JDN) of the World Medical Association (WMA) marked a significant milestone by participating in the 67th Commission on Narcotic Drugs (CND67) at the United Nations Office on Drugs and Crime (UNODC) in Vienna on March 18 and 19, 2024. This involvement underscores the key role of young doctors in shaping global medication policy, especially in ensuring access to controlled medicines for medical and scientific purposes.

The CND67 concentrated on improving access to and the availability of controlled substances for medical and scientific purposes. This was encapsulated in the resolution “Promoting awareness-raising, education and training as part of a comprehensive approach to ensuring access to and the availability of internationally controlled substances for medical and scientific purposes and improving their rational use”. This resolution reflects the global commitment to the rational and equitable use of controlled medicines.

During the event plenary, the JDN, represented by Dr. Pablo Estrella Porter, delivered a compelling statement prepared by the newly established Young Doctors Network within UNODC. This statement highlighted the challenges in accessing controlled medicines and emphasized the need for integrated medical education, sufficient resources, collaborative regulatory frameworks, and the reduction of stigma associated with controlled medicines. The advocacy of the JDN was crucial in bringing the perspective of young doctors to the forefront of the global discourse on drug control and patient care.

In her address at the CND67 on March 14, 2024, Ms. Ghada Waly, Director-General and Executive Director of UNODC, noted the establishment of a network of young doctors from around the world to discuss sustainable solutions for barriers to access.

This initiative is part of the broader UNODC programming aimed at building connections in the medical field and fostering collaborative efforts to enhance access to controlled medicines.

The JDN also participated in a side event titled “Taking the Pledge4Action to ensure adequate availability of internationally controlled essential medicines”. This event, co-sponsored by UNODC, showcased global commitments to improving access to essential medicines. Discussions featured representatives from various countries and organizations, including Belgium, Brazil, Ghana, INCB, CAPSA Canada, and the International Association for Hospice and Palliative Care (IAHPC).

The involvement of young doctors in these forums is critical for driving the conversation toward practical and innovative solutions for medication accessibility and healthcare improvement.



BREAKING BARRIERS: THE JUNIOR DOCTORS NETWORK AT THE FOREFRONT OF CND67

Recommendations from the Young Doctors Network

At the plenary session of CND67, the Young Doctors Network presented the following recommendations:

1. Strengthen education and training in the rational prescribing of controlled substances.
2. Foster global partnerships to share best practices and innovations.
3. Advocate for policy reforms to balance access to controlled medicines and prevent misuse.
4. Support research and data sharing to inform evidence-based policymaking.
5. Address stigma around controlled medicines and ensure equitable access, particularly in low- and middle-income countries.

The participation of the JDN at CND67 represents a landmark event, signifying the growing influence and responsibility of young doctors in the global health landscape.

Their involvement in UNODC initiatives, particularly in the accessibility of controlled medicines, sets a precedent for future engagements and policy developments. This event not only highlighted the challenges but also paved the way for actionable solutions, aligning with the Sustainable Development Goals and ensuring that no one is left behind in accessing essential healthcare services.



JEAZUL HERNANDEZ

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COMMITMENT AND CHALLENGES OF YOUNG DOCTORS: CLIMATE EMERGENCY AND WORKING CONDITIONS FOR DOCTORS IN SPECIALTY TRAINING; EJD SPRING ASSEMBLY 2024, MONTPELLIER, FRANCE

The European Junior Doctors (EJD) is an organization that represents young and resident doctors in Europe. Its mission is to defend the interests and rights of these professionals, promoting better working conditions, high-quality medical education, and workplace well-being.

The European Junior Doctors Spring General Assembly took place on May 3-4, 2024, in the historic buildings of the University of Medicine in Montpellier, France. This event, filled with significant discussions and decisions, focused on the mobility of healthcare workers and how current policies affect doctors in training. Additionally, other crucial issues for young doctors were addressed, including climate emergency policies and working conditions.

Challenges of Junior Doctors in Europe: Climate Emergency

One of the main topics discussed during the recent Spring Assembly was the climate emergency policy. The European Junior Doctors (EJD) has made progress in developing a policy that aligns with other medical organizations and the European Union's political agenda. This policy highlights the commitment of young doctors to tackle climate change, emphasizing the interconnectedness of public health and sustainability.

Impact of Climate Change on Public Health: Climate change significantly impacts public health by increasing disease burden and mortality rates. Collective actions from governments, healthcare systems, professionals, and citizens are essential to avert the worst outcomes.

Contribution of the Health Sector to Carbon Emissions: The healthcare sector is a notable contributor to carbon emissions, highlighting the need for mitigation efforts within healthcare operations.

Strategies Advocated by EJD:

- **Advancing the European Green Deal:** Integrate a "One Health" approach across all policies to ensure cohesive health and climate actions.
- **Medical Education:** Incorporate global health and climate change topics into medical education at all levels.
- **Preparation of the Health Workforce:** Enhance funding, planning, and capacity to prepare healthcare workers for the pressures of climate change.
- **Sustainability and Efficiency in Healthcare Systems:** Allocate resources to implement measures that improve the sustainability and efficiency of healthcare systems.



COMMITMENT AND CHALLENGES OF YOUNG DOCTORS: CLIMATE EMERGENCY AND WORKING CONDITIONS FOR DOCTORS IN SPECIALTY TRAINING; EJD SPRING ASSEMBLY 2024, MONTPELLIER, FRANCE

The Reality of Resident Doctors in Europe

Currently, resident doctors in many European countries, including Spain, deal with long working hours that exceed the 48-hour weekly limit stipulated by the European Working Time Directive. These extended working hours not only affect the quality of life of young doctors but also the quality of care they can provide to their patients.

The EJD strongly opposes forced allocation and advocates for strategies that retain healthcare workers without such measures. During postgraduate training, involuntary reallocation manifests through various forms, such as allocation based on healthcare demand and mandatory placements in underserved areas. In the early specialization period, professionals face contractual obligations linking career advancement to service in underserved regions. These initiatives, while aiming to address medical personnel shortages, raise concerns about training quality, personal choices, and professional development.

Junior Doctors Network (JDN) Intervention

During the assembly in Montpellier, the Junior Doctors Network (JDN) was introduced to the European Junior Doctors. The emphasis was on the importance of collaboration to promote policies benefiting young doctors worldwide.

Active participation from all JDN members was encouraged, highlighting that the network relies on the commitment and collaboration of young doctors from diverse regions. The invitation was extended to European Junior Doctors to contribute to the JDN newsletter and join as active members, providing opportunities to engage in activities offered by the World Medical Associations, including meetings in April and October.

In summary, addressing critical issues like climate change, working conditions, and promoting active member participation strengthens the JDN's mission and contributes positively to global health. By aligning with EJD, UEMO, and through JDN and WMA, there is a collective effort to demand better working conditions and strategies to address the shortage of human resources in many European countries. This concerted effort aims to improve the lives and careers of junior doctors, ultimately enhancing healthcare delivery across Europe.





WORLD
MEDICAL
ASSOCIATION

ARTICLES BY JDN MEMBERS

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ASSOCIATION

THE RISING THREAT: ANTIMICROBIAL RESISTANCE AND ITS IMPACT ON GLOBAL HEALTH

The emergence of antimicrobial resistance has been attributed to many factors, including the overuse and misuse of antibiotics in human medicine, agriculture, and veterinary practices. Excessive use of antibiotics in livestock farming has led to the development of antibiotic-resistant bacteria that can be transmitted to humans through food. Additionally, poor infection control in hospitals and clinics and lack of clean water and sanitation in some areas also contribute to the spread of resistant pathogens.

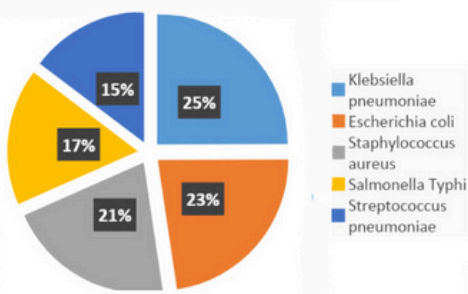
The impact of antimicrobial drugs on global health is enormous. It causes the treatment of infectious diseases to be ineffective, increases morbidity, increases the risk of hospitalization and increases mortality. The World Health Organization (WHO) estimates that AMR causes 700,000 deaths worldwide each year, and if action is not taken, the number of deaths could rise to 10 million each year from 2050. The situation is particularly concerning in countries like Pakistan, where the weak health infrastructure and limited access to quality healthcare services contribute to the problem. The country faces a dual challenge of addressing AMR while also improving access to essential healthcare services.

4.95 million people who died in 2019 suffered from drug-resistant infections. AMR directly caused 1.27 million of those deaths. 1 in 5 of those deaths occurred among children under 5 years old. In Pakistan in 2019, there were 59,200 deaths attributable to AMR and 221,300 deaths associated with AMR. Pakistan has the 176th highest age-standardized mortality rate per 100,000 population associated with AMR across 204 countries. In the GBD region of South Asia, Pakistan has the 5th highest age-standardized mortality across 5 countries. The number of AMR deaths in Pakistan is higher than deaths from neoplasms, respiratory infections and tuberculosis, enteric infections, diabetes and kidneyAntimicrobial resistance (AMR) is a major threat to global health. This occurs when organisms such as bacteria, viruses, parasites, and parasites change their response to the drug, making the drug ineffective. This phenomenon is spreading rapidly and, if left unchecked, will lead to an epidemic, increasing disease and mortality rates worldwide.

There are five pathogens to be aware of in Pakistan (number of deaths associated with AMR in parenthesis): *Klebsiella pneumoniae* (34,400), *Escherichia coli* (31,300), *Staphylococcus aureus* (28,600), *Salmonella Typhi* (23,300), and *Streptococcus pneumoniae* (20,300). These commonly cause bloodstream infections, lower respiratory infections and all related infections in the thorax, peritoneal and intra-abdominal infections, and bloodstream infections.



THE RISING THREAT: ANTIMICROBIAL RESISTANCE AND ITS IMPACT ON GLOBAL HEALTH



Tackling this growing threat requires a multifaceted approach involving government, medical professionals and the public. Some of the key strategies are to promote the effective use of antibiotics, invest in research and development of new drugs and diagnostic tools, support surveillance systems, and promote public awareness of the importance of appropriate antibiotic use.

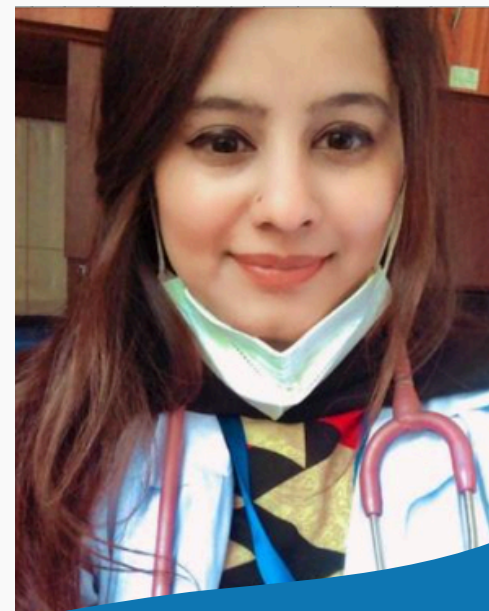
The Role of Junior Doctors in Addressing Antimicrobial Resistance

Junior Doctors are in a unique position as future healthcare leaders, and their engagement is critical in effectively combating antimicrobial resistance (AMR). We look at how younger physicians might influence and enhance the proper use of antimicrobials, emphasizing the need of education, awareness, and responsible prescribing behaviors among them.

Junior doctors have a tremendous influence on patient care, making their involvement critical in combating AMR. By encouraging effective antimicrobial stewardship and adherence to recommendations, you may help to reduce the development and spread of antibiotic resistance. This involves administering antibiotics only when absolutely required, selecting the best antibiotic based on local resistance trends, and ensuring the proper dosage and duration of therapy.

1.- **Education and Training:** Junior doctors must pursue ongoing education and training in AMR-related areas. Staying current on the newest research, guidelines, and best practices allows them to deliver evidence-based care and make educated antimicrobial decisions. Continuous education enables junior physicians to advocate for appropriate prescription practices and urge their colleagues to do the same.

2.- **Research and Innovation:** Participating in research and monitoring programs enables student doctors to track AMR trends and contribute to the collection of useful data. By actively participating in research, people may assist in identifying local resistance patterns, detecting emerging resistance, and informing policy choices. Junior doctors can work with experienced healthcare professionals, microbiologists, and epidemiologists to develop surveillance systems and understand AMR dynamics.



THE RISING THREAT: ANTIMICROBIAL RESISTANCE AND ITS IMPACT ON GLOBAL HEALTH

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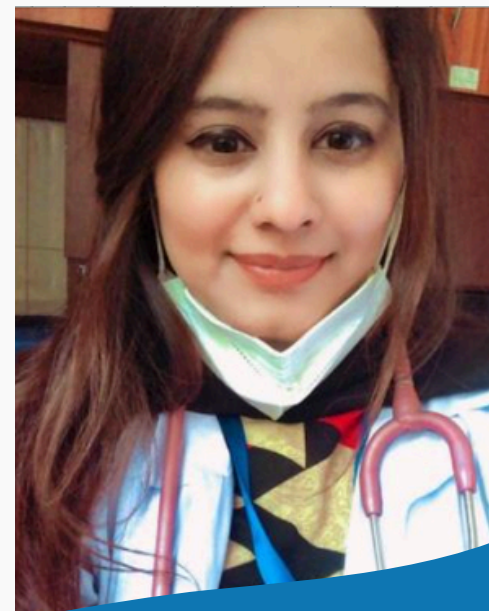
5.-Patient Education: Patient and public education is another critical component in addressing AMR. Junior doctors can educate patients on the proper use of antimicrobials, highlighting the dangers of AMR and the significance of completing required training. They can also encourage preventative measures, such as immunization and proper cleanliness, to lessen the need for antimicrobial therapy.

6.- Collaboration and Interdisciplinary Approach: Collaborative efforts between junior doctors, senior healthcare professionals, policymakers, and other stakeholders are critical for effectively combatting AMR. Multidisciplinary collaboration enables the interchange of knowledge, ideas, and best practices. It permits the creation of complete plans that include antimicrobial stewardship, infection prevention, and control techniques.

7.- Leadership and Advocacy: Junior doctors can take on leadership positions and advocate for AMR awareness and action in their own healthcare institutions and professional communities. They can join groups or organizations dedicated to antimicrobial stewardship and AMR, and actively shape policies and standards.

8.- Infection Prevention and Control: Junior doctors have an important role in advocating and executing infection prevention and control techniques that minimize the spread of resistant illnesses. They can actively engage in infection control committees, teach healthcare personnel about good hygiene techniques, and help design protocols and recommendations.

9.- Community Engagement: By interacting with the local community, junior doctors can expand their impact outside the hospital. They can create awareness campaigns, deliver speeches in schools or community centers, and work with public health groups to educate the public about AMR, antimicrobial usage, and preventative measures.



THE RISING THREAT: ANTIMICROBIAL RESISTANCE AND ITS IMPACT ON GLOBAL HEALTH

10.- **Research and Quality Improvement:** Junior doctors can contribute to AMR-related research projects and quality improvement activities. They can conduct research to assess the efficacy of antimicrobial stewardship programs, look into local resistance patterns, and assess the effects of measures targeted at reducing antibiotic usage.

11.- **Lifelong Learning and Professional Development:** Junior doctors should be committed to lifetime learning and ongoing professional development in the field of AMR. They can attend conferences, workshops, and seminars about AMR, join relevant professional groups, and remain up to speed on the newest research and guidelines.

Pakistan, in collaboration with the World Health Organization (WHO), acknowledges the critical need to fight antimicrobial resistance (AMR). The Pakistani government has committed to addressing this issue as a priority, acknowledging AMR as a severe health catastrophe impacting the country. The Ministry of National Health Services Regulations and Coordination collaborates with provinces, the veterinary industry, and health development partners to improve national capability in a variety of sectors.

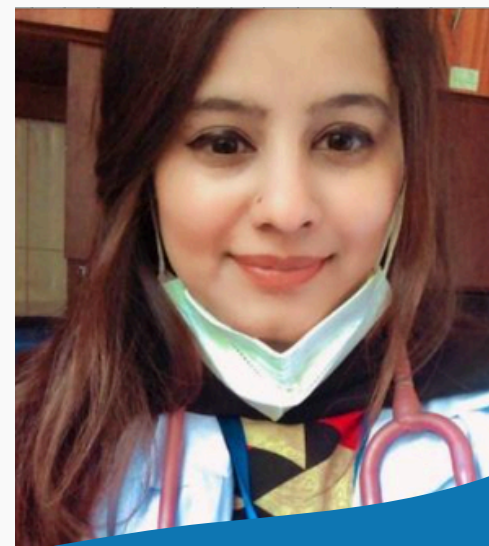
Efforts are being undertaken to increase surveillance and laboratory diagnoses, promote the rational use of antimicrobials, improve infection prevention and control procedures, and educate people about AMR prevention and control. These activities are intended to address AMR holistically and strategically.

To lead these efforts, Pakistan collaborated with WHO to create a national action plan. This action plan will be converted into province operational plans, ensuring that the strategies and interventions are successful and targeted.

These initiatives indicate Pakistan's commitment to combating AMR and emphasize the necessity of cross-sectoral coordination among government agencies, healthcare providers, and the public. Pakistan hopes to increase its capacity to fight AMR and ensure the efficacy of antimicrobial medications for future generations through coordinated efforts and WHO cooperation.

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HEALTH AS A RIGHT: CHALLENGES AND OPPORTUNITIES FOR THE MEXICAN HEALTH SYSTEM FROM THE PERSPECTIVE OF A YOUNG DOCTOR

Abstract:

This essay explores the challenges and opportunities faced by young doctors in Mexico within the context of the country's health system. It discusses the fragmentation, low coverage, and insufficient financing that characterize the system, emphasizing the disparities between the public and private sectors. The essay reflects on the author's role as a young doctor and proposes actions to contribute to positive change. The goal is to shed light on the complexities of Mexico's health system and encourage fellow young doctors to actively participate in its transformation.

Introduction:

The health system of Mexico consists of two sectors: public and private. The public sector is integrated by various institutions that provide health services to different groups of the population according to their work status and social security. These institutions include the Mexican Social Security Institute (IMSS), the Institute of Security and Social Services for State Workers (ISSSTE), Petróleos Mexicanos (PEMEX), the Armed Forces, the Navy Secretariat, and other state services, as well as the Health Secretariat (SSA) and programs that serve the population without social security. On the other hand, the private health system is financed by the payments made by patients when they are treated, either by out-of-pocket spending or through private health insurance. [1,2].

Methods:

As a young doctor, I face the challenges of this system with concern but also hope. I believe there is much to do to improve Mexico's health system and make the right to health effective for all Mexicans. I recognize my social responsibility to contribute to this purpose, armed with the tools and skills necessary. Some proposed actions include promoting comprehensive reform of the health system for universality, equity, quality, and efficiency. Additionally, active participation in preventing and controlling non-communicable chronic diseases is crucial, focusing on education, early diagnosis, and timely treatment. Fostering citizen participation and accountability in the health sector is another key aspect, allowing users to express their needs, demand their rights, and evaluate service quality. Lastly, a commitment to constantly updating my knowledge and professional skills is essential to providing excellent care based on scientific evidence and respect for human dignity. [1-3].



MENTAL HEALTH AND WELL-BEING OF JUNIOR DOCTORS: RECOGNIZING AND MANAGING BURNOUT

Results:

The potential results of implementing these proposed actions are promising. Comprehensive reform could lead to increased universality, equity, quality, and efficiency of health services. Active participation in disease prevention might contribute to a reduction in the prevalence and impact of chronic diseases. Fostering citizen engagement can empower users to express their needs, demand their rights, and evaluate service quality. Continuous professional development ensures that doctors provide excellent care based on scientific evidence and respect for human dignity.

Discussion:

Implementing the proposed actions for health system reform in Mexico faces challenges such as bureaucratic hurdles, resource constraints, and potential resistance within the healthcare system. Achieving comprehensive reform requires strategic planning and political will. Disease prevention efforts need to navigate cultural and socioeconomic disparities. Fostering citizen engagement demands effective communication channels, education programs, and overcoming potential resistance. Continuous professional development, vital for maintaining high standards, may face integration challenges due to time constraints. Despite these challenges, a collective and holistic approach by young doctors can contribute to a more just, humane, and effective health system that upholds the right to health for all citizens.

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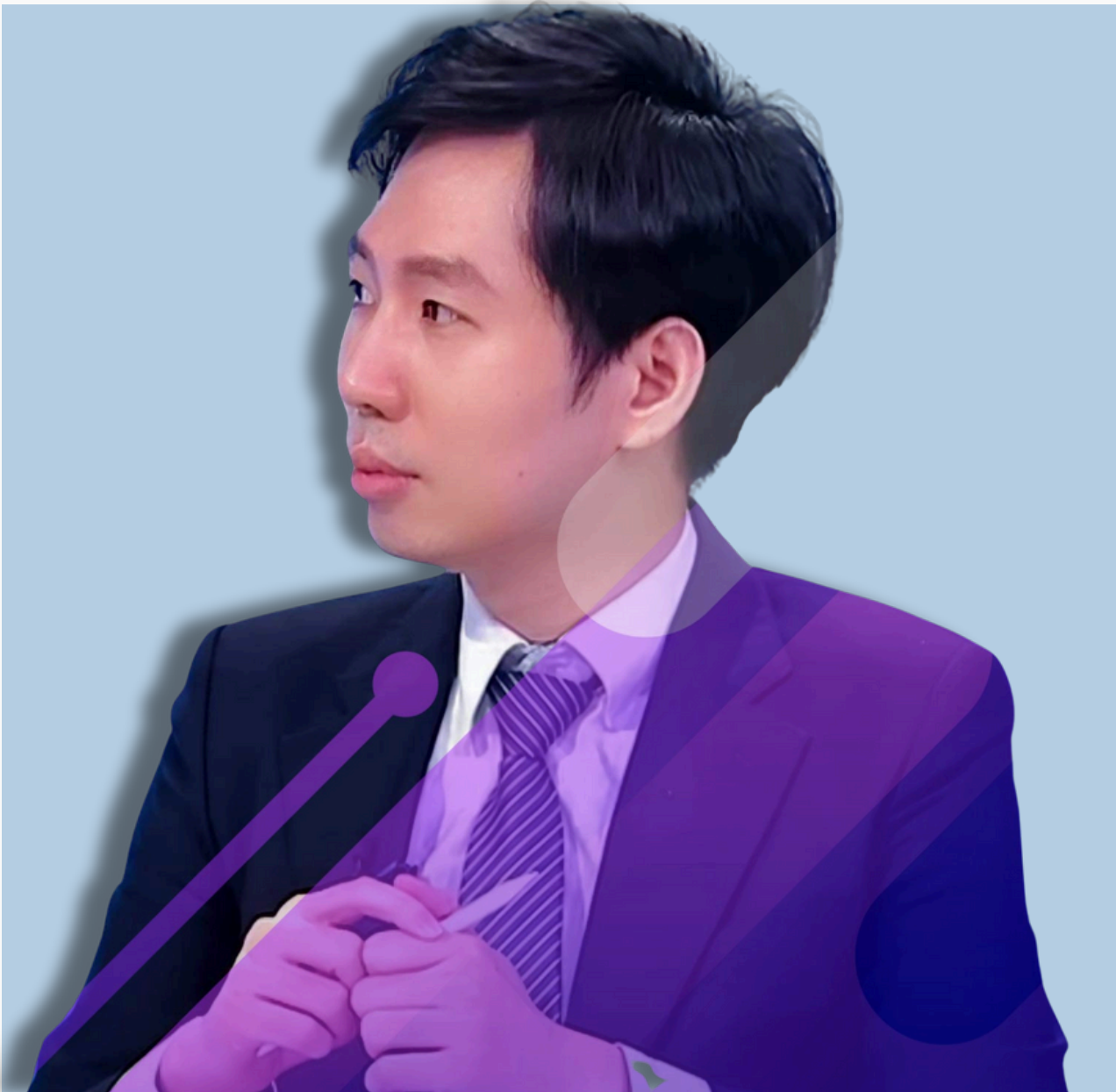
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NAVIGATING THE ANTIMICROBIAL RESISTANCE LANDSCAPE IN TAIWAN: CHALLENGES AND INNOVATIONS

Introduction

In the realm of public health, antimicrobial resistance (AMR) poses a formidable challenge, one that Taiwan has been actively confronting. This article delves into the multifaceted aspects of AMR in Taiwan, encompassing antibiotic usage patterns, the impact of the COVID-19 pandemic, and the nation's strategic responses.

Antibiotic Usage and AMR in Taiwan Antibiotic Consumption Patterns:

Taiwan, like many countries worldwide, has seen a significant rise in antibiotic use over recent years. This increase is not without consequence. The correlation between high antibiotic consumption and the emergence of AMR is a growing concern. In Taiwan, the trend of antibiotic use reflects a complex interplay of healthcare practices, patient expectations, and prescription policies. Studies indicate a notable reliance on antibiotics for respiratory and other common infections, often leading to over-prescription. The consequent impact on AMR is evident from the rising rates of drug-resistant strains of bacteria, such as MRSA (Methicillin-resistant *Staphylococcus aureus*).

The correlation between antibiotic usage and AMR:

This increase in antibiotic consumption directly correlates with a rise in AMR. The emergence of multidrug-resistant organisms (MDROs) has become a significant public health concern. For instance, the prevalence of extended-spectrum β -lactamase (ESBL)-producing Enterobacteriaceae has dramatically increased in Taiwan's hospitals and communities. This trend highlights the urgent need for strategic interventions in antibiotic prescription practices.

The government and healthcare organizations have begun addressing this through stricter prescription guidelines and public awareness campaigns. These efforts aim to educate both medical professionals and the public about the judicious use of antibiotics.

Section 2: Impact of COVID-19 on AMR Patterns

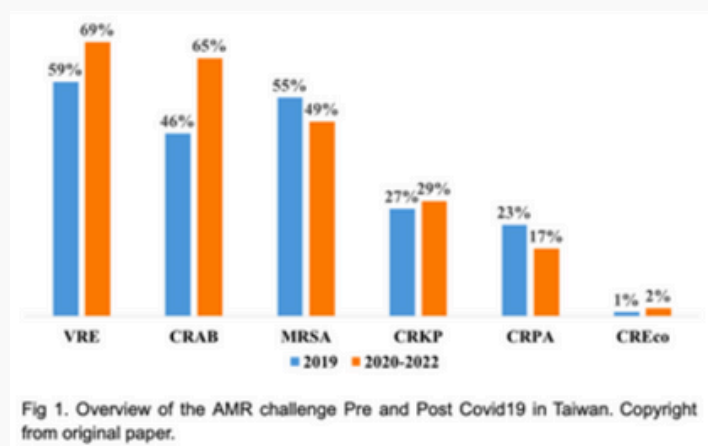
AMR Patterns During the Pandemic: The COVID-19 pandemic has had a profound impact on healthcare systems globally, and Taiwan is no exception. During this period, there was a noticeable shift in the patterns of antimicrobial resistance. The heightened use of antibiotics as a precautionary measure against secondary bacterial infections in COVID-19 patients has led to an altered antimicrobial landscape. The research indicates a rise in resistant strains, particularly in hospital settings. This scenario underscores the challenge of balancing immediate patient care needs with long-term public health objectives in crisis situations.



NAVIGATING THE ANTIMICROBIAL RESISTANCE LANDSCAPE IN TAIWAN: CHALLENGES AND INNOVATIONS

Comparative Analysis of AMR Pre and Post COVID-19:

A comparative analysis of AMR data before and during the pandemic reveals significant shifts. For instance, the usage of certain antibiotics increased markedly during the pandemic, and correspondingly, certain bacteria showed elevated resistance levels. This comparison is crucial for understanding how the pandemic has necessitated a re-evaluation of antibiotic use protocols. The increased resistance to commonly used antibiotics during the pandemic period is a call to action for healthcare providers to adapt and innovate in their approach to antibiotic prescription. A comprehensive assessment of antibiotic resistance (AMR) patterns in Central Taiwan during the COVID-19 pandemic conducted a retrospective analysis of clinical samples collected before and after the pandemic, identifying six prevalent bacteria and their resistance patterns. The prevalence of resistant bacteria, such as vancomycin-resistant *Enterococcus* and carbapenem-resistant *Acinetobacter baumannii*, increased during the pandemic, highlighting the impact of COVID-19 on AMR. The study underscores the critical importance of understanding AMR prevalence for infection prevention and policy formulation. Further research is needed to explore the relationship between AMR and infection severity in COVID-19 patients. The prevalence rates of vancomycin-resistant *Enterococcus* (VRE) and carbapenem-resistant *Acinetobacter baumannii* (CRAB) before and after the COVID-19 pandemic show a notable increase during the pandemic period. Prior to the COVID-19 pandemic, the overall prevalence rate of VRE was 59%, and it increased to 69% during the pandemic. Similarly, for CRAB, the prevalence rate was 46% before the COVID-19 pandemic and rose to 65% during the pandemic. This data indicates a significant rise in the prevalence of both VRE and CRAB during the COVID-19 pandemic. The increased prevalence of resistant bacteria during the COVID-19 pandemic in Central Taiwan has significant implications for public health and the management of infections. The findings reveal a concerning rise in antimicrobial resistance (AMR) among common bacterial pathogens, including *Acinetobacter baumannii* (CRAB), vancomycin-resistant *Enterococcus* (VRE), *Klebsiella pneumoniae* (CRKP), and *Escherichia coli* (CREco), with respective increases of 19%, 10%, 2%, and 1% in their resistance. The prevalence of resistant strains of *Staphylococcus aureus* and *Pseudomonas aeruginosa*, however, showed a decrease of 6% each.



NAVIGATING THE ANTIMICROBIAL RESISTANCE LANDSCAPE IN TAIWAN: CHALLENGES AND INNOVATIONS

These shifts suggest that the COVID-19 pandemic has exacerbated the challenge of AMR in the region. A primary concern is the potential for these resistant bacteria to complicate the treatment of COVID-19 patients, especially those with bacterial coinfections, which have been documented both in Taiwan and globally. High levels of antibiotic prescribing during the pandemic, despite a low prevalence of bacterial coinfections in COVID-19 patients, have been observed and could contribute to further escalation of AMR. This situation underscores the critical need for judicious antibiotic use and the implementation of effective antimicrobial stewardship programs. Moreover, the rise in AMR compromises patient outcomes, potentially leading to increased morbidity, mortality, longer hospital stays, and higher healthcare costs. Treating infections caused by resistant bacteria often requires the use of last-resort or more potent antibiotics, which may have more significant side effects and are typically more costly. From a broader perspective, the increase in AMR during the COVID-19 pandemic stresses the importance of integrating AMR surveillance and management into pandemic preparedness and response plans. It highlights the need for robust infection control measures, not only to manage viral pandemics but also to prevent the spread of bacterial pathogens and contain AMR. To address these challenges, further research is warranted to explore the correlation between AMR and the severity of infections in COVID-19 patients, aiming to develop targeted strategies to mitigate the impact of resistant infections. Healthcare providers in Central Taiwan and similar regions should be aware of these trends to adapt treatment protocols appropriately and consider AMR patterns in their clinical decision-making processes.

The Need for a National AMR Action Plan:

There is a pressing need for a strategic framework that encompasses surveillance, prevention, and control of AMR. Such a plan should incorporate robust measures for monitoring, rapid response to AMR threats, and public awareness campaigns. Collaboration across various sectors, including healthcare, agriculture, and education, is vital. The plan should also align with global health initiatives, reflecting a commitment to reducing AMR both locally and internationally.

Role and Functionality of Taiwan Antimicrobial Resistance Network (TARN):

The Taiwan Antimicrobial Resistance Network plays a pivotal role in consolidating and disseminating information related to AMR. Its comprehensive database aids in tracking resistance patterns, guiding policy decisions, and fostering research collaborations. TARN's functionality extends beyond data collection; it serves as a crucial platform for a hub for collaboration and strategy development in the fight against AMR. By providing real-time data and analysis, it empowers healthcare professionals and policymakers to make informed decisions.



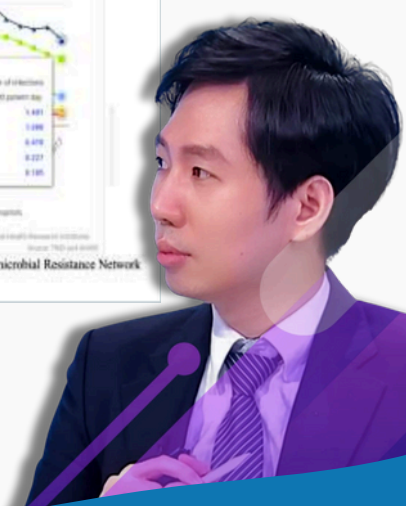
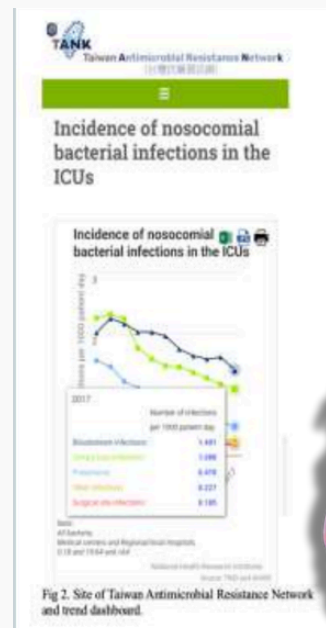
NAVIGATING THE ANTIMICROBIAL RESISTANCE LANDSCAPE IN TAIWAN: CHALLENGES AND INNOVATIONS

Description of the Taiwan Hospital Infection Control and AMR Monitoring System (THAS)

The Taiwan Hospital Infection Control and AMR Monitoring System (THAS) is a critical tool in managing hospital infections and antimicrobial resistance. This system offers a comprehensive platform for tracking and analyzing infection rates and antimicrobial resistance patterns in hospitals. It enables healthcare providers to effectively monitor infection control measures and adjust strategies as needed. The integration of THAS into the healthcare system represents a significant step in enhancing Taiwan's ability to manage and mitigate the risks associated with AMR.

Conclusion

In conclusion, Taiwan's multifaceted approach to combating antimicrobial resistance showcases a blend of innovation, public health policy, and global collaboration. The challenges are significant, but the strategies and systems like TARN and THAS highlight the nation's commitment to addressing this global health crisis. Continuous efforts in research, policy development, and public education are essential to sustain progress and improve health outcomes both within Taiwan and in the broader international community.



NAVIGATING THE ANTIMICROBIAL RESISTANCE LANDSCAPE IN TAIWAN: CHALLENGES AND INNOVATIONS

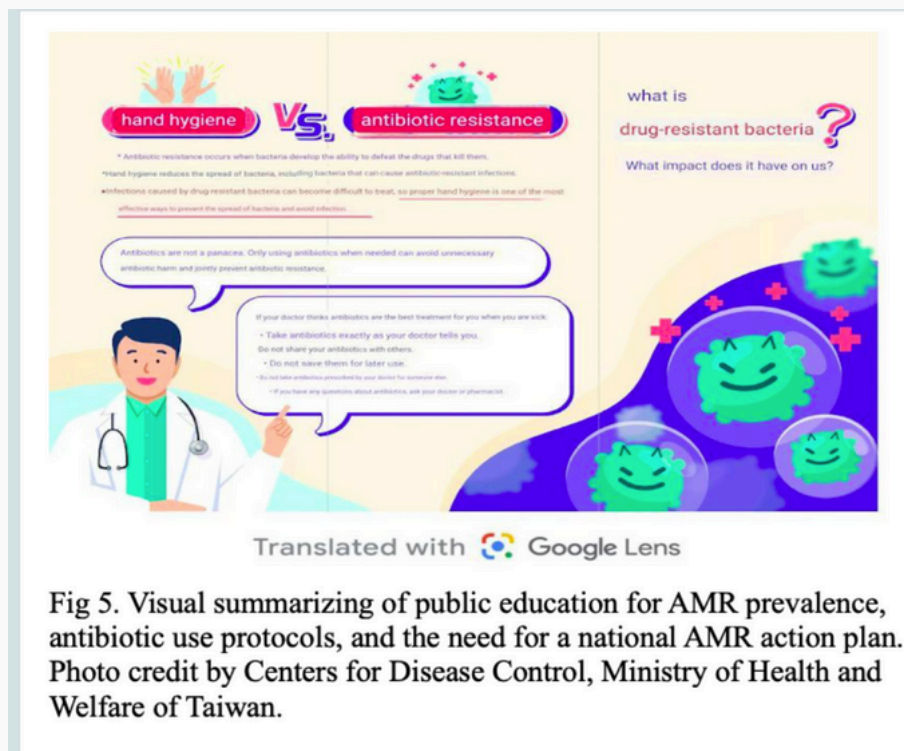


Fig 5. Visual summarizing of public education for AMR prevalence, antibiotic use protocols, and the need for a national AMR action plan. Photo credit by Centers for Disease Control, Ministry of Health and Welfare of Taiwan.

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ANTIMICROBIAL RESISTANCE IN INDIA

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ANTIMICROBIAL RESISTANCE IN INDIA

Introduction:

Antimicrobial resistance (AMR) poses a significant public health challenge in India, where elevated rates of resistance to antimicrobial agents in both humans and food animals have been observed [1]. The country is experiencing a surge in infections caused by antibiotic-resistant Gram-positive and Gram-negative microbes, exemplified by *Escherichia coli*'s resistance rate surpassing 80% for specific antibiotic classes [2][3]. Notably, India reported the initial identification of the NDM-1 gene, a factor that swiftly spread to other regions. The NDM-1 gene, also known as New Delhi metallo-beta-lactamase 1, confers resistance to a broad range of antibiotics, including carbapenems, considered last-resort antibiotics for many infections. [4]. The widespread use of antibiotics, coupled with the prevalent use of fixed-dose combinations for example, combinations of amoxicillin with clavulanic acid, which are commonly used in India, contributes significantly to the escalating problem of AMR [5]. Globally, the impact of AMR is staggering, with an estimated 4.95 million deaths in 2019 attributable to drug-resistant infections, including 1.27 million directly linked to bacterial AMR [6]. In Indian healthcare settings, studies reveal a prevalence of 59% of Gram-negative species infections, with *Escherichia coli* being the most frequently isolated Gramnegative species [7]. Additionally, research in rural communities highlights limited awareness about antimicrobial medicines and high instances of antibiotic purchase without prescriptions [8]. Pilot studies underscore substantial antibiotic resistance among pathogens isolated from urine, wound, and blood cultures conducted in India. [9]. Investigations into *Vibrio cholerae* in India indicate increasing resistance to older and newer antibiotics [10]. In India, the multifaceted issue of AMR is influenced by several specific risk factors, encompassing poor prescription practices, self-medication, over-the-counter drug sales, and misuse of antibiotics in agriculture and livestock sectors [11][12]. The socio-economic and cultural context introduces unique challenges, such as using sludge in agriculture and improper disposal of livestock animals, contributing to the spread of AMR [13].



ANTIMICROBIAL RESISTANCE IN INDIA

Initiatives taken:

India has undertaken multiple initiatives to combat AMR, notably the National Action Plan for Antimicrobial Resistance (NAP-AMR). This initiative aims to enhance the governance and operationalization of AMR programs by incorporating strategies such as resilient leadership, multistakeholder coordination, innovative program design, and data-driven monitoring across various sectors, including plant/agricultural, animal husbandry, human health, and pharmaceuticals [14]. Another significant effort is the National Policy for Containment of Antimicrobial Resistance, which encompasses measures like the introduction of Schedule H1 for prescription antibiotics, hospital-based surveillance systems, and color-coding of certain antibiotics for restricted access [15]. The Indian Council of Medical Research (ICMR) has launched the Antibiotic Stewardship, Prevention of Infection & Control (ASPIC) program, employing digital technology to identify opportunities and challenges and promote antimicrobial stewardship practices in hospitals [16]. These initiatives align with national declarations such as the Jaipur Declaration and the Chennai Declaration, emphasizing strategies like prohibiting over-the-counter antibiotic sales, monitoring in-hospital antibiotic usage, and establishing national AMR surveillance systems in healthcare settings. The research underscores the importance of delving into the mechanisms of AMR, including rapid antimicrobial susceptibility diagnostics, to guide effective prescribing. Additionally, there is a call for incentivized preclinical research and early clinical development to bolster the discovery of new antimicrobial agents [17].



ANTIMICROBIAL RESISTANCE IN INDIA

Conclusion:

Physicians must adopt a proactive approach to the escalating challenge of antimicrobial resistance (AMR). This necessitates the promotion of responsible antibiotic prescribing practices, implementation of antimicrobial stewardship programs, continuous engagement in education, and active support for national and global initiatives. Adhering to evidence-based guidelines, exercising judicious use of antibiotics, and raising awareness about the necessity of antibiotic prescriptions only when clinically warranted, are imperative aspects of our commitment. Actively participating in initiatives like the Antibiotic Stewardship, Prevention of Infection & Control (ASPIC) program is crucial to promoting the prudent use of antimicrobials whilst ensuring optimal patient outcomes. Continuous education on AMR is vital for making well-informed decisions in clinical practice. Collaborative efforts, resilient leadership, and multi-stakeholder coordination are integral to successful initiatives. Advocacy for increased research and innovation, including support for studies on mechanisms of resistance and rapid antimicrobial susceptibility diagnostics is paramount. As physicians, our commitment to addressing the formidable challenge of AMR in India, our region, and worldwide is pivotal. Proactive measures are required in light of escalating resistance rates observed in humans and food animals resulting in infections caused by antibiotic-resistant microbes. Patient education plays a crucial role in combating AMR, necessitating active engagement in educating patients about completing prescribed antibiotic courses, avoiding self-medication, and understanding the consequences of antibiotic misuse in India.



ANTIMICROBIAL RESISTANCE IN INDIA

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ANTIMICROBIAL RESISTANCE (AMR): A SIGNIFICANT PUBLIC HEALTH CHALLENGE IN ALGERIA

Antimicrobial resistance (AMR) is a significant public health challenge in Algeria. The Ministry of Health of Algeria has reported increasing rates of AMR due to the overuse and misuse of antibiotics in both human medicine and agriculture, along with increasing rates of methicillin-resistant *Staphylococcus aureus* (MRSA) and multidrug-resistant (MDR) tuberculosis (TB). TB and its multidrug-resistant form (MDR-TB) are significant health challenges in Algeria. A study covering the period from 2008 to 2017 reported 215,581 TB cases in Algeria, with an average annual rate of about 57 cases per 100,000 people. This high incidence highlights the ongoing public health challenge posed by both TB and its drug-resistant strains in the country [1].

Additionally, recent studies in Algeria highlight the growing challenge of antimicrobial resistance (AMR). For instance, a study utilizing whole-genome sequencing (WGS) to analyze *Mycobacterium tuberculosis* complex (MTBC) stains revealed a concerning trend; 25.6% of the 82 isolates examined were drug-resistant, encompassing both multidrug-resistant (MDR) and pre-extensively drug-resistant (XDR) TB strains. This finding emphasizes the gravity of the AMR crisis in Algeria, which is not limited to tuberculosis but extends to various pathogens, posing a significant public health threat. The situation demands urgent attention and action to develop effective strategies for managing and mitigating AMR in the region.[2]

Algeria has taken proactive steps to combat antimicrobial resistance (AMR) through various national efforts and strategies:

1. National TB Program: One notable strategy includes the withdrawal of TB medications from private pharmacies and providing free diagnostics and treatment for TB patients. This is supported by the establishment of the National TB Laboratory, enhancing the national response to tuberculosis and its drug-resistant forms [3].
2. Identification of Resistance Genes: Efforts have been made to identify various resistance genes against plasmid cephalosporinases, carbapenems, aminoglycosides, and fluoroquinolones, thereby informing targeted treatment strategies [4].



ANTIMICROBIAL RESISTANCE (AMR): A SIGNIFICANT PUBLIC HEALTH CHALLENGE IN ALGERIA

Algeria has initiated several steps to tackle AMR, as reported by the World Health Organization (WHO) and detailed in the 2021 TrAcSS country report. The TrAcSS 2021 Country Report on Algeria highlights the nation's commendable efforts in combating AMR. It details Algeria's successful development and implementation of a National Action Plan (NAP) on AMR, involving multisectoral collaboration across human, animal, and plant health sectors. The country has established stringent regulatory frameworks to control the prescription and sale of antimicrobials. Notably, Algeria uses AMR data effectively to inform its strategies, demonstrating a commitment to evidence-based policymaking. The report offers a five-year assessment of Algeria's progress, emphasizing improvements in AMR governance, awareness, surveillance, and infection control. While acknowledging these successes, the report also suggests areas for further development, including enhancing AMR education and monitoring antimicrobial consumption. Overall, Algeria's approach sets a positive example in the African region for managing AMR challenges [5]. In 2020, Algeria joined the Global Antimicrobial Resistance Surveillance System (GLASS) for Antimicrobial Resistance (AMR) and/or Antimicrobial Consumption (AMC), demonstrating its commitment to strengthening national surveillance systems for AMR [6].

Given the challenges of AMR in Algeria there is a pressing need for enhanced efforts in both awareness and policy implementation. Medical student associations like IPSF Algeria and IFMSA Algeria play a pivotal role in awareness campaigns. Their efforts include conducting educational sessions in schools, mosques and community centers, utilizing social media for campaigns, and organizing workshops and seminars for healthcare workers and students. In February 2018, the ARPEC association, a chapter of the International Pharmaceutical Students Federation, organized an awareness day on antimicrobial resistance at Batna airport, Algeria. This event sought to educate the public about the growing threat of antibiotic resistance and to promote the responsible use of antibiotics. Additionally, IFMSA Algeria organized a sensitivity campaign on the dangers of random drug use during the same month under the name "the drug is not sweet"



ANTIMICROBIAL RESISTANCE (AMR): A SIGNIFICANT PUBLIC HEALTH CHALLENGE IN ALGERIA

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