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for Animal Health
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Tackling Antimicrobial Resistance Across Sectors: The Value of the Antimicrobial Resistance Multi- Partner Trust Fund”

02 September 2024, 13h30-15h00
Natal, Brazil

Organized by:

Quadripartite-FAO, UNEP, WHO and WOAH



In-person Participation: Holiday Inn Natal, Natal
Virtual Participation: Registration link to receive event joining link

[click here](#)

Please write to AMR-MPTF@who.int
if you have any questions



G20 Fourth Health Working Group Meeting
AMR MPTF co-branded event

Tackling Antimicrobial Resistance Across Sectors: The Value of the Antimicrobial Resistance Multi-Partner Trust Fund

13h30-15h00 (BRT), 18h30-20h00 (CET)
02 September 2024,
Natal, Brazil



PRELIMINARY PROGRAMME

Opening

- Dr. Montserrat Arroyo, Chair, AMR Multi-Partner Trust Fund (MPTF)
- Dr. Jean Pierre Nyemazi, Director a.i., Quadripartite Joint Secretariat on AMR
- Mr. Anthony Darcovich, Member, Task Force of AMR Survivors

Results on the ground – AMR MPTF support to National Action Plan implementation

- Dr Tep Bengthay, Deputy Director, Department of Animal health and Veterinary public health, General Directorate of Animal Health and Production, Ministry of Agriculture, Forestry and Fisheries, Cambodia
- H.E Dr Fikru Regassa, State Minister, Ministry of Agriculture, Ethiopia
- Dr. Yanti Herman, Director, Quality Health Services, Ministry of Health, Indonesia
- Dr. Ronnie Gavilán Chávez, Technical Secretary, Multisectoral Commission to antimicrobial resistance, Peru
- Dr. Tapfumane Mashe, AMR Project Coordinator, Zimbabwe

The value of working together and ambition ahead

- Dr. Nicola Watt, Component Lead, International Collaboration, Global Programme Pandemic Prevention and Response, One Health, GIZ, Germany
- Ms. Holly Rhyner-Jones, Head, Fleming Fund, UK

Questions/Discussion

Closing

- Ms. Junxia Song, Senior Animal Health Officer, FAO- Representative on behalf of Quadripartite organizations






Opening remarks

Dr. Montserrat Arroyo

Chair, AMR MPTF

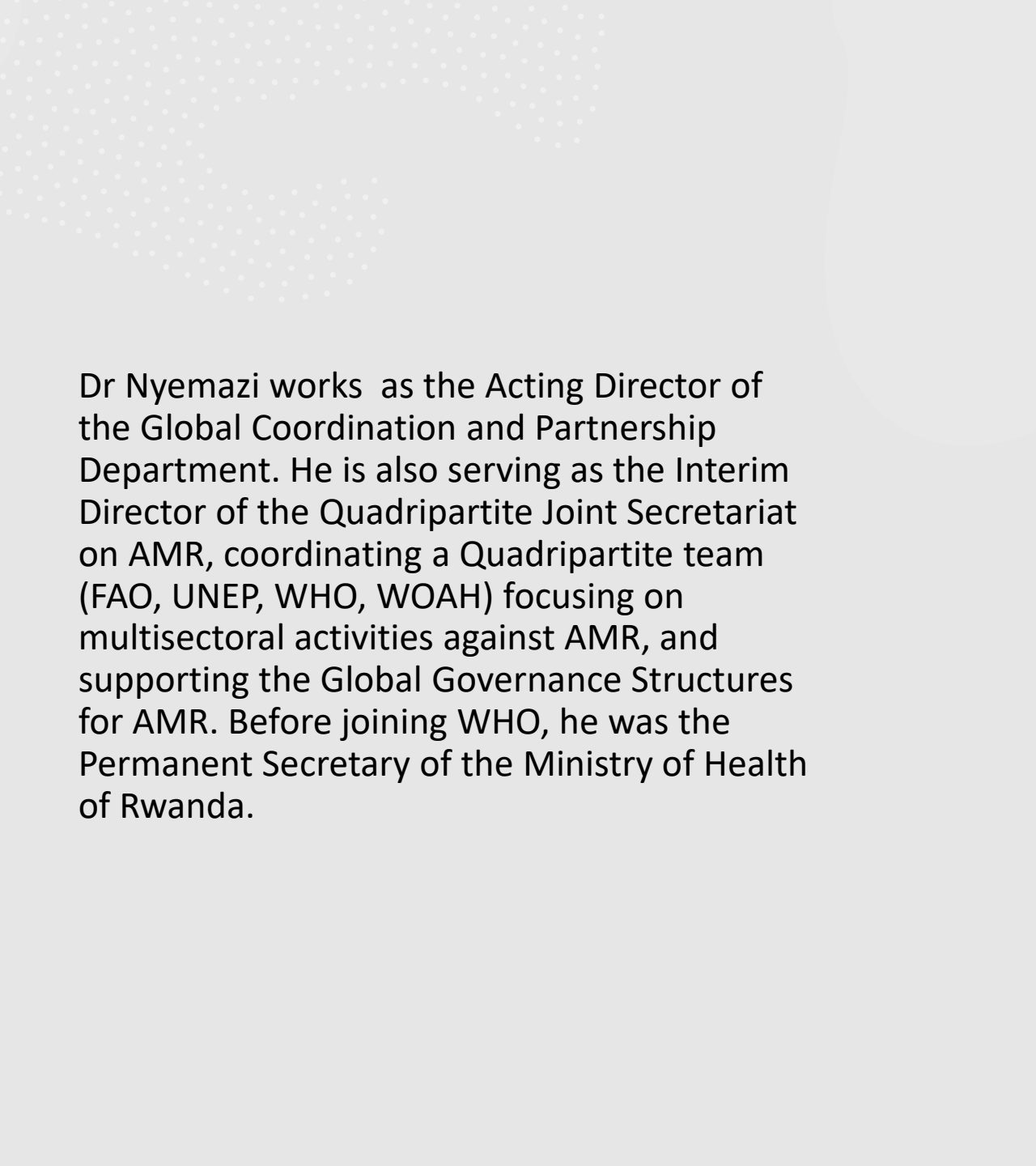
Dr Montserrat Arroyo Kuribreña has been serving as a Deputy Director General at the World Organisation for Animal Health. Prior to this role, Dr Arroyo previously served the Organisation as Subregional Representative for Central America. Throughout her career, Dr Arroyo has accumulated vast experience in global animal health affairs through her various positions within the Veterinary Services in Mexico. Dr Arroyo is also currently serving as the Chair of AMR Multi Partner Trust Fund.

Dr. Montserrat Arroyo's video record [here](#)



Dr. Jean Pierre Nyemazi

Director a.i., Quadripartite Joint Secretariat



Dr Nyemazi works as the Acting Director of the Global Coordination and Partnership Department. He is also serving as the Interim Director of the Quadripartite Joint Secretariat on AMR, coordinating a Quadripartite team (FAO, UNEP, WHO, WOAHA) focusing on multisectoral activities against AMR, and supporting the Global Governance Structures for AMR. Before joining WHO, he was the Permanent Secretary of the Ministry of Health of Rwanda.

Mr. Anthony Darcovich Member, Task Force of AMR Survivors

Mr. Darcovich is a healthcare strategy consultant, and patient advocate with experience across infectious disease and healthy longevity. Having experienced an antimicrobial resistant infection himself - and undergoing 19 surgeries on dominant shoulder as a result - he brings a unique perspective advocating for his own health and the changes needed in the broader healthcare landscape. He is also a member of the WHO Task Force of AMR Survivors.

WHO Task Force of AMR Survivors

AMR is invisible.

I am not.

www.who.int/groups/task-force-of-amr-survivors

#AMRsurvivors

Country panel:
Results on the ground – AMR MPTF
supporting National Action Plan
implementation

CAMBODIA

Dr Tep Bengthay
Deputy Director,
Department of Animal
health and Veterinary public
health, General Directorate
of Animal Health and
Production, Ministry of
Agriculture, Forestry and
Fisheries, Cambodia

BengThay Tep has pursued her education in Agriculture, earning a Doctorate in Agriculture Science (Reproductive Science) from Nagoya University in Japan, along with a Master's and Bachelor's degree in Animal Sciences and Veterinary Medicine from the Royal University of Agriculture, Cambodia. Over the past 34 years, she has worked in the fields of animal health, production, and livestock value chain development. Her experience includes market data collection and analysis, as well as training farmers on agricultural market information. Since 2016, she has been involved in addressing Antimicrobial Resistance and rabies control through a One Health approach, working collaboratively with various ministries and organizations.



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SUSTAINABLE
DEVELOPMENT
GOALS



Addressing Antimicrobial Resistance in Single to multi Sectors using One Health

G20 Fourth Health Working Group Meeting
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G20
BRASIL 2024

BUILDING A JUST WORLD
AND A SUSTAINABLE PLANET





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SUSTAINABLE
DEVELOPMENT
GOALS

2017

AMR TWG under MAFF
established

- National multi stakeholder workshop on AMR to outline the development of a OH NAP
- High Level Tripartite Meeting on Multi-sectoral Action Plan (MSAP) to Combat AMR

2019

- Endorsement and launch of MSAP by MAFF, MOE and MOH

2021

- Draft Inter-Ministerial Coordination Committee (IMCC) & TOR on AMR
- Consultation on M&E Framework of MSAP
- Situation Analysis on AMR, MAFF
- Discussion of the implementation plan of the MSAP (Agriculture)
- Development of AMR Communication Strategy

1

2

3

4

5

6

7

- Engagement of Agriculture sector AMR- TWG MOH
- 03 national multi-stakeholder workshops on AMR by Agri. Sector
- Consolidated OH NAP supported by Tripartite.
- OH joint AMU/AMR roadmap 2017 to 2021
- AMR Inter-ministerial declaration/commitment

- National multi stakeholder workshop on AMR to outline the development of a OH NAP
- High Level Tripartite Meeting on Multi-sectoral Action Plan (MSAP) to Combat AMR

- Endorsement the tripartite proposal for the AMR-MPTF project by MAFF, MOE and MOH

- OH Joint Action Plan for the Future of Cambodia - Aligning Human, Animal, and Environmental Health
- AMR PMP (Progressive Management Partway)

2024

Revised AMR MSAP by
MAFF, MOE and MOH
2024-2028

2016

2018

2020

2022

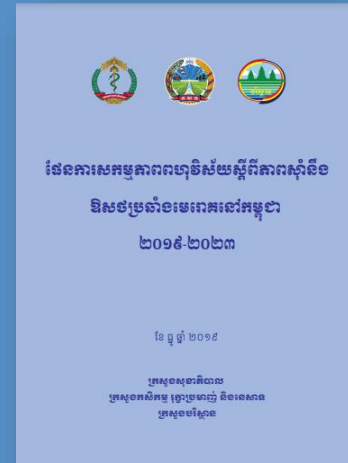




Multi-sectoral NAPs aligned with global recommendations and standards



November 2017



December 2019 and Revised in 2024



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How has the AMR MPTF supported national efforts to address AMR and driven successful progress in NAPs implementation in Cambodia?

MPTF's activities Linked to MSAP

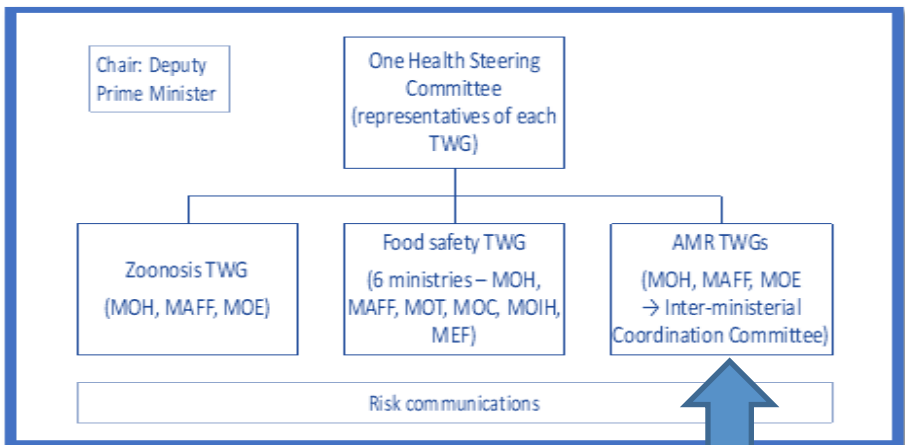
- SO3. To develop and enforce regulations and strategies to ensure access to and rational use of antibiotics in human health, animal health and agriculture.
- SO4. To reduce the incidence of infection through effective sanitation, hygiene, food safety, waste management and infection prevention measures.
- SO5. Strengthen communication for public education and awareness

MPTF's Impacts

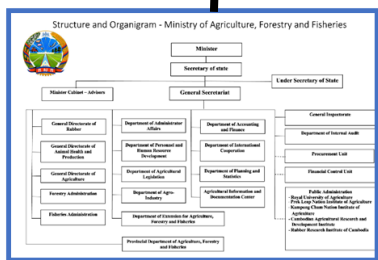
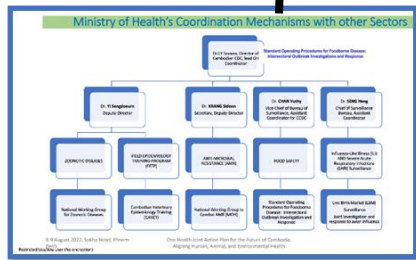
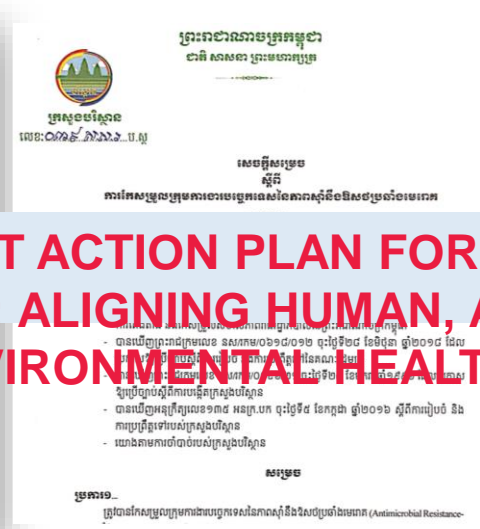
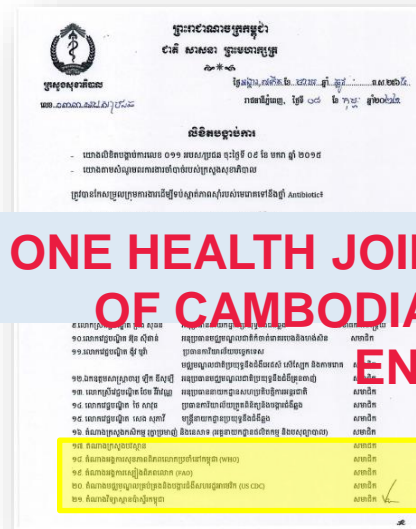
1. Cambodia makes explicit commitments (policies, mechanism, investment plans, programmes, legal frameworks, resources allocation) on AMR
2. Antimicrobial use associated behaviors and practices sustainably improved in critical sectors



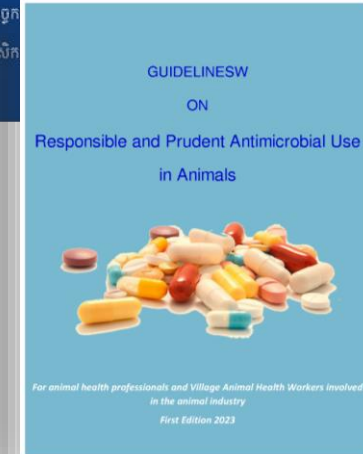
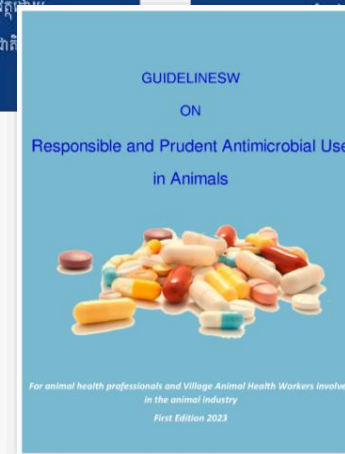
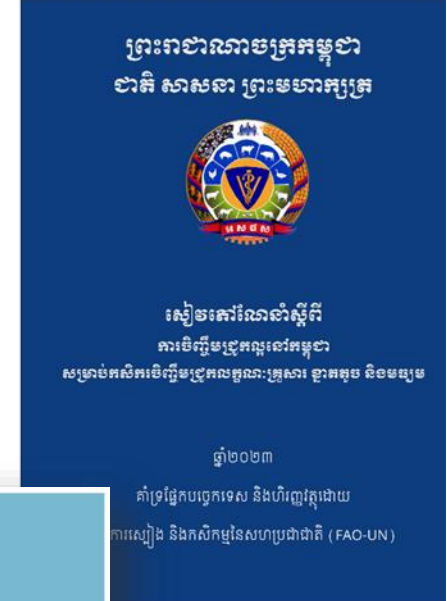
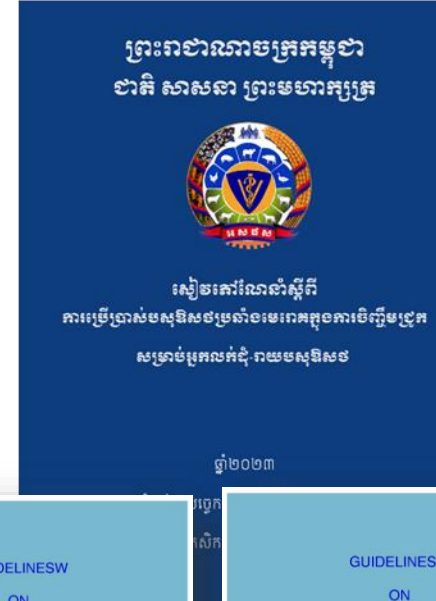
GOVERNANCE/MECHANISM



ONE HEALTH JOINT ACTION PLAN FOR THE FUTURE OF CAMBODIA: ALIGNING HUMAN, ANIMAL, AND ENVIRONMENTAL HEALTH



Good Practice and Prudent Use

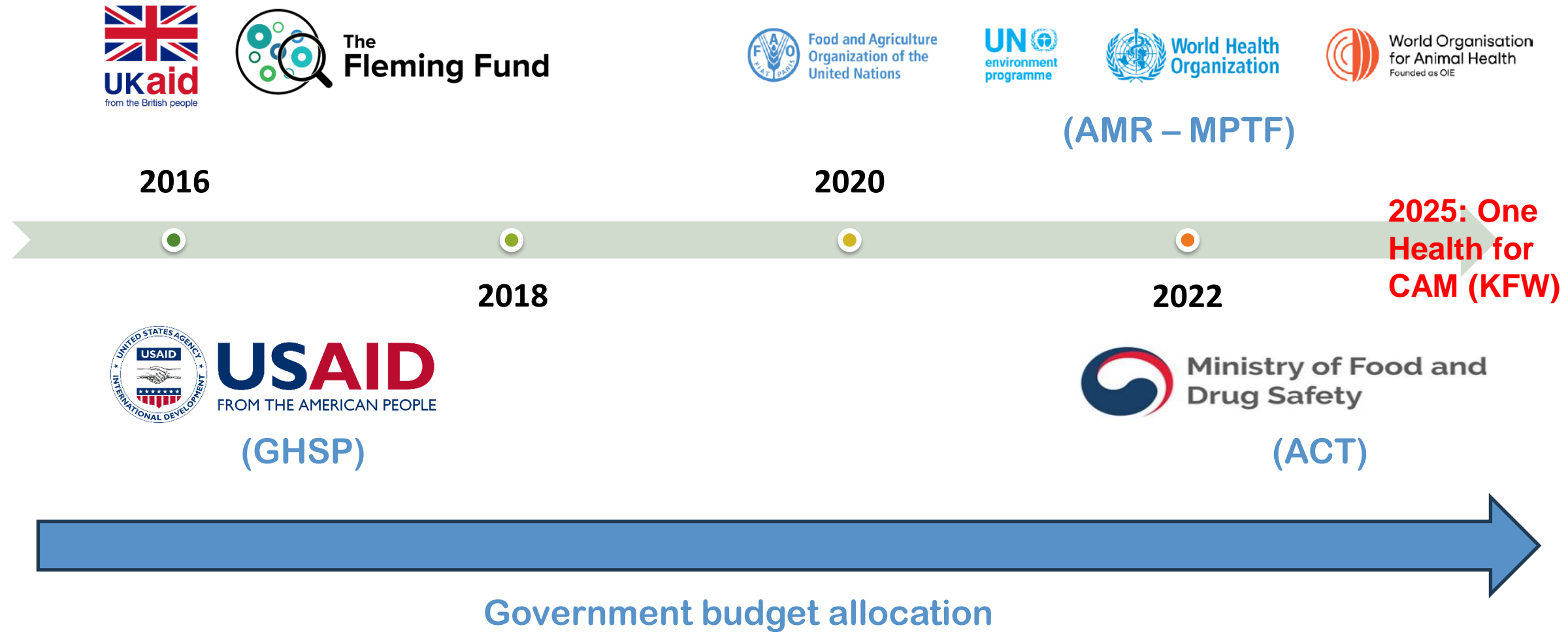


SOPs and Guideline developed under MPTF-AMR

- Printing under USAID, FF3
- Training rolled out to veterinarians and village animal health workers under government's fund



Complementary funding sources contributing to AMR's activities



Thank you



ETHIOPIA

H.E Dr Fikru Regassa State Minister, Ministry of Agriculture, Ethiopia

H.E Dr Fikru Regassa is State Minister, Ministry of Agriculture, Ethiopia. He is trained in veterinary medicine, molecular biology and bioscience engineering . His career spans academia, including establishing capacity development initiatives to train African biotechnologists in improving animal health and production through the development of diagnostic tools and vaccines. In 2019, he was appointed Dean of the College of Veterinary medicine at Addis Ababa University. Board member (Ethiopia) in September 2020.



Tackling Antimicrobial Resistance Across Sectors: 4th Meeting of the G20 Health Working Group side event

The Value of the OH AMR Multi-Partner Trust Fund **Catalytic** Support to Ethiopia

Dr Fikru Regassa, State Minister of Agriculture, Ethiopia, 2 Sep
2024, Natal, Brazil



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Introduction

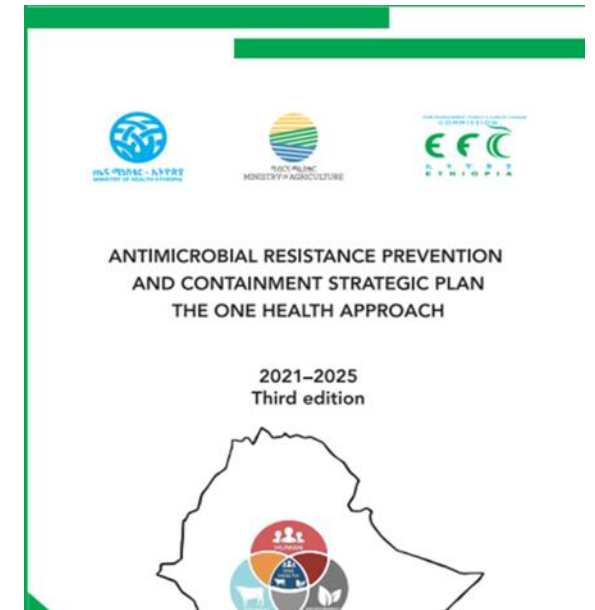
- The Tripartite (FAO-WOAH-WHO) AMR MPTF Project in Ethiopia, one million US\$, has been used as seed money to contribute to **increased Ethiopia's commitment and efforts** on AMR prevention and containment based on **evidence-based data and AMU behaviours and practices** sustainably improved in critical sectors: support implementation of the Ethiopian OH Approach AMR Prevention and Containment strategic plan 2021-2025
- AMR MPTF had an impact two outcomes, four outputs and 16 main activities.

Ethiopia's Commitment & Resource Allocations in tackling AMR

- The AMR MPTF Ethiopia project is co-signed by MOA and MOF a sign of commitment and follow up by the central treasury.
- The third AMR prevention and containment strategy and the AMR MPTF Ethiopia project updated, co-signed, and officially launched.
- Cascaded AMR strategy to institution for ownership and sustainability.
- Developed OH M & E framework AMR prevention and containment
- Improved awareness among the OH stakeholders i.e. professionals, community and policy makers.
- Initiated Public Private Partnership (PPP) on AMR strategy Implementation.

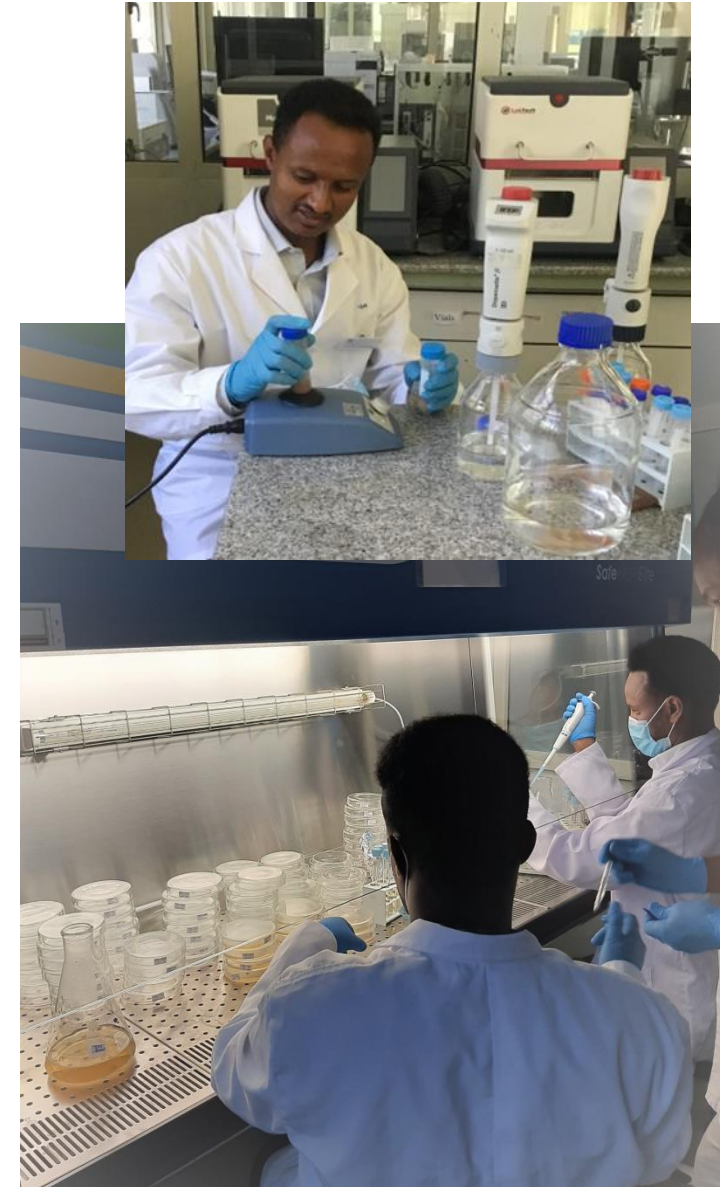
AMR MOTF fund has contributed in:

- FAO Progressive Management Pathway (PMP) formulation as 93% and mid term monitoring of 43% implementation of OH AMR strategy and up on simulation could increase to 95% by the end of the period.
- Ethiopian government has owned and committed in combating AMR on cost sharing & often resources contributions in the implementation of AMR projects.



Strengthened Medicines Regulatory Systems

- Assessed followed by capacity development on the epidemiologic prevalence and laboratory-based post marketing quality surveillance (PMQS) of Substandard and Falsified (S & F) medicines in both Human and Animal Health
- Now, the Food and Drug Administration (FDA) and the Ethiopia Agriculture Authority (EAA) of Ethiopia are capacitated in medicine regulatory bodies on market surveillance and control, animal source food residues monitoring, regulatory inspection and sensitization, and on the impacts of substandard and falsified antimicrobials in both humans and animals and post marketing quality surveillance (PMQS) of medicines.
- The AMR MPTF project in Ethiopia has contributed towards the above.



Enhanced Integrated Interventions

- Baseline assessment on Integrated Antimicrobial Stewardship (AMS) and Healthcare Associated Infections (HAI) Prevention and Control, and commercial poultry farm biosecurity.
- Capacity development interventions on integrated AMS and health care associated infection (HAI) prevention and control, antibiogram development and use and antimicrobials Access, Watch, and Reserve (AWaRe) categorization, and biosecurity to poultry producers to guide antimicrobials prescribing, dispensing and use to multidisciplinary team in 20 target hospitals.
- Developed National biosecurity guidelines in poultry production guidelines and directive (የዶሮ እርባታ ሥነ-ህይወት ደህንነት መመሪያ)
- Improved awareness on safe and quality production of animal source foods and control of Antimicrobial Resistance to health care providers, community and mass media.
- Improved capacity on **access to and rational use and antimicrobial stewardship practices of** veterinary pharmaceuticals (antimicrobials)
- Now, implementing integrated HAI & farm biosecurity, AMS, and AMR surveillance being practiced and this to be adapted to animal health.

Strengthened Evidence based and representative data on AMU and AMR for informed decision making

- Assessed Human and Animal Ethiopia Antimicrobials Consumption/Use AMC/U) Surveys/ Surveillances for the consecutive years to quantify per capita use and load to the environment.
- Provided catalytic support to the AMR surveillance systems and laboratories capacities on Standard Operating Procedures (SOPs), mentoring and monitoring on bacterial identification, AST, and bacterial preservation in Human and animal Health, food safety, zoonosis, private, academia, conformity, environment labs
- Generated data/information on AMR in both Humans and Animals. The number of sentinel sites increased year after year. The data/information generated is provided to WHO GLASS and enrolled in the FAO International FAO Antimicrobial Resistance Monitoring System (InFARM), respectively, global platforms.
- ATLASS (Assessment Tool for Laboratories and Antimicrobial Resistance Surveillance Systems) in the Agrifood system: (*PIP=progressive Improvement Pathway*)
 - AMR surveillance system in Agrifood sector from PIP stage 1 (2018) to PIP stage 3 (2023).
 - AHI has progressed along the FAO Assessment Tool for Laboratories and AMR Surveillance Systems (FAO-ATLASS) from Progressive Improvement Pathway (PIP) stage 2 in 2018 to PIP stage 4 in 2023.
 - AHI is in the process to serve as FAO refence Center for AMR for the region



Way forward

- AMR MPTF project to my knowledge is the first of its kind that brings together OH stakeholders to address AMR prevention and Containment.
- My country, Ethiopia has benefited from AMR MPTF project in support of the OH approach to further strengthen health systems and continued contribution in tackling AMR. 2008.
- *By the way, Ethiopia updated its five years OH AMR strategy for the third time in 2021 and will do the same for the fourth time by the end of next year.*

FOREWORD



There is global consensus on the profound threat that antimicrobial resistance poses to human and animal health. The global health community recognized the urgency of this crisis in 2015 when it adopted the World Health Organization's Global Action Plan on Antimicrobial Resistance.

After realizing widespread and emerging antimicrobial resistance and the grave consequences on the country's health, economy and security, the Government of Ethiopia joined the global community in seeking to better understand and disable the threat. The Government launched in 2011 a National Strategy for the Prevention and Containment of Antimicrobial Resistance, followed by a second strategy for 2015-2020 that integrated the One Health approach. Various efforts followed each edition.

This third iteration of the national Antimicrobial Resistance Prevention and Containment Strategic Plan, for 2021-2025, sharpens the One Health approach to target the large amount of work still to be done. It integrates recent national and global updates and reflects the best available local evidence, stakeholders' concerns and inputs, the socioeconomic and sociocultural context of Ethiopia and the components of the country's health system. This third strategic plan defines the role of all implementing stakeholders and shall be the focus for investments into antimicrobial resistance prevention and containment efforts in Ethiopia.

We want to express our sincere appreciation to all the stakeholders and development partners whose immense contribution and support made the development of this third strategic plan possible despite the COVID-19 pandemic situation.

Because antimicrobial resistance is one of the challenges of our time, fighting this threat is a priority that requires a collaborative approach across sectors. We call upon all stakeholders for continued, coordinated and effective support for achieving the goals and priority objectives of the strategic plan.

We would like to assure you of our commitment to promote, facilitate, finance and monitor the effective implementation of the national strategic plan and achievement of the strategic objectives.

Dr. Lia Tadese
Hon. Minister
Ministry of Health

Dr. Fikru Hagasa
Hon. S. Minister
Ministry of Agriculture

Prof. Fekadu Beyene
Hon. Commissioner
Environment, Forest and Climate Change
Commission

Thank you

INDONESIA

Dr. Yanti Herman Director, Quality Health Services, Ministry of Health, Indonesia

Dr. Yanti Herman is a Director from Quality Health Services at the Ministry of Health of the Republic of Indonesia and Dr. Herman has been involved in the Antimicrobial Resistance Control Program which is an integral part of hospital accreditation standards, and one of the key performance indicators for the Ministry of Health.

The Support of MPTF for AMR Control in Indonesia

Dr. Yanti Herman

Director of Health Service Quality

Ministry of Health, Republik of Indonesia



MPTF SUPPORT IN INDONESIA

Improving knowledge, awareness and practices through IPC-WASH and AMS joint assessments

- a. Intervention for human health sector: assessment of AMS and IPC/WASH implementation in the hospitals in 4 districts in Indonesia.
- b. Intervention for animal health : training of trainers, of 18 staffs to assist 80 poultry farms of the biosecurity practices, prudent use of antibiotics and as process for farm certification
- c. Intervention for environment: developing positioning paper AMR in the environment



Data collection in human and animal health, 2022 - 2023

AMR in the environment workshop, 2023

Strengthening the antimicrobial distribution chain between human and animal health sectors with joint inspection guidelines

- a. **Joint inspection guidelines on antimicrobial distribution** chain between human and animal health sectors developed and adopted by the Ministry of Agriculture (Animal Health) and National Agency for Food And Drug Control (Human Health).
- b. This is the result of **collaborative work between human and animal health sectors** supported by Tripartite.
- c. A total of **12 pharmaceutical companies** that have multiple licenses have been inspected in 2022 and recommendations for improving the prudent distribution and use of antimicrobials in the human and animal health sector to avoid misuse of antimicrobials.



Joint inspection guidelines on antimicrobial distribution chain

Strengthening multi-sector engagement in the fight against AMR

- a. Attention and effective interventions are undertaken to **increase the involvement and active participation** of the commercial sector, policymakers, healthcare workers and the general public in the fight against antimicrobial resistance.
- b. **Join-statement signed** by six large firms on the implementation of good practices.



Leaders of six private companies signed the joint declaration on five important measures to mitigate AMR

A media briefing for journalists, 2022

AMR Talkshow

Multisectoral WAAW celebration

INNOVATIVE ASPECTS OF THE FUND'S SUPPORT HAVE CONTRIBUTED TO ACHIEVING SUSTAINABLE ONE HEALTH OUTCOMES IN INDONESIA

1. Adaptation of Best Practices:

The MPTF project developed AMS and IPC-WASH assessment tools for both human and animal health facilities, integrating international and national guidelines to enhance effectiveness in addressing antimicrobial stewardship and infection prevention.

2. Targeted Awareness Strategies:

Engaging non-traditional stakeholders, such as the Association of Independent Journalists, has been a key success in increasing awareness of antimicrobial resistance (AMR), highlighting the importance of bridging knowledge gaps in mass media.

3. Private Sector Engagement:

Enhancing the involvement of major private sector players, particularly in the livestock industry, is crucial for the long-term sustainability of AMS and IPC-WASH programs, given their significant role in the sector.

Health decentralization, natural conditions, and support for strengthening the implementation of AMR control programs.

Decentralization

Indonesia implements decentralization in healthcare management, granting authority to local governments to manage and provide healthcare services. This aims to improve accessibility and relevance of services at the local level.

Geographical conditions of Indonesia



Over 17,000 large and small islands with diverse geographical and natural conditions → Remote areas and eastern Indonesia face challenges in accessing healthcare facilities and often have inadequate services.

support

1. Strengthening human resources in healthcare, particularly for microbiology laboratories to support AMR surveillance and promote prudent antibiotic use.
2. Meeting infrastructure and logistical needs due to the disparity in healthcare capabilities across Indonesia.
3. Support from international experts in the development of AMR policies.
4. Strengthening information systems.



PERU

Dr. Ronnie Gavilán Chávez Technical Secretary, Multisectoral Commission to antimicrobial resistance, Peru

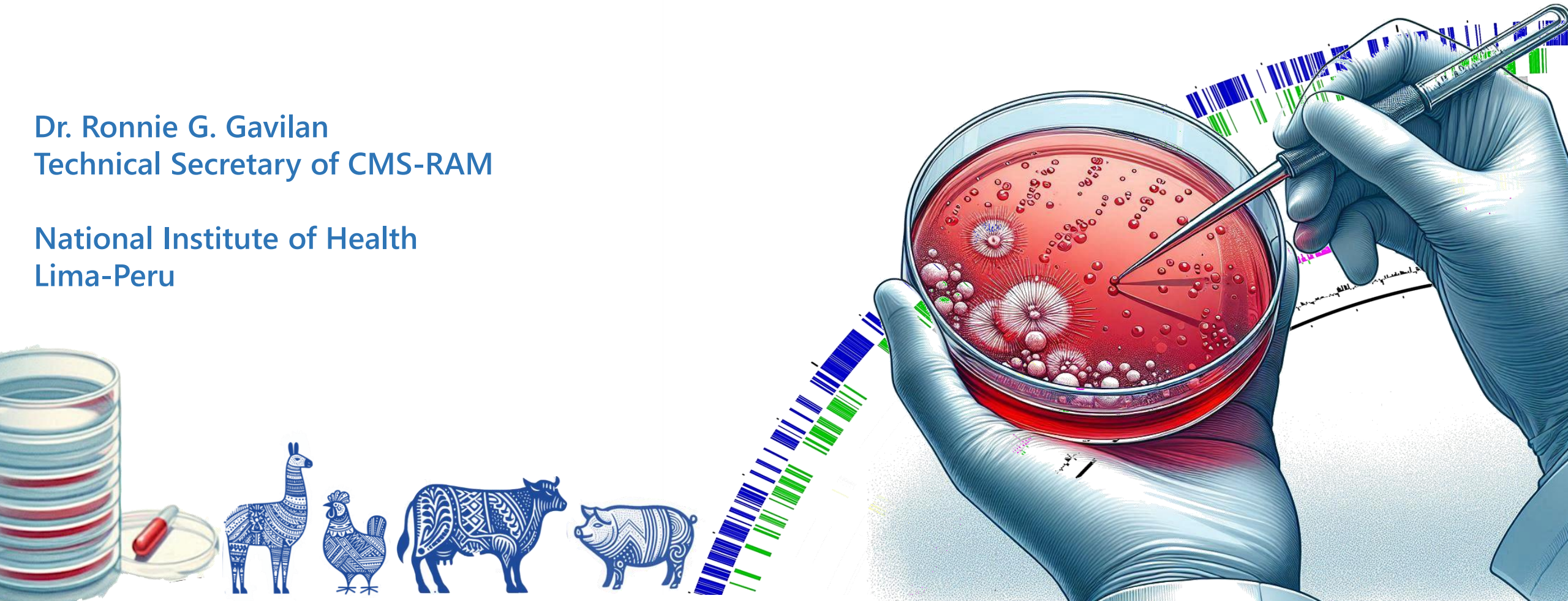
Dr. Ronnie Gavilán Chávez is a Research biologist, PhD in Molecular Biology, Research Fellow at the Smithsonian Tropical Research Institute Panama. The line of research includes AMR, genomics and molecular epidemiology of pathogens relevant for public health. Currently, Dr. Ronnie is a Researcher and Head of the Bacteriology Unit, National Center for Public Health, National Institute of Health, Technical Secretary of the Multisectoral Commission against Antimicrobial Resistance in Peru. He is also a Research Professor at the School of Medicine of the San Juan Bautista Private University, Lima Peru.



Progress in containing antimicrobial resistance in Peru

Dr. Ronnie G. Gavilan
Technical Secretary of CMS-RAM

National Institute of Health
Lima-Peru



Comisión Multisectorial para enfrentar la Resistencia a los Antimicrobianos



 PERÚ Ministerio de Salud	 PERÚ Ministerio de Ambiente	 PERÚ Ministerio del Interior	 SENASA Servicio Nacional de Sanidad Agraria PERÚ	
 PERÚ Ministerio Defensa	 PERÚ Ministerio Relaciones Exteriores	 CAYETANO HEREDIA	 EsSalud Estamos a tu servicio	 Organización Panamericana de la salud
				
				



Approval of NAP AMR Peru



El Peruano / Sábado 18 de mayo de 2019

NORMAS LEGALES

SALUD

Aprueban el Plan Multisectorial para enfrentar la Resistencia a los Antimicrobianos 2019 - 2021 y crean Comisión Multisectorial de Naturaleza Permanente

**DECRETO SUPREMO
N° 010-2019-SA**

Artículo 11.- Refrendo

El presente Decreto Supremo es refrendado por el Presidente del Consejo de Ministros, la Ministra de Trabajo y Promoción del Empleo, el Ministro de Defensa, el Ministro del Interior, la Ministra del Ambiente, la Ministra de la Producción, la Ministra de Agricultura y Riego, el Ministro de Relaciones Exteriores y la Ministra de Salud.

Dado en la Casa de Gobierno, en Lima, a los diecisiete días del mes de mayo del año dos mil diecinueve.

MARTÍN ALBERTO VIZCARRA CORNEJO
Presidente de la República



AMR Projects – International Cooperation



•**KOICA/WHO Project** : “Strengthening global and national systems by strengthening national laboratory and epidemiological capacities and human resources for the surveillance of antimicrobial resistance”

2018-2021 (March 2023)

Cooperator: KOICA

Executor: PAHO

•**European Union project** : “Working together to combat antimicrobial resistance”

2020-2021 (OCT 2023)

Cooperator: EU

Executor: OPS

•**AMR-MPTF Project** : “Fighting antimicrobial resistance in Peru under the One Health approach”

2022-2023

Cooperator: MPTF

Executor: FAO / PAHO / WHO

•**ECTAD Project OSRO/PER/061/USA:** Sustainable animal health systems, food safety and “One Health” capabilities - ECTAD

2023-2027

Cooperator: USAID

Executor: FAO



Organización de las Naciones
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y la Agricultura



Organización Mundial
de Sanidad Animal
Fundada como OIE

OPS



Organización
Panamericana
de la Salud



Organización
Mundial de la Salud
OFICINA REGIONAL PARA LAS Américas

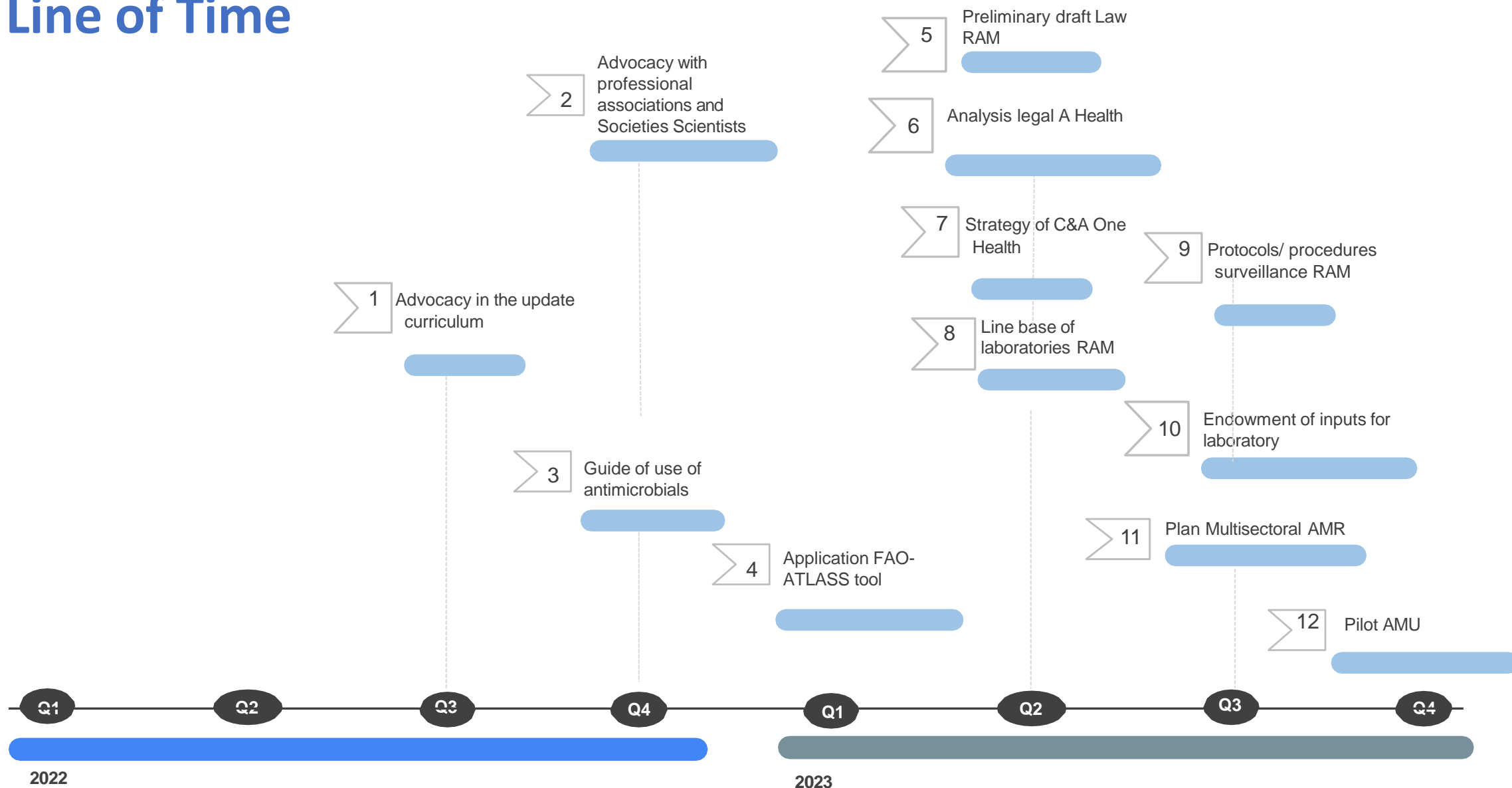
Achievements and Results

*Project AMR- MPTF: Fighting AMR in Peru under the
One Health approach*

Office of the Representation FAO in he Peru



Line of Time





Line of base



Analysis of the legislation in AMR and AMU through the TCP/RLA/3708 project



Plan multisectoral AMR (2019-2021).
Decree Supreme 010- 2019- SA.

Information dispersed for the use of antimicrobials in the health sectors animal, agriculture and environment

Line base for 02 laboratories

Achievements



Preliminary draft of Law frame for containment of AMR in Peru



Proposal of Plan Multisectoral to face the Antimicrobial Resistance 2024-2030 under the approach One Health

Guide about use responsible and prudent of antimicrobials in health animal

Line of base of the system of surveillance RAM
Line base of the AMR for 05 laboratories of diagnosis of the AMR
Application tool FAO- ATLASS



Line of base



Laboratories with inputs and insufficient materials for carry out diagnostic tests RAM



Lack of protocols and standardized procedures for the detection of RAM in the components animal health and agriculture

Plan Pilot of the Surveillance Integrated of The Resistance to the Antimicrobials low The Focus "A Health"

NT implementation Program of Optimization of the AMU to level hospitable

Achievements

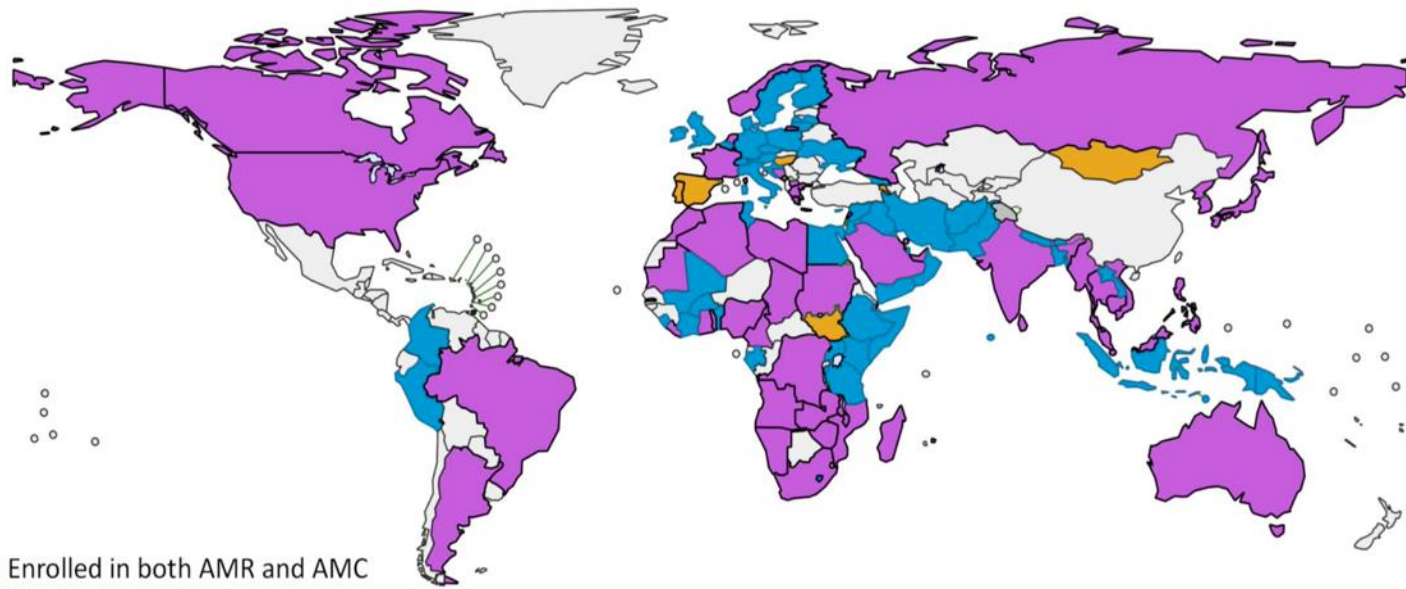


- Laboratories from SENASA, DIGESA, SANIPES and INS with inputs and materials to perform evidence diagnostic of the RAM

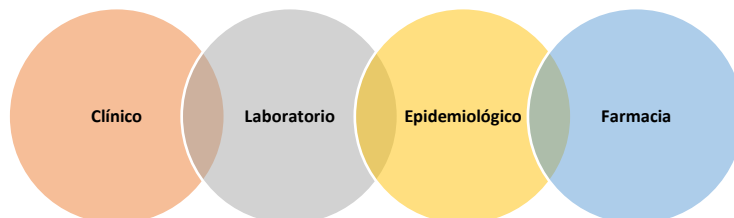


- Proposal of protocols for determination of the susceptibility of AMR, and Manual of procedures microbiological for Identification and evidence of antimicrobial susceptibility
- Implementation of a managed virtual course by the Ministry of Health about the use optimized of antimicrobials in the institutions health of the country
- Guidelines for the Surveillance Integrated of the Endurance to the Antimicrobials under the Approach "A Health"

Surveillance of Antimicrobial Resistance in Peru



- Enrolled in both AMR and AMC
- Enrolled in AMR
- Enrolled in AMC
- Not Enrolled
- Not Applicable



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PERÚ

Ministerio de Salud

Viceministerio de Salud Pública

Centro Nacional de Epidemiología, Prevención y Control de Enfermedades

"Decenio de la Igualdad de Oportunidades para Mujeres y Hombres"

"Año del Bicentenario, de la consolidación de nuestra independencia, y de la conmemoración de las heroicas batallas de Junín y Ayacucho"

ALERTA EPIDEMIOLÓGICA

Riesgo de infecciones asociadas a la atención de la salud causadas por *Klebsiella pneumoniae* hipervirulenta portadora de genes de carbapenemasas

CODIGO: AE- CDC- N°007 - 2024

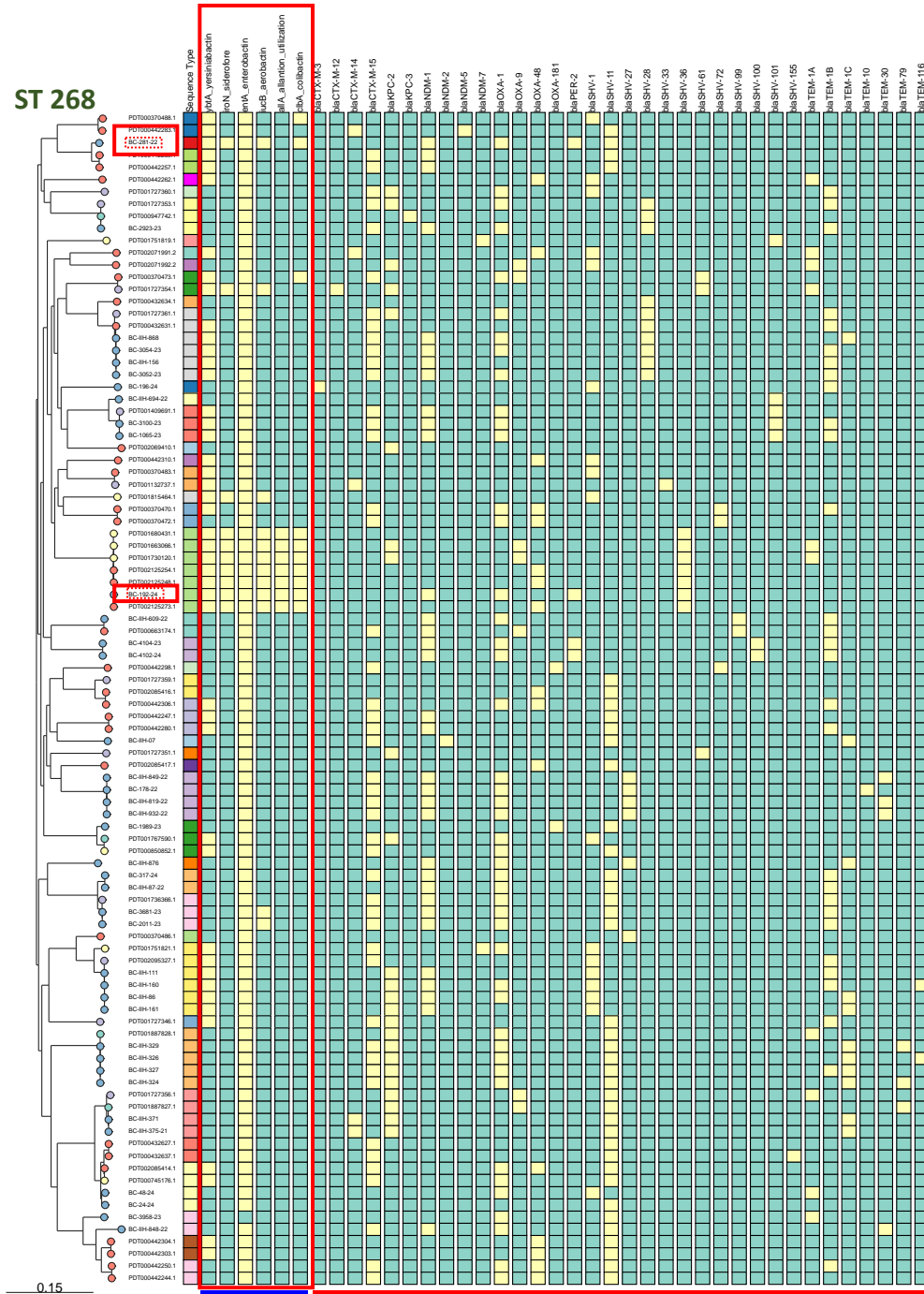
I. Objetivo

Alertar a los servicios de salud públicos y privados del país, frente al riesgo de infecciones asociadas a la atención de la salud, causadas por *Klebsiella pneumoniae* hipervirulenta portadora de genes de carbapenemasas en el Perú; a fin de detectar, notificar, controlar e implementar las acciones de prevención y control de infecciones en los servicios de salud.

II. Antecedentes

- Klebsiella pneumoniae* (Kp) es una bacteria Gram-negativa de relevancia para la salud pública, que ha evolucionado a dos patotipos: *Klebsiella pneumoniae* hipervirulenta (hvKp) y *Klebsiella pneumoniae* clásica (cKp)¹.
- HvKp fue descrito por primera vez en 1986 en el Sudeste Asiático, a través de un informe clínico publicado por Liu et al, donde informa sobre 7 casos de personas de la comunidad con infección por HvKp con presentación de absceso hepático con ausencia de enfermedad del tracto biliar y endoftalmitis séptica^{1,2}. La HvKp se coloniza en el tracto gastrointestinal, contribuyendo su propagación en la comunidad y en los entornos sanitarios.
- HvKp representa mayor virulencia que cKp y tiene la capacidad de causar infecciones graves tanto en pacientes inmunocomprometidos como sanos; por lo que, se ha descrito como causa de infecciones adquiridas en la comunidad², en pacientes con cuadro clínico característico: absceso hepático sin antecedentes de enfermedad del tracto biliar³.
- En 2020, China publicó un estudio donde realizó 158 aislamientos de Kp, el 50% (79) fueron HvKp. De los cuales, el 91,2% (72/79) eran cepas de HvKp aisladas en pacientes con infección nosocomial o relacionadas a la atención de salud y el 8,8% (7,79) corresponde a pacientes con infección adquirida en la comunidad. Cabe señalar que, el 43,1% (31/72) de los aislamientos nosocomiales y asociados a la atención sanitaria de HvKp, fueron resistentes a múltiples fármacos multi droga resistentes, BLEE y carbapenémicos⁴.
- En 2020, Irlanda informa el hallazgo de aislamientos de hvKp secuencia tipo 23 (ST23), en cultivos de sangre (2), absceso hepático (2), orina (4), hisopos de heridas (1), todos registrados en marzo de 2019. Siendo evidente una propagación sostenida del linaje HvKp ST23 globalmente dominante, portador de genes de carbapenemasa en centros de salud en Irlanda durante un período de 05 años, a pesar de los esfuerzos de control que tuvo el país⁵.
- En 2021, Europa incrementa la notificación de casos de HvKp ST23 de 04 a 10 países y el número de aislamiento aumentó de 12 a 143. Y, en la última evaluación publicada por el Centro Europeo para la Prevención y el Control de Enfermedades (ECDC) relacionada con HvKp ST23 en la Región de las Américas, indican que, los laboratorios nacionales de referencia (LNR) de diez países de la Región Europea indicaron durante el periodo del 2018 al 2023, 131 aislamientos de HvKp ST23 asociados a infección o portación: Dinamarca (4), Finlandia (1), Francia (13), Hungría (1), Irlanda (87), Italia (2), Letonia (9), Lituania (8), Países Bajos (4) y Noruega (2)⁵.
- En marzo del 2024, la Organización Panamericana de la Salud (OPS) mediante la Evaluación Rápida de Riesgo para la salud pública relacionada con *Klebsiella pneumoniae* hipervirulenta

ST 268



Genes de virulencia

Genes de resistencia

Leyenda

País

Argentina	289
Chile	307
Ecuador	309
Ireland	323
Peru	327

ST

5	348
11	380
13	441
14	469
15	485
17	505
23	610
25	629
35	661
36	879
37	1456

Genes

Presencia	Ausencia
45	101
48	111
101	133
111	147
133	151
147	152
151	188
152	220
188	258
220	268
258	273
268	276
273	280
276	
280	



Integrated surveillance of antimicrobial resistance under the One Health approach

VIRAMUS



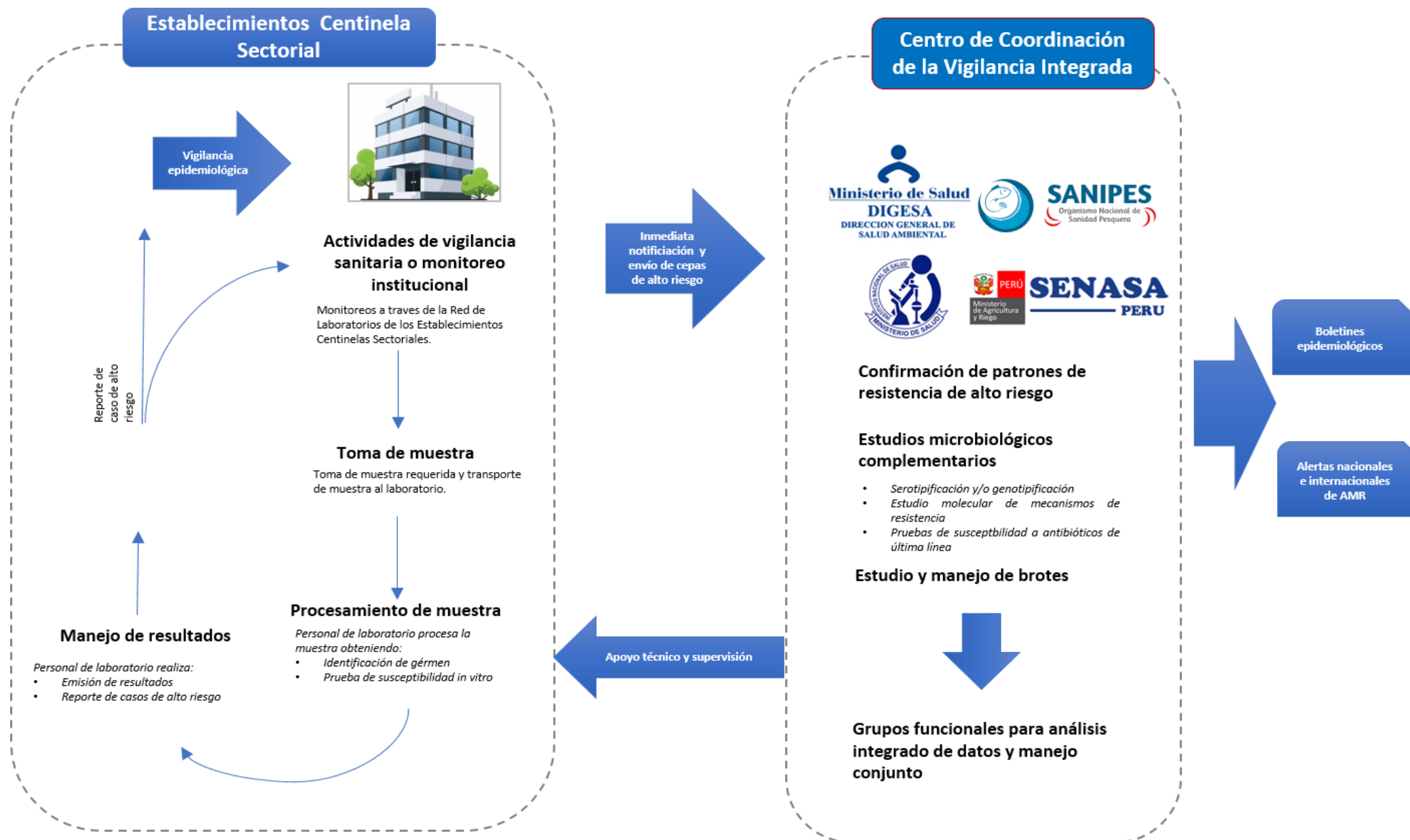
Prioritization of Chains and microorganisms:

Salmonella

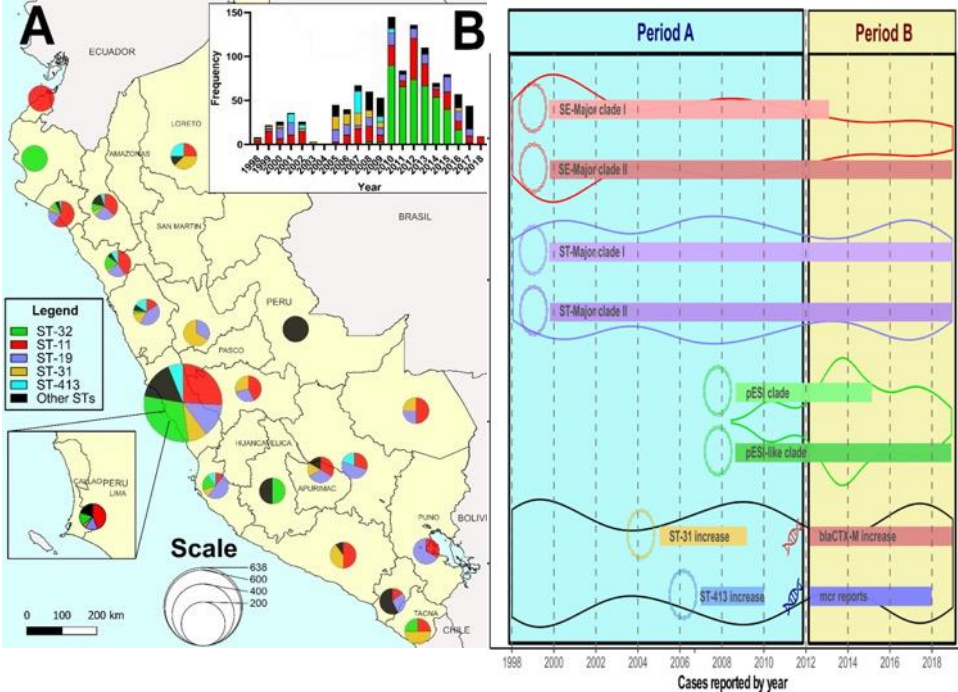
E. coli



Vigilancia integrada de la resistencia a los antimicrobianos bajo el enfoque Una Salud - Perú



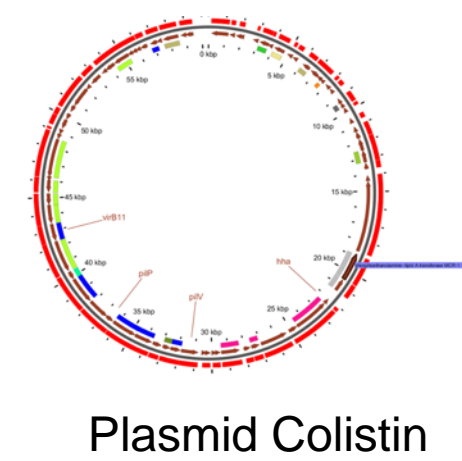
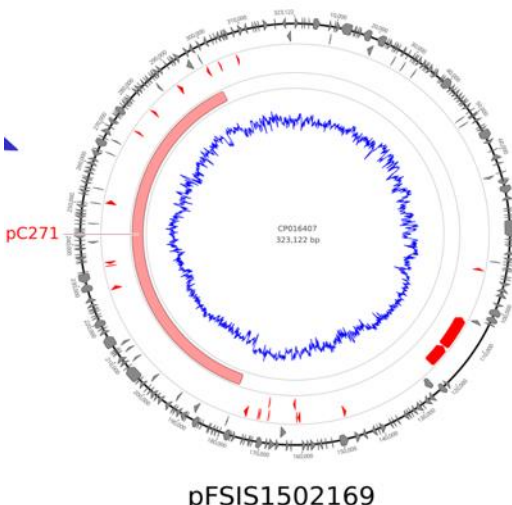
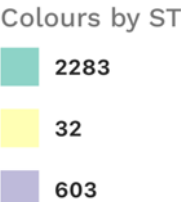
Salmonella in Peru



REV PERU MED EXP SALUD PUBLICA. 2019;36(1):37-45. Multidrogaresistencia de Salmonella infantis

Antibióticos	Genes plasmídicos					Genes cromosómicos														
	blaR	blaI	blaII	blaIII	CTX4445	mdaR	mdaS	mdaA	mdaB	mdaC	mdaD	mdaE	mdaF	mdaG	mdaH	mdaI	mdaJ	mdaK	mdaL	mdaM
Ampicilina*																				
Chloramphenicol*																				
Trimetoprima - sulfametoxazol*																				
Ciprofloxacina*																				
Ácido nalidixico*																				
Tetraciclina*																				
Ceftazidima*																				
Cefotaxima*																				
Aminoglicósidos																				
Elifamicina																				
Fosfomicina																				
Nitroimidazol																				
Estreptograminas																				

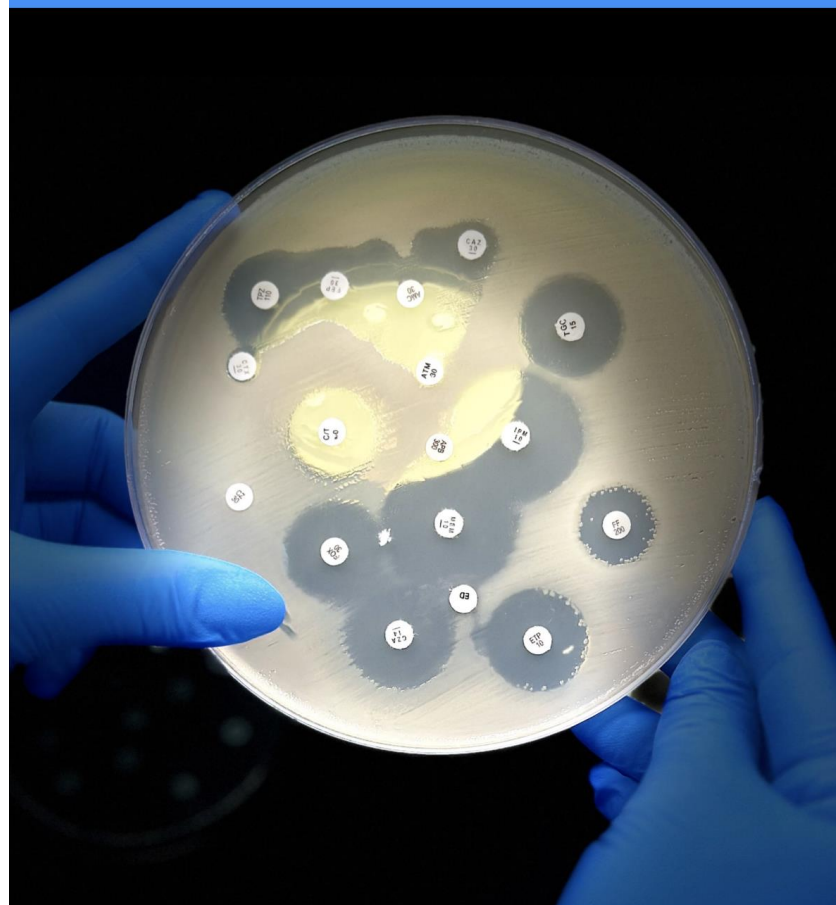
Figura 4. Genes de resistencia antimicrobiana vinculados con los antibióticos estudiados (*) contra *Salmonella* Infantis mediante secuenciación genética de nueva generación. En el perfil de resistencia genotípico una caja negra indica la presencia del gen de resistencia y la caja de color blanco ausencia del gen.



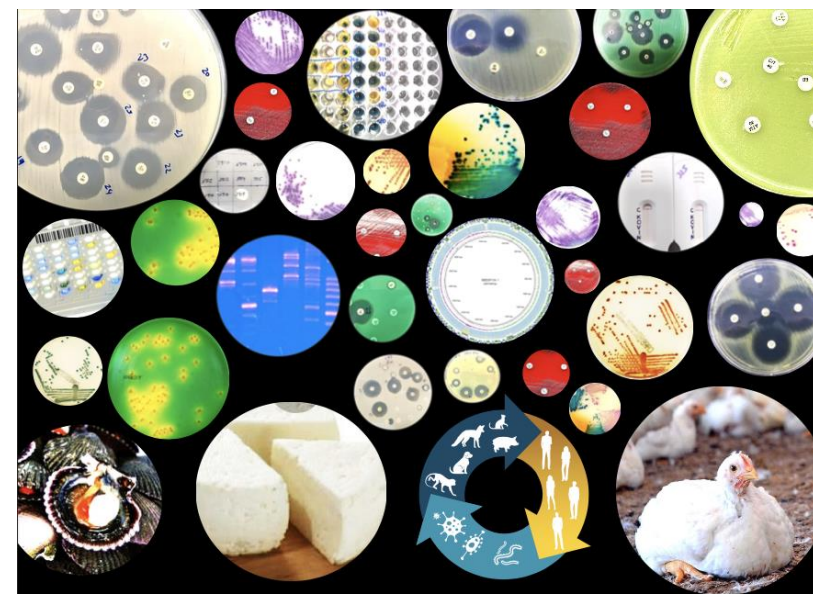
Megaplasmid

Plasmid Colistin

**MANUAL DE PROCEDIMIENTOS MICROBIOLÓGICOS
PARA LA IDENTIFICACIÓN Y PRUEBAS DE
SUSCEPTIBILIDAD ANTIMICROBIANA EN BACTERIAS
DE IMPORTANCIA EN SALUD PÚBLICA**



Instituto Nacional de Salud



**Vigilancia integrada de la resistencia a los
antimicrobianos bajo el enfoque Una Salud**

VIRAMUS

Comisión Multisectorial para enfrentar la Resistencia a los Antimicrobianos - Perú





COMISIÓN DE SALUD Y POBLACIÓN

Decenio de la Igualdad de Oportunidades para Mujeres y Hombres
"Año del Bicentenario, de la consolidación de nuestra Independencia, y
de la conmemoración de las heroicas batallas de Junín y Ayacucho"

DICTAMEN RECAÍDO EN PROYECTO DE LEY 6998/2023-CR, QUE PROPONE LA
LEY PARA FORTALECER LA CONTENCIÓN DE LA RESISTENCIA A LOS
ANTIMICROBIANOS BAJO EL ENFOQUE "UNA SALUD".

COMISIÓN DE SALUD Y POBLACIÓN

PERÍODO ANUAL DE SESIONES 2022-2023

Dictamen Nro. 43-2023-2024-CSP-CR

Señor presidente:

Ha sido remitido para estudio y dictamen de la Comisión de Salud y Población el proyecto de ley:

Proyecto	Grupo Parlamentario	Proponente	Sumilla
6998/2023-CR	FUERZA POPULAR	RAÚL HUAMÁN CORONADO	LEY MARCO PARA LA CONTENCIÓN DE LA RESISTENCIA A LOS ANTIMICROBIANOS BAJO EL ENFOQUE "UNA SALUD"

La Comisión de Salud y Población, en su Octava Sesión Extraordinaria, celebrada el 11 de junio de 2024, debatió y aprobó con el voto **mayoritario** de los presentes, este dictamen que recomienda **la aprobación del proyecto de ley**. Votaron a favor los congresistas: Heidinger Ballesteros, Infantes Castañeda, Tello Montes, García Correa, Huamán Coronado, Luque Ibarra, Marticorena Mendoza, Mori Celis, Portalatino Ávalos, Portero López, Sánchez Palomino y Santisteban Sucuple. Se abstuvo la congresista Agüero Gutiérrez.

Se deja constancia de que en la sesión se acordó por unanimidad la aprobación del acta, con dispensa de su lectura, para la ejecución de los acuerdos.

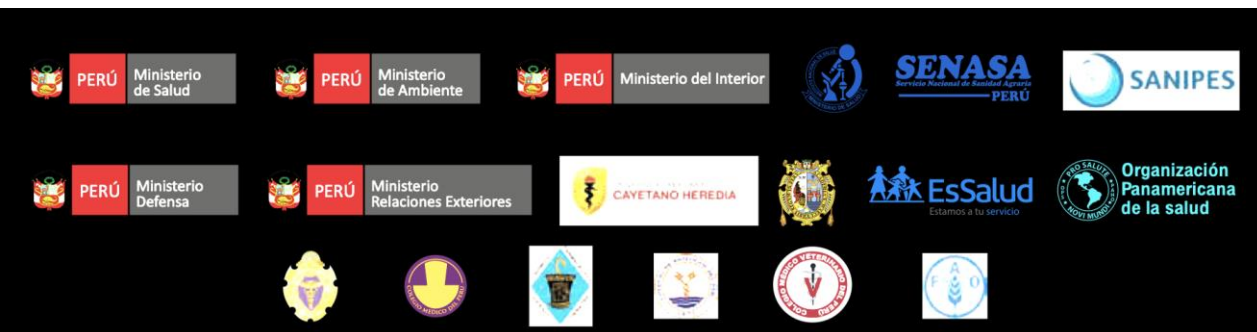
Propuesta de Plan Multisectorial para la contención de la Resistencia a los Antimicrobianos bajo el enfoque de Una Salud 2024-2030

Comisión Multisectorial para Enfrentar la Resistencia a los Antimicrobianos

Brechas de las Comites Multisectoriales:

- Aproveche las prioridades de investigación en resistencia antimicrobiana en Perú
- Promueva la implementación de una plataforma interoperable de información para AMR y AMU con un enfoque de One Health.
- Fortalezca los proyectos de cooperación sobre el manejo de la información hospitalaria y la implementación de la Vigilancia Nacional de Resistencia Antimicrobiana para el componente de Salud Humana en los Hospitales Sentinela en Perú.
- Brinde apoyo en la implementación de actividades dentro del marco de la Ley que fortalece la Vigilancia, Prevención y Control de Infecciones Asociadas a la Atención de Salud (IAAS) como componente de la política pública de salud pública nacional.
- Promueva la integración de la información sobre resistencia antimicrobiana en Tuberculosis y VIH en la Vigilancia Nacional de Resistencia Antimicrobiana para el componente de Salud Humana.
- Promueva el diseño del Programa Presupuestario Orientado a Resultados sobre Resistencia Antimicrobiana en el Proyecto de Ley de Presupuesto del Sector Público para el Año 2025, con el fin de garantizar la sostenibilidad financiera de las acciones e iniciativas para el control de AMR en el país.





<https://www.gob.pe/antimicrobianos>

ZIMBABWE

Dr. Tapfumanei Mashe AMR Project Coordinator, Zimbabwe

Dr. Tapfumanei Mashe is the AMR Project Coordinator in Zimbabwe, coordinating AMR activities for the government and the quadripartite. He is seconded to the Zimbabwe One Health Secretariat, where he provides full-time technical assistance.



Partnerships for Progress: The AMR Multi-Partner Trust Fund in Zimbabwe



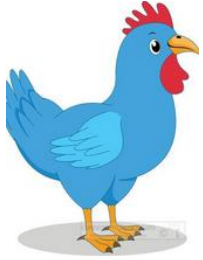
**Tapfumanei Mashe,
Zimbabwe**



2 Roadmap to Success



Vaccines Offer Hope: A Sustainable Approach to Antimicrobial Resistance (AMR)



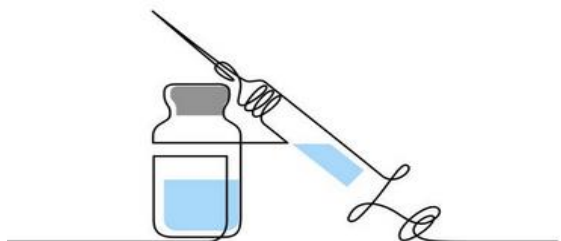
Raising the bar: The Role of Farmer Field Schools



Improving Patient Safety: Zimbabwe Launches HAI Surveillance Program



Strengthening Infection Prevention and Control in Zimbabwe



Vaccines Offer Hope



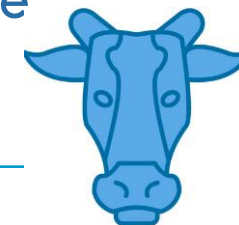
VACCINES
Save Lives





253,541
doses produced

Produced doses of
Theileriosis vaccine
(BOLVAC)



65,822
doses distributed

Doses distributed in different
provinces



187,719
doses in stock

Doses of BOLVAC
vaccines in stock



Reduction in typhoid incidence in vaccine-targeted age groups (6mo-15y)

Rate	Pre-vaccine incidence per 100,000 (95% CI)	Post-vaccine incidence per 100,000 (95% CI)	Reduction, % (95% CI)
All children 6mo through 15y			
Confirmed and suspected cases	25.9 (25.7, 26.1)	24.6 (24.5, 24.8)	4.9 (3.9, 5.9)
Projected cases	35.8 (35.0, 36.7)	25.7 (25.3, 26.1)	28.4 (26.3, 30.5)
Children 6mo through 4y			
Confirmed and suspected cases	25.0 (24.9, 25.2)	24.6 (24.4, 24.7)	1.9 (1.0, 2.8)
Projected cases	31.5 (30.8, 32.1)	25.4 (25.0, 25.7)	19.4 (21.4, 17.4)
Children 5-15y			
Confirmed and suspected cases	26.8 (26.4, 27.2)	24.7 (24.5, 25.0)	7.8 (6.1, 9.5)
Projected cases	40.8 (39.1, 42.6)	25.9 (25.2, 26.7)	36.5 (33.1, 39.6)

Raising the bar



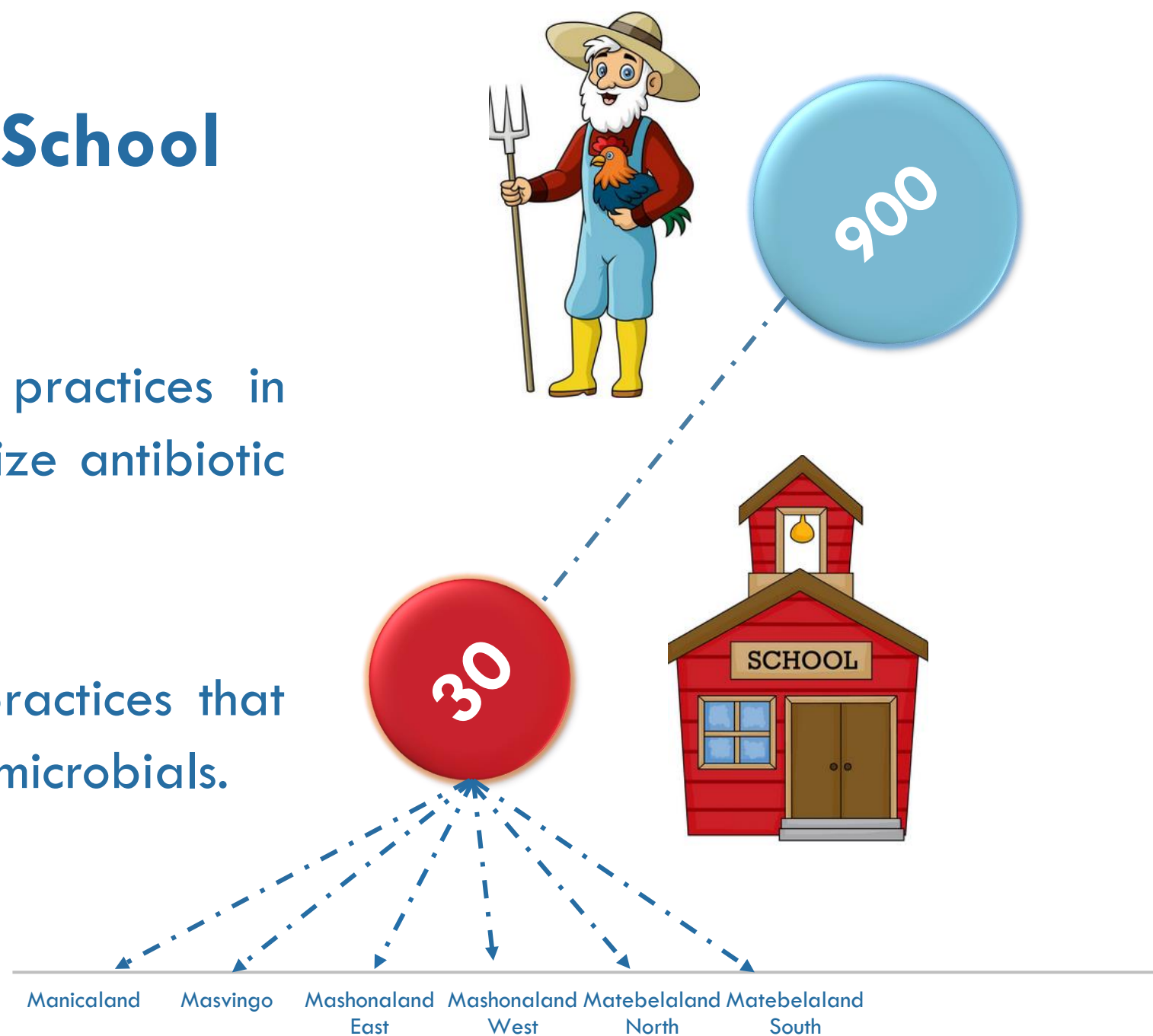
Broiler Farmer Field School

Objectives

- Educate farmers on best practices in broiler production to minimize antibiotic use.

Impact

- Promotion of sustainable practices that reduce dependency on antimicrobials.



Improving Patient Safety





1

Zimbabwe National Infection Prevention and Control Policy 2024



2

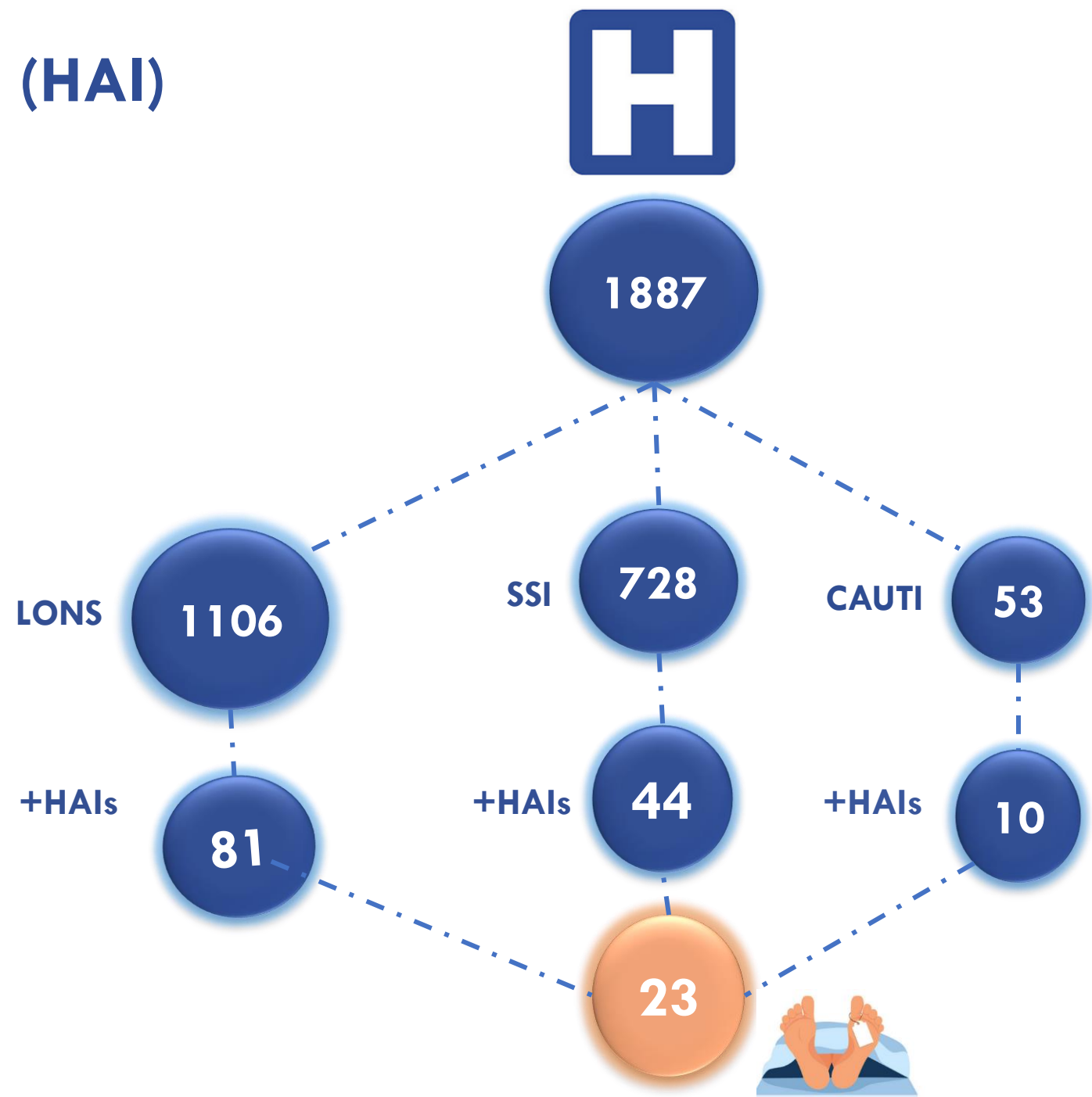
Zimbabwe National IPC Strategic Plan (2024-2026)



Hospital Associated Infection (HAI)

Objectives

- Late onset neonatal sepsis (LONS)
- Post Caesarean section surgical site infections (SSI)
- Catheter-associated urinary tract infections in stroke patients (CAUTI)







Q&A and discussions



Resource Partner Panel-The
value of working together
and ambition ahead

Dr. Nicola Watt Component Lead, International Collaboration, Global Programme Pandemic Prevention and Response, One Health, GIZ, Germany

Dr. Nicola Watt has led on multilateral and regional collaboration for the Global Programme for Pandemic Prevention and Response, One Health at the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) – commissioned by the German Federal Ministry for Economic Cooperation and Development, BMZ – since 2020. Before that, she worked in domestic and international health and development policy and programming for the UK Department of Health (2006-2012), Department for International Development (DFID, now FCDO, 2012-2017) and Public Health England (now UKHSA, 2017-2020). She has a PhD in medical Biochemistry and an MSc in Public Health.

Ms. Holly Rhyner-Jones Head, Fleming Fund, UK

Ms. Holly Rhyner-Jones has been Head of the Fleming Fund since November 2021. Previous to this she was the deputy head of the team and led on grants with multilateral agencies as well as oversaw the independent evaluation of the Programme. Holly has a background in operational management and previously led an innovative mental health programme in East London. Holly has experience working in central and local government and in the charity sector specialising in health and education.



Q&A and discussions



Closing

Dr. Jean Pierre Nyemazi
Director a.i., Quadripartite Joint
Secretariat