Chair’s Summary: Health Ministers’ Meeting of the G20

28 October 2022

On 27 – 28 October 2022, the G20 Health Ministers’ convened in Bali for the second Ministerial meeting. The meeting was also attended by invited countries and international organizations.

The said meeting and its related meetings (working groups and side events) have reviewed Leaders’ commitment to strengthen global health governance as stated in the G20 Rome Leaders’ Declaration.

The Indonesian G20 Presidency in 2022 highlighted as a challenging year. The current geopolitical tensions have also exacerbated the challenges to the global health. The compounded effects of the ongoing and potential future pandemic, as well as geopolitical conflicts have dramatically deteriorated physical and mental health and social wellbeing conditions.

In this regard, many delegations expressed deep concern regarding the increased and ongoing conflicts in many parts of the world, including the war in Ukraine, which have far-reaching effects beyond the region. The damage caused by the conflict on health care facilities, as well as casualties in health care workers, have disproportionately affected the most vulnerable, women and children. The war exacerbates the ongoing global food security crisis and malnutrition. Many members expressed their condemnation to Russia in this regard, while others view that G20 Health Working Group is not the proper forum to address geopolitical issues. The meeting was also highlighted with the call for peace, cessation of hostilities, and an end to war.

Moreover, the meeting acknowledged the need for G20 members to continue collaborating with all countries, especially low- and middle-income countries (LMICs), international organizations, and civil society organizations to address global health needs, as well as the need for G20 countries to work together to address health inequities. Furthermore, the urgent need to address the gaps in pandemic PPR and the need to strengthen health system recovery to respond to health emergencies were further elaborated.

The meeting discussed proposed initiatives under Indonesian G20 Presidency on pandemic Prevention, Preparedness and Response (PPR), with the three health priority issues, namely: Building Global Health System Resilience; Harmonizing Global Health Protocols; and Expanding Global Manufacturing and Research Hubs for pandemic PPR. The meeting shared the same view to implement G20 Health Ministers’ Action to Strengthen Global Health Architecture (Bali Global Health Action).
1. The G20 Health Ministers (The Ministers), met in Bali, Indonesia, on 27 and 28 October 2022 to strengthen their collective efforts to “Recover Together, Recover Stronger” from the current global health crisis and better prepare for future health risks by strengthening the global health architecture.

2. Since COVID-19 was declared a Public Health Emergency of International Concern (PHEIC), Ministers have made tremendous progress in curbing the pandemic. While the COVID-19 pandemic is not over, the World Health Organization (WHO) has recently declared monkeypox as another PHEIC, reinforcing that international health threats are ever present and that the G20 and broader global community must come together to improve their collective preparedness and response capabilities.

3. The Ministers reaffirm their Leaders’ commitment to strengthen global health governance as stated in the G20 Rome Leaders’ Declaration. The Ministers acknowledge the need for G20 members to continue collaborating with all countries, especially low- and middle-income countries (LMICs), international organizations, and civil society organizations to address global health needs.

4. The Ministers reaffirm their collective commitment to respect the right of all persons to the enjoyment of the highest attainable standards of physical and mental health, as well as the need for G20 countries to work together to address health inequities.

5. Therefore, under the theme of ‘Strengthening Global Health Architecture’, Ministers have focused their collective efforts on pandemic Prevention, Preparedness and Response (PPR), with the three health priority issues set by the Presidency, being: Building Global Health System Resilience; Harmonizing Global Health Protocols; and Expanding Global Manufacturing and Research Hubs for pandemic PPR.

6. The Ministers acknowledge the urgent need to address the gaps in pandemic PPR and the need to strengthen health system recovery to respond to health emergencies. The Ministers reaffirm the need to ensure coherency and complementarity of efforts avoiding duplications between existing and upcoming international initiatives and actions for pandemic PPR, including surveillance, workforce training and financing aspects. The Ministers support the work of the Intergovernmental Negotiating Body (INB) that will draft and negotiate a legally binding instrument, that should contain both legally binding and non-legally binding elements mindful that the decision will be made by World Health Assembly, to strengthen pandemic PPR. The Ministers also support the working group on the International Health Regulations that will consider Amendments to the International Health Regulations (IHR) (2005). The Ministers underscore the importance of full implementation of the IHR (2005) and the leading and coordination role of WHO in global pandemic PPR efforts. The Ministers recognize the value of technical guidance by the Quadripartite (FAO, UNEP, WHO, and WOAH), stressing the importance of the One Health approach to Pandemic PPR and beyond, including Antimicrobial Resistance (AMR).

7. The Ministers thank the Indonesian G20 Presidency for its leadership through a particularly challenging year and for convening the Health Ministers’ Meetings and the Joint Finance-Health Ministers’ Meetings, including the one held in Yogyakarta on 21 – 22 June 2022, as well as Health Working Groups Meetings and their side events, and the Joint Finance-Health Task Force (JFHTF) Meetings. These meetings reflect the enduring commitment of the G20 members and partners to ensure better pandemic PPR by strengthening the global health architecture.

8. Furthermore, the side events recognized the need for enhanced G20 collaboration in addressing global health issues concurrent with the COVID-19 pandemic, particularly on the three topics addressed in the side events Tuberculosis (TB), the One Health approach, and Antimicrobial Resistance (AMR). The Ministers invite the future G20 presidency to continue to work on these important topics as appropriate.
The Ministers reaffirm the importance of addressing the continuity of health services beyond COVID-19, in light of the repercussions of the pandemic on physical and mental health, and social well-being, paying special attention to women and girls and to the needs of the most vulnerable, due in part to isolation, loss of life, unemployment, food insecurity, increased violence against women and girls, and constrained access to education as well as health services, including sexual and reproductive health, and increased social and economic inequalities. The Ministers encourage greater recognition of the impact of COVID-19 pandemic on health and care workers, including on their mental health.

10. The Ministers will continue promoting a healthy and sustainable recovery which builds towards achieving and sustaining Universal Health Coverage (UHC). The Ministers recognize the need to achieve UHC under the SDGs, and the importance of the UN General Assembly comprehensive review in 2023 on gaps and solutions to accelerate progress towards the achievements of UHC, emphasizing the need for strengthening primary health care as cornerstone of UHC.

Building Global Health System Resilience

11. The Ministers recognize the need for predictable and sustainable financing to support pandemic PPR. As initiated by the Saudi Arabian G20 Presidency, the Italian G20 Presidency and continued by the Indonesian G20 Presidency, and in collaboration with their Finance Ministry colleagues, Ministers welcome the provision of additional financial resources in this regard, including through the operationalization of the Financial Intermediary Fund for Pandemic Prevention, Preparedness and Response (PPR FIF/Pandemic Fund). The PPR FIF/Pandemic Fund is hosted by the World Bank, and has been established in close collaboration with the WHO which, as the lead international technical agency responsible for PPR and custodian of the IHR (2005), will play a central role in the PPR FIF/Pandemic Fund. The PPR FIF/Pandemic Fund complements the work of existing institutions and provides additional international financing for PPR, especially to support increased PPR capacities for eligible countries.

12. The Ministers recognize the important work accomplished by the G20 JFHTF, including gap analysis in PPR financing and their leadership in the development of the PPR FIF/Pandemic Fund. In this regard, Ministers continue to collaborate and coordinate with the G20 Finance Ministers, welcome ongoing discussions and future work envisioned for the JFHTF while ensuring that there is no duplication and fragmentation of the global health governance system. The Ministers look forward to the G20 Joint Finance and Health Ministers’ Meeting in November 2022, including providing guidance on next year’s JFHTF mandate.

13. The Ministers support the importance of balanced voice between contributors and co-investors in the PPR FIF/Pandemic Fund Governing Board and its decision-making on a transparent basis. As a financing mechanism that will promote a more coordinated approach to pandemic PPR investments, Ministers acknowledge the importance of relevant international and regional organizations in the PPR FIF/Pandemic Fund, including as Implementing Entities.

14. The objective of the PPR FIF/Pandemic Fund is to provide a dedicated stream of additional funding for critical pandemic PPR functions in eligible countries through investments and technical support at national, regional and global levels. The Ministers support that the identified priorities for the PPR FIF/Pandemic Fund should be science- and evidence-based, and answer priority financing needs. The Ministers commend the financial pledges by founding donors to the PPR FIF/Pandemic Fund, amounting to over USD 1.4 billion, and Ministers encourage additional pledges on a voluntary basis. The Ministers call on countries and philanthropies to contribute to the PPR FIF/Pandemic Fund, while also sustaining support for ongoing and longstanding domestic and global health investments, organizations, and initiatives.

15. The Ministers recognize the extensive COVID-19 immunization as a global public good. The Ministers welcome efforts by the Access to COVID-19 Tools-Accelerator (ACT-A) platform, including the COVAX Facility and other initiatives to promote equitable access to pandemic medical countermeasures. The Ministers recognize the ongoing need for mobilizing essential health
resources for PPR to future health crises, building on the lessons learnt from the existing mechanisms. In this regard, Ministers recognize the role of innovative and flexible partnerships in global health, such as Gavi, the Global Fund, CEPI, Unitaid, FIND, and the Medicines Patent pool, can play in close collaboration with WHO, UNICEF and its Member States in building global health resilience and response capacity against future pandemic threats. The Ministers note that the result of the ACT-A External Evaluation can be used as input for future discussions under the Indian G20 presidency on platforms for pandemic medical countermeasures mobilization. These discussions should include consideration of global and regional networks with balanced decision-making and governance.

16. Therefore, any such future initiatives for pandemic medical countermeasures should make efforts in closing gaps in development of timely and equitable access to medical countermeasures during and between emergencies. With regard to such future initiatives, the G20 and WHO have important roles to play, working with various stakeholders, including non-G20 countries, LMICs, multilateral organizations, relevant actors, and civil societies.

17. The Ministers recognize the importance of a strong and adaptable global health architecture and underscore the role of the multilateral trading system with the WTO at its core in supporting increased resilience for COVID-19 and future pandemics. The Ministers acknowledge the adoption at the WTO’s 12th Ministerial Conference (MC12) of the Ministerial Declaration on the WTO Response to the COVID-19 Pandemic and Preparedness for Future Pandemics and the Ministerial Decision on the TRIPS Agreement. As the Trade Ministers agreed at MC12, no later than six months from the date of the Ministerial Decision on the TRIPS Agreement. WTO Members will decide on its extension to cover the production and supply of COVID-19 diagnostics and therapeutics.

18. In pandemic PPR, surveillance, including genomic surveillance, through the One Health approach, is crucial in order to detect pathogens and antimicrobial resistance that may cause outbreaks in humans. To enable global pathogen surveillance as part of their commitment to implement the IHR (2005) and a timely response to disease outbreaks and related emergencies, Ministers encourage sharing of pathogen data, in a timely manner on shared, and trusted platforms in collaboration with WHO. The Ministers encourage sharing of benefits arising from the utilization of pathogens consistent with applicable national laws. The Ministers encourage access to genomic sequence data to be in a safe and secure, equitable, transparent, and timely manner. Such access should be governed by the principles of sustainability, accountability, and balanced with sound principles for scientific data management and stewardship.

19. Therefore, Ministers recognize the role of existing international data sharing platforms that played a critical role in global pathogen surveillance especially during the COVID-19 pandemic. Working with the Quadripartite to encourage these platforms to ensure interoperability, as well as to include other pathogens with pandemic potential or public health threats is welcomed. The Ministers encourage countries to enhance cooperation in genomic surveillance and provide support to such platforms. The Ministers also welcome the establishment of the WHO Hub for Pandemic and Epidemic Intelligence.

**Harmonizing Global Health Protocols**

20. A lack of coordination of the implementation, adjustment, and lifting of international travel-related measures during the COVID-19 pandemic has hampered the full recovery of people and mobility of goods to pre-pandemic levels. Building on their Leaders’ commitment to facilitate international travel in a safe and orderly manner, Ministers acknowledge the importance of shared technical standards to facilitate seamless international travel, interoperability, and recognizing digital and non-digital solutions aligned with countries’ relevant legal provisions including those used for COVID-19 proof of vaccination or verification of tests as well as the IHR (2005) which provide an overarching legal framework for addressing public health emergencies that have the potential to cross borders.
1. Recognizing that a range of COVID-19 digital and non-digital certification systems exists, Ministers endeavor to move towards interoperability of systems including mechanisms that validate proof of vaccination, whilst respecting the sovereignty of national health policies, and relevant national regulations such as personal data protection and data-sharing.

22. The Ministers acknowledge and value the ongoing work, including by relevant international organizations such as WHO, the International Civil Aviation Organization, the International Maritime Organization, OECD, and Global Digital Health Partnership (GDHP) in improving trusted, cross-border interconnectivity and health systems to facilitate international travel and support global collaboration in health. The Ministers support ongoing innovations emanating from the learning of COVID-19 pandemic management that have the potential to facilitate international travel and Point of Entry requirements.

23. The Ministers acknowledge the important role of trust networks and interconnectivity between countries in recognizing digital and nondigital health certificates that are in line with countries' underlying health regulations. The Ministers respect the autonomy of each country in a federated manner to achieve interoperability of the various digital vaccination certificate that are in line with national and international health regulation such as IHR (2005). The Ministers acknowledge that continued global cooperation is necessary to establish trust among countries and Minister support continued international dialogue and collaboration on the establishment of trusted global digital health networks as part of efforts to strengthen prevention and response to future pandemics. Further steps should capitalize and build on the success of the existing standards and digital COVID-19 certificates.

Expanding Global Manufacturing and Research Hubs for Pandemic PPR

24. The COVID-19 pandemic has highlighted the importance of early and continued investments in medical countermeasure product research and development and manufacturing ecosystems to close gaps that contribute to inequitable access to countermeasures particularly during pandemics.

25. The Ministers recognize the need for strengthening sustainable global and regional research and development networks as a critical part of pandemic preparedness efforts across G20 countries including strategies for sharing technology, knowledge and data on a voluntary and mutually agreed terms to facilitate better access to affordable Vaccines, Therapeutics, and Diagnostics (VTDs) globally, especially in developing countries for future pandemics. The Ministers commit to nurturing under WHO coordination an ecosystem of manufacturing and research and development, which encourages strong collaboration between academia, government, research institutions, civil society, philanthropic foundations, international organizations, and private entities. The Ministers acknowledge the importance of public-private partnership, technology transfer, and knowledge sharing on voluntary and mutually agreed terms.

26. The Ministers highlight the importance of building on existing and emerging research and manufacturing networks as well as existing organizations contributing to safe and effective VTDs to avoid unnecessary duplication and fragmentation while identifying capacity gaps and exploring new collaborative models. Furthermore, Ministers recognize the need for a mapping exercise and gap analysis of existing networks in partnership with international organizations as well as other information including lessons learned that will inform the preparation of the action plan for strengthening VTD manufacturing and research networks could bring added value. Next steps, will be considered under the Indian G20 Presidency. The Ministers support the WHO mRNA Vaccine Technology Transfer hub in South Africa and two centers in Brazil and Argentina as regional hubs, as well as the spokes in all regions of the world with the objective of sharing technology and technical know-how on voluntary and mutually agreed terms. The Ministers acknowledge that 7 countries, namely Argentina, Brazil, India, South Africa, Saudi Arabia, Türkiye, and Indonesia, have volunteered to participate and support an initiative for VTDs manufacturing and research network.

27. In nurturing a manufacturing ecosystem, Ministers recognize the need and the opportunity to build on existing and emerging networks that are already contributing to more distributed manufacturing
of VTDs while avoiding duplication of effort. These include the network of manufacturers established as part of the mRNA Vaccine Technology Transfer Programme, led by WHO and the Medicines Patent Pool (MPP), CEPI’s network of preferred partners and the network of MPP-licensed generic therapeutic manufacturers established to ensure geographically distributed supply of COVID-19 anti-viral drugs.

28. Acknowledging the importance of swiftly reacting to pandemics, Ministers will support science to shorten the cycle for the development, manufacturing, and distribution of safe and effective VTDs, with the ambition to develop VTDs from 300 to 100 days in the long term acknowledging the differences in challenges to develop vaccines compared to therapeutics and diagnostics, following the identification of such threats while maintaining strong regulatory oversight and public confidence, and work to make them affordable and widely available. The Ministers acknowledge the importance of strengthening regulatory systems so that they are prepared for pandemic events. Additionally, Ministers acknowledge the importance of training the workforce from LMICs to bridge the gap in accessing VTDs, such as the Korean Global Training Hub for Biomanufacturing, with the support of WHO Academy.

Side events on Tuberculosis, Antimicrobial Resistance, and Implementing a One Health approach

29. The COVID-19 pandemic highlighted the importance of implementing a One Health approach to prevent, prepare and respond to health emergencies and diseases outbreaks, since pandemics are frequently caused by zoonotic pathogens. Further, the COVID-19 pandemic has slowed, and in some context eroded, progress made in both TB control and combating AMR that eventually hampers the achievement of Sustainable Development Goals (SDGs). The Ministers commend efforts made by the Indonesian G20 Presidency to place these issues on the G20 agenda and to prioritize addressing the TB and AMR threats, and strengthening support for the One Health approach.

30. The Ministers advance their efforts to address TB by integrating TB response with domestic and international efforts to achieve SDG target 3.3, and in parallel to accelerate research and innovation. In particular, Ministers recognize the ongoing need for financing efforts to combat TB and acknowledge the donations to date to the Global Fund in the effort to achieve the US $18 billion target for the ongoing Seventh Replenishment of the Global Fund, which provides 76 percent of all international financing for TB.

31. The Ministers acknowledge the critical component of the One Health approach in improving human, animal, and environmental health and developing multi-level resilience across countries, and Ministers recognize the technical leadership and coordinating role of the Quadripartite (WHO, FAO, WOAH, and UNEP), to improve the health of humans, animals, plants, and the environment, including the contribution of the One Health High-Level Expert Panel (OHHLEP), particularly its work on a definition of One Health.

32. The Ministers reaffirm the importance of strengthening national AMR governance, stewardship, and infection prevention control. The Ministers encourage G20 countries to implement the AMR National Action Plans and monitor progress through the Quadripartite Tracking AMR Country Self-Assessment Survey. The Ministers acknowledge the need to strengthen existing surveillance systems, such as laboratory-based surveillance, for integrated One Health surveillance to provide more robust data on priority pathogens and resistance mechanism, supported by the Quadripartite for early warning of AMR emergence and spread. The Ministers support initiatives to catalyze AMR research and development. The Ministers note the upcoming establishment of Independent Panel on Evidence for Action Against AMR, as recommended by the IACG with a scope concurred by UN Member States. The Ministers support national, regional and global initiatives on AMR research and development clinical trial networks, regulatory reforms and market access strategies in accordance with national laws and regulations. The Ministers reaffirm the importance of achieving the five objectives defined in the Global Action Plan on AMR. The Ministers also reaffirm their commitment to strengthening infection prevention, and control program and antimicrobial
stewardship, as well as affordable and equitable access to VTDs to address the ever-growing threat of AMR. The Ministers will explore the appropriateness of the inclusion of AMR in the proposed international instrument on pandemic PPR.

33. In line with the three side-events, Ministers support the Lombok G20 One Health policy brief, Call to Action on Financing for TB response, and Call to Action on AMR as Annexes to this document.

Way Forward

34. The Ministers express their commitment to take forward efforts accomplished during Indonesia's G20 Presidency on the Action to Strengthen Global Health Architecture. The Ministers thank the Presidency for steering the Health Working Group and advancing the momentum on multilateral collaboration to "Recover Together, Recover Stronger." The Ministers also thank International Organizations and other stakeholders involved in taking forward the Presidency's priorities.

35. The Ministers welcome India's Presidency of the G20 during which Ministers look forward to progressing substantive discussions inter alia on strengthening health emergencies prevention, preparedness and response, strengthening cooperation with the pharmaceutical sector and in quality and affordable medical countermeasures, as well as digital health solutions to aid achievements of UHC and other SDGs.

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The Lombok G20 One Health Policy Brief

Context

This policy brief sets out seven recommendations to strengthen the One Health approach, highlighting ways in which this approach can improve health systems and develop multi-level resilience in all G20 countries at all levels. Various technical aspects of the brief have been developed and updated following a process of consultations at three G20 One Health pre-event meetings and a G20 One Health side event, while gap mapping analysis has also been conducted by the World Health Organization (WHO) One Health Initiative team on behalf of the Indonesian G20 Presidency. During this series of meetings, G20 members and invited countries, alongside several international organisations, discussed a broad spectrum of One Health components, that is important to prevent, predict, detect, prepare for, and respond to global health threats.

This brief is informed and guided by previous efforts, such as the Rome Leaders’ Declaration¹, the Global Health Summit, the G20 Joint Finance and Health Ministers’ Communiqué², and the Call to Action on “Building One Health Resilience”³. As such, it leverages and positions technical leadership and the coordinating role of the Quadripartite (WHO, Food and Agriculture Organization/FAO, World Organization for Animal Health/WOAH and United Nations Environmental Programme/UNEP); and is supported by the One Health High-Level Expert Panel (OHHLEP), an advisory panel to the Quadripartite, that supports their provision of evidence-based scientific and policy advice to address the challenges in preventing, predicting, detecting, preparing for and responding to global health threats, in order to improve the health of humans, animals, plants and the environment. This includes promoting health and Sustainable Development Goals (SDGs), through the adoption of the One Health approach.

Global health challenges necessitate a One Health approach

The COVID-19 pandemic has clearly demonstrated the importance of undertaking a One Health approach to address health threats, recognizing the interconnectedness between the health of humans, animals, plants, and the environment; biodiversity; and food systems. It highlighted existing vulnerabilities and inequalities worldwide, with wide-ranging consequences for populations who have been historically marginalised and excluded. It underscored the importance of resilient and sustainable health systems and the need to implement systems and structures that are capable of preventing and mitigating threats in relation to the human-animal-plant-environment interface. Through the adoption of the One Health approach, systems can enable greater resilience for the health of individuals and communities, thereby helping to ensure that the overall health of humans, animals, plants, and the environment are considered simultaneously, for the benefit of present and future generations.

In the future, we will be confronted with zoonotic infections that may develop to cause epidemics and pandemics, and new and existing strains of multidrug resistant pathogens, as well as other health threats. Threats will continue to emerge or re-emerge, putting lives at risk, endangering animal health, threatening ecosystems, food security and damaging the global economy, fuelled by changing climate conditions. A transformative approach is required in our relationship with the

³https://www.salute.gov.it/imgs/C_17_pagineAree_5459_10_file.pdf
environment and how we address the emergence, re-emergence, spill-over and spread of disease. Importantly, we must acknowledge that climate change and biodiversity loss undermine life-supporting systems essential to human and animal health existence. This will involve placing greater emphasis on prevention—including infectious disease prevention and control, infection prevention and control, accurate laboratory detection, and appropriate epidemiological response—and preparedness; and investing in measures that take stock of, analyse and act on the complex economic, social, and environmental determinants of health.

Breaking the silos that exist between sectors and disciplines will require innovative approaches and strengthening of social, administrative, scientific and political will. Greater investment in applied and multidisciplinary implementation research, including in social behaviour change across the spectrum from building new knowledge to piloting and scaling is needed to enable sustainable, locally relevant scientific and evidence-based interventions that channel scientific inquiry toward positive change. The One Health approach provides a cohesive framework for this transformation, as it encompasses a multisectoral approach relevant to innovation, sustainable development and economic growth.

One Health offers a powerful approach for understanding and transforming systems. Crucially, it takes the connectivity, complex interdependencies between the health of humans, animals, plants, including ecosystems, and the interdisciplinary knowledge and expertise into consideration. A definition of the One Health approach developed by the OHHLEP reiterates the need for effective collaboration across sectors and disciplines, along with the importance of communication, coordination and capacity building in this process. This integrated and holistic approach helps to address the underlying drivers of zoonotic disease, Antimicrobial Resistance (AMR) emergence and other related health threats, thereby improving disease prevention and preparedness, mitigating the impacts of health risks and threats, implementing science-based and sustainable solutions, hence promoting long-term health for all.

To prevent, predict, detect, prepare for and respond to emerging health challenges, all relevant sectors must collaborate in an integrated manner—to achieve together what can not be achieved alone. The SDGs provide a framework towards improved economic, environmental, climatic, food system and social sustainability; however, to achieve these goals, we must first scale up joint efforts across sectors and address the damaging impact that recent health challenges have had on progress towards the achievement of SDGs. Only then can we make necessary strides towards balancing and optimizing the health of humans, animals, plants and the environment.

**How to implement One Health effectively and successfully**

The One Health approach needs to be applied globally, regionally, bilaterally, nationally, and locally, involving all relevant sectors and groups in society and linking all layers, considering different national capacities from high-level policies to activities on the ground, including community engagement. This includes fostering a common understanding of the One Health approach and promoting One Health governance at all levels, thereby enabling countries to operationalise One Health at scale. It is critically important that multisectoral and interdisciplinary collaboration be facilitated, through the provision of platforms and opportunities for engagement with all relevant stakeholders. Mapping of key stakeholders should be done for each One Health priority since focal points for different One Health priorities are not the same in most countries. Resources should be mobilised, evidence-based data should be identified and validated, information should be shared in a timely manner, measures and actions to enable better access to digital health and environmental data sharing in collaboration with international governance should be implemented.

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The gaps that exist between institutions and disciplines represent barriers to the effective tackling of One Health challenges and must therefore be bridged. The success of a One Health approach depends on strong political commitment. This means long-term engagements at all levels, spanning all relevant sectors of government and championed by Heads of State. A whole-of-society approach demands engagement with all levels of government, the private sector, civil society, academia, and the media in their respective roles as policymakers, regulators, implementers, practitioners and influencers. Despite lessons learned from multiple health challenges, disease outbreaks and epidemics in the past, investment in the One Health approach to diagnostic surveillance and response systems remains limited, fragmented and has proved to be unsustainable. The World Bank estimates that an annual investment of approximately US$1.9-3.4 billion is required to build and operate systems for effective disease prevention and control in low- and middle-income countries (LMICs). Investments to strengthen capacities to prevent the onset of a pandemic comes with an expected 86 percent annual rate of return and when directed toward sustainable improvements in resilient and responsive health systems improve lives and livelihoods. However, insufficient attention has been given to preventative measures and the reduction of risks to the health of humans, animals, plants and the environment. Greater collaborative dialogue is therefore required between human, animal, plant, and environmental health organisations and the financial sector, in order to secure long-term funding and investment. Crucially, One Health provides the mechanism by which these dialogues and the resulting funding mechanisms can be successful.

One Health should not be considered separately or in isolation, but rather as an integral component of investment packages. Cost benefit analyses can provide insights into the benefits of programmes and their sustainability, focusing on the interface of the health of humans, animals, plants and the environment. This may include containment of AMR, preventing and reversing environmental pollution and degradation to safeguard ecosystems, tackling the effects of climate change, conserving biodiversity and mitigating climate change impact, and strengthening an integrated health surveillance system for pest, disease and environment. It also covers activities for improving air quality, advancing animal health and welfare, combatting AMR, strengthening animal production sanitation along the value chain, improving human sewage and water sanitation, improving laboratory capacity and public health systems, strengthening multisectoral one health workforce capacity through pre-service and in-service education, and developing and implementing multi-sectoral plans with all relevant stakeholders to improve and maintain health. All these initiatives are necessary and fiscally prudent, given that the cost of inaction is far greater than the price of prevention.

By integrating data and knowledge systems, while also conducting joint surveillance and workforce development, One Health systems can be strengthened. This has potential to increase capacity to manage epidemic and pandemic infectious diseases; augment efforts to address neglected and endemic chronic and infectious diseases, including zoonotic diseases, vector-borne disease threats; improve availability of safe, quality food; and water; and improve prevention, rapid detection, and control emergence and spread of pathogens with antimicrobial resistant strains across all One Health sectors. The traditional separation of sectors and disciplines, as well as, their increasing divergence due to specialisation, poses a significant challenge to the development and implementation of an integrated, transdisciplinary approach. This tends to contribute to the widened gaps in One Health implementation. In this sense, it is important to share information and data from the different sectors involved in order to ensure an integrated monitoring of the different relevant areas. A monitoring and evaluation framework for One Health priorities based on a domestic risk analysis and taking into account national context is therefore suggested to identify and address gaps in where a One Health approach should be implemented.

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Seven steps to improve One Health implementation

G20 members, alongside various international organisations, considered the following seven steps to better implement the One Health approach. The G20 will take into account these seven recommendations. The G20 will also consider these recommendations in their work with their global partners, recognising that the uneven distribution of health threats will necessitate support for countries that are disproportionately affected and those with comparatively limited resources for prevention.

The following recommendations are based on the recently developed One Health Joint Plan of Action (2022-2026) (OH JPA)⁶ by the Quadripartite and guided by recent findings from G20 One Health pre-events meetings, the One Health implementation gap mapping analysis done by most of G20 and analysed by the WHO One Health Initiative. These recommendations support the implementation of One Health systems locally, nationally, bilaterally, regionally, and globally in order to strengthen capacities and build more resilient and responsive health systems to address complex multi-dimensional health risks. These recommendations espouse multi-sectoral action, collaborative governance, inclusiveness, equity and multi-level cooperation, taking into account socio-cultural and economic issues in the context of One Health. To bring them to fruition, sustained financing for the operationalisation of One Health will also be required.

We hereby affirm that the Quadripartite should continue to take a leading role in providing technical support in supporting a One Health approach for countries and international society. We welcome the Quadripartite’s role in One Health financing and recognise that multilateral development banks, and other global financing mechanisms and institutions should also play a more active role in financing for One Health. We also note that this international financing should be supported by an increase in One Health financing at the domestic level.

1 | Raise awareness and advocacy for a One Health approach priorities

with key stakeholders in relation to the interconnectedness of human, animal, plant and environmental health. This includes working with policy and decision makers in communities to convey the benefits of interdisciplinary cooperation and primary prevention (e.g., spillover prevention), conserving natural ecosystems and raising awareness of the health and economic benefits they provide. Risk factors and drivers need to be identified, along with practical solutions for risk mitigation and spillover prevention. In recognition that there is no time to waste on inaction or fragmented initiatives, the One Health approach has to be acted upon immediately by all relevant sectors. A common understanding of the One Health Approach should be based on the definition published by the OHHLEP and endorsed by the Quadripartite. Moreover, the One Health approach should be integrated into the new pandemic agreement currently being discussed at WHO.

2 | Identify gaps and opportunities

by engaging in comprehensive and regular assessment, monitoring and evaluation. At the regional, national and sub-national level, governments should support both the development and implementation of One Health action plans according to the respective priorities of countries. This involves making use of existing tools, surveillance mechanisms and instruments for this purpose adapted as per region, country, sub-national context; bringing sectors and disciplines together, backed by regulatory frameworks where appropriate, to make collective decisions on how to act on the assessments findings. In this regard, we acknowledge the G20 Self-Assessment Questionnaire exercise that could be further utilized by the Quadripartite to support this process.

⁶ https://www.who.int/news/item/01-12-2021-tripartite-and-unep-support-ohhlep-s-definition-of-one-health
Develop mechanisms to support an overarching One Health governance and coordination framework. This approach should be applied where relevant, to leverage existing solutions and develop mechanisms to support an overarching One Health governance using Quadripartite structures and coordination framework based on international standards for all relevant policies and programs. This includes fostering a whole-of-society and whole-of-government integrated approach in the spirit of One Health collaboration, as per country context at the national and sub-national level. This will help to ensure that decision-makers and practitioners across health and related sectors (i.e., doctors, veterinarians, nurses, pharmacists, microbiologists, farmers, environmentalists, natural resource managers, sanitarianism health regulatory agents, community workers, paraprofessionals and educators) can coordinate and collaborate to prevent, predict, detect, prepare for and respond to health threats at global, regional and national levels. Ultimately, this approach will help to improve the health of humans, animals, plants, and the environment, while also contributing to sustainable development. To that end, society as a whole should recognize the basic principles and core benefits of the One Health approach.

Develop science- and evidence-based business cases for funding or investment in One Health, with building on initiatives at the community, national, cross-border, regional, and global levels. This needs to be practical and based on country priorities or needs to support national and sub-national authorities (including ministries of health, agriculture, environment, finance and other related ministries) and relevant agencies in their assessment and decisions on investments in One Health. This will be underpinned by achieving goals, not only considering economic gain, but also the outcomes on the main objectives, such as human livelihood, animal health and wellbeing, social development, animal welfare, conservation of ecosystems and biodiversity.

Be Guided by the Quadripartite’s One Health Joint Plan of Action as a blueprint for action for countries and stakeholders as appropriate, allowing them to strengthen collaboration and mainstream the One Health approach at global, regional, country national and sub-national levels (especially in large countries with a federal government structure). This includes developing national One Health plans and/or integrating One Health into relevant plans considering the principles prioritized by the OH JPA, including appropriate, actionable and measurable targets; mobilize sustained investment; promote a whole-of-society approach; and pursue collaboration, learning and exchange across regions, countries, and sectors to enhance One Health capacities to strengthen health systems. Examples of action plans that would benefit from this guidance include those which reduce the risks from emerging and re-emerging zoonotic epidemics and pandemics; control and strive to eliminate endemic zoonotic, neglected tropical, address wildlife dimensions, and vector borne diseases; strengthen assessment, management and communication of food safety risks; and integrate the environment aspects.

Implement the One Health approach in all relevant policies to better prevent, predict, detect, prepare for and respond to health threats arising from the linkages between humans, animals, plants and the environment. Responses to zoonotic diseases should be evidence-based on the best available science and data, taking the wider implications for ecosystems into consideration. Sustainable and effective communication, coordination and collaboration between those sectors is therefore a critical aspect of all efforts geared towards disease prevention, preparedness and response, and efforts to address the related
aspects in this regard. Lack of a One Health approach implementation can hamper efforts to prevent chronic, non-communicable and infectious diseases, including future outbreaks, epidemics, and pandemics which will likely arise at the nexus of human-animal-environmental interactions.

7 | Facilitate One Health research, knowledge sharing, capacity building and voluntary knowledge transfers by creating an enabling environment in which learning research and knowledge sharing can thrive. This involves creating synergies and promoting frameworks and processes including collaborative learning and research and knowledge sharing that facilitate and promote One Health action, investing in research and expert researchers to increase our collective understanding and knowledge on One Health contexts, while also building on the expertise of relevant organisations, communities, and R&D partnerships. By increasing scientific insight, consolidating lessons learned, demonstrating best practices, setting up knowledge sharing networks, more effective One Health approaches can be implemented. By enhancing networking opportunities and providing training and increased awareness, a more skilled, informed, and competent health and other related workforce will be prepared to address One Health priorities. Moving forward, this international network of One Health experts can then be mobilised and deployed where and when they are needed. This network can include, among others, various community health workers, facility-based health workers, community-based animal health workers, sanitarians, health regulatory agents, environmental health professionals (rangers and others), social health workers, sanitary agents, farmers, veterinarians, domestic animal owners and environmentalists, as well as human, plant, animal, and environmental laboratory, surveillance, and epidemiological experts, economists, and sociologists. To enable capacity building at all levels, opportunities that emerge from these interactions can be leveraged for individual, community and institutional learning, research, and education information exchange; this includes tertiary and professional education, along with initiatives aimed at coordinating programmes, partnerships, research and networks at the international level.

In conclusion, the G20 members can set an example for countries, particularly for LMICs and support them in the implementation of a One Health approach. These recommendations are key to informing decision-makers and enabling coordinated actions and public policies. A combination of these actions, when effectively implemented collaboratively and multilaterally, can help to balance the health of humans, animals, plants, and the environment to ensure healthy lives and promote well-being.
ANNEX-1

CALL TO ACTION ON
FINANCING FOR TB RESPONSE
This Call to Action on Financing for TB Response has been drafted by the Indonesian G20 Presidency in consultation with G20 members, in collaboration with World Health Organization, Stop TB Partnership, Global TB Caucus, Global Fund, USAID, World Bank, and Stop TB Partnership Indonesia without prejudice to members’ views and does not purport to suggest agreement among G20 members on these issues. This Call to Action is attached to the Chair’s Summary Health Ministers’ Meeting of the G20 2022 as an Annex.
1. **Tuberculosis (TB)** is one of the leading causes of death among infectious diseases, claiming more than 4,100 lives a day. It remains the leading killer of people with HIV and a major contributor to antimicrobial resistance related deaths.\(^7\)

2. The COVID-19 pandemic has significantly disrupted access to TB services. As a result, there was an 18% drop in the number of people newly diagnosed and reported in 2020, and the number of people who died of TB increased to 1.5 million. Global spending on TB services also decreased for the first time since 2016, potentially derailing fragile gains made to date.\(^8\)

3. The combined impact of TB and COVID-19 is fueling inequalities and shattering economies. WHO estimates that, on average, 47% of TB-affected households face costs that equal more than 20% of household income or expenditures, and that an estimated 1.9 million incident cases of TB are attributable to undernutrition.\(^9\)

4. Worsening socioeconomic conditions as a result of the COVID-19 pandemic is anticipated to further fuel the TB epidemic, especially in the absence of wide coverage of social protection and universal health coverage for vulnerable persons.\(^1,3,8\) It is estimated that failure to meet the targets in the World Health Organization’s (WHO) End TB Strategy could result in 31.8 million TB deaths and US$17.5 trillion lost from 2020 to 2050.\(^9\)

5. Lack of adequate financing remains the most important barrier to ending the TB epidemic. It is estimated that the world needs at least $13 billion in 2022 and $19.6 billion each year from 2023-2030\(^10\) to end the TB epidemic. With only $5.3 billion invested by countries in 2020, as per WHO monitoring of the financial TB response notes, this means global investments need to increase fourfold by 2023 to achieve the funding needed.\(^11\)

6. An additional US$4 billion per year will be required to support research and development of new diagnostics, medicines and vaccines necessary to end TB, this means quadrupling the currently available US$0.9 billion\(^11\) investment. G20 member countries account for almost 50% of all new infections and deaths due to TB and possess strong financial capacity, and the know-how to mount a robust TB response.\(^12\)

7. Furthermore, G20 Members have consistently committed to address tuberculosis, particularly multidrug-resistant TB (MDR TB), as part of the global AMR response. Despite these high-level commitments, the 2020 progress report by the United Nations Secretary General notes that both actions and investments fell far short of those needed to reach agreed targets, particularly among children, and outlined ten recommendations to accelerate progress.\(^12\)

In light of the above, we, the representatives of G20 Member countries who met at the first Health Working Group Side Event "Financing TB Response: Overcoming COVID-19 Disruption and Building Future Pandemic Preparedness":

A. Reaffirm our commitment to meet the targets set for ending tuberculosis by 2030 under the Sustainable Development Goals and the WHO End TB Strategy, and in the Political Declaration of the UN High Level Meeting on TB, by strengthening international ties and working together to ensure a holistic, sustainably financed, and accountable response to TB

B. Recognize the important role of the G20 members in strengthening the global response to end TB by promoting health and disease prevention — including through infection prevention and control (IPC) activities, accurate laboratory detection and appropriate epidemiological responses — and leveraging policy and financial tools to foster an inclusive and sustainable approach.

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\(^12\) United Nations. (2021). Progress towards the achievement of global tuberculosis targets and implementation of the political declaration of the high-level meeting of the General Assembly on the fight against tuberculosis (A/75/236)
world, as envisioned in the WHO End TB Strategy and the 2030 Agenda for Sustainable Development; Recognize the zoonotic potential of TB, i.e. apply the One Health approach.

C. Provide leadership in the preparation for the 2023 United Nations General Assembly High-Level Meeting on Tuberculosis to ensure sustained commitment and action to end TB, with support from the World Health Organization, Stop TB Partnership and other relevant stakeholders.

D. Recognize the critical and catalytic role political leaders play in shaping the urgency and degree of effort required to meet the 2030 End TB targets, including raising additional resources to address unmet needs.

E. Acknowledge the central role of the World Health Organization in coordinating the global response to end TB, and in monitoring the global financing landscape for TB prevention, diagnosis, treatment and care, in close collaboration with the Stop TB Partnership and other relevant stakeholders, including civil society and affected communities, and the central role of Member States.

F. Welcome the commitment and support for the Global Fund to fight AIDS, TB and Malaria, through the Seventh Replenishment held in September 2022 to help significantly increase the allocation for TB programmes to close critical funding gaps especially in LMICs, acknowledging that the Global Fund is the largest multilateral provider of grants for HIV, TB and Malaria and contributes to mitigating the impact of COVID-19 on progress made against other infectious diseases and on fragile health systems and contributes to strengthening pandemic preparedness.

G. Underscore Unitaid’s critical role in fighting against tuberculosis, as the world’s largest multilateral donor of tuberculosis research and development, helping to make diagnostics and treatment available and affordable.

H. Promote adequate and sustainable investment in prevention — including through IPC activities, accurate laboratory detection, and appropriate epidemiological responses — research, capacity building, voluntary licensing and voluntary technology transfer in mutually agreed terms, digital health including real-time surveillance and health information systems, to accelerate the pace of development, manufacturing, and deployment of new tools and countermeasures including vaccines, diagnostics and safe, effective, and shorter treatment regimens for combating drug-resistant forms of TB, in the context of the global AMR response.

I. Promote efforts to end TB as part of an effective One Health multisectoral approach to combat AMR with relevant sectors and agencies. include actions to combat MDR and XDR-TB in the implementation of national AMR action plans that require support and collaboration at the local, national and regional levels; where appropriate based on burden.

J. Drive rights-based, gender-sensitive multisectoral approaches, policies, and service delivery innovations which address barriers that limit access to services.

K. Forge partnerships with all relevant stakeholders, including TB survivors, parliamentarians, civil society, technical and multilateral agencies, development banks, and the World Health Organization, among others, to ensure that the world recovers from the TB crisis. We pay tribute to all health care professionals and frontline workers for the essential services they are providing to our societies and citizens.

\[13\] Including through IPC activities, accurate laboratory detection, and appropriate epidemiological responses.
The current trajectory in financing and implementing the TB response, including necessary research and development, is inadequate to ensure equitable and sustainable efforts to reach, diagnose and cure people with the deadly disease, and to prevent millions from becoming infected or ill. Building on the preceding G20 commitments, we call for G20 Member countries and partners to:

L. Mobilize adequate, predictable, and sustainable resources to close the funding gap and to enable universal access to WHO-recommended TB prevention — including through IPC activities, accurate laboratory detection, and appropriate epidemiological responses — diagnosis, treatment and care tools and services, especially in low and middle-income countries, through national, bilateral and multilateral channels as well as private investments, including through innovative financing mechanisms

M. Integrate the TB response within domestic and international financing mechanisms for social protection, humanitarian responses and pandemic preparedness to enable comprehensive, integrated multi sectoral response;

N. Support and enhance the application of existing multilateral platforms and funding mechanisms, to accelerate the development and availability of safer, more effective and affordable TB vaccines, diagnostics, and treatment regimens, considering issues of scalability, access, and manufacturing along the research continuum;

O. Prioritize TB financing in the G20 countries’ and to accelerate progress towards closing TB investment gaps in the context of the 2023 United Nations High Level meeting on TB;

P. Increase funding for the development of more effective TB vaccines and TB diagnostics — including point of care tests, by 2025, drawing on lessons learnt from the unprecedented progress made in COVID-19 research and development;

Q. Foster multi country collaborations for undertaking TB research for development and validation of new tools for diagnosis, treatment and prevention of TB disease and infection.

R. Leveraging strengths of collaborating countries to develop detailed plans for TB research.

S. Ensure the highest political commitment for multi sectoral partnership to streamline the comprehensive implementation of evidence based policy required to halt the TB epidemic.

T. Enhance community engagement by encouraging community support to TB patients with an objective to provide additional patient support to improve treatment outcomes.

U. Engage with public and private partners to develop effective, affordable, rapid, and easy-to-use tools for screening and diagnosing TB infection and disease; for detecting drug resistance, and for monitoring treatment outcomes at community level in low resource settings;

V. Mobilize domestic resources in high TB burden countries to strengthen and integrate community efforts within the formal TB response and health system;

W. Recommend rapidly transitioning to real-time surveillance data and advanced technology utilization for TB response;

X. Ensure continuity of equitable and high-quality treatment, care and support services for mobile populations, including internally displaced people and migrants and programming that address the needs of the most affected and populations in vulnerable situations, for a more efficient and effective TB response.
1. Antimicrobial resistance (AMR), in particular antibiotic resistance, is among the top ten global public health threats and an urgent health challenge for the next decade. Emerging AMR potentially risks eroding many of the health and development advances of modern medicine and achievement of the Sustainable Development Goals (SDGs). AMR does not recognize borders and affects humans, animals, plants, food, environment, trade and the world economy. Low-and-Middle Income Countries (LMICs) are disproportionately impacted by AMR as they often lack sufficient access to human and animal healthcare services and to quality and safe medicines, AMR and antimicrobial use (AMU) and antimicrobial consumption (AMC) functional and representative surveillance programs, waste management systems, wastewater treatment, sufficient laboratory and diagnostic capacity, appropriate governance and the regulatory frameworks needed to respond adequately to AMR. The COVID-19 pandemic has significantly disrupted AMR governance and implementation of interventions such as stewardship, surveillance, routine vaccination programs, and has increased inequality of access to healthcare and essential medicines in LMICs. It has also highlighted the urgent need for sustainable, equitable and cost-effective global and national joint responses. We will work to ensure that our collective COVID-19 response investments enhance improvements in national capacity to prevent, detect and respond effectively to AMR and explore the appropriateness of the inclusion of AMR in international instruments on pandemic prevention, preparedness and response currently under negotiation at WHO.

2. To better address the AMR threat, robust surveillance and monitoring are required globally: Accurate and reliable data on AMR, AMU and AMC is needed across humans, animals, plants, food and the environment. A recent study estimated that at least 1.27 million deaths per year are directly attributable to bacterial AMR (i.e. antibiotic resistance) and pointed to the limited existing high-quality data to inform policy decisions and science-based interventions at local, subnational, national, regional and global levels. We urge countries to join the WHO Global Antimicrobial Resistance and Use Surveillance System (GLASS) and participate in regional AMR and AMU surveillance networks. We encourage countries to also join the monitoring program on AMU in animals, through the WOAH ANImal AntiMicrobial USE (ANIMUSE) Global Database. We acknowledge the development of the International FAO Antimicrobial Resistance Monitoring (InFARM) data platform and system by the FAO for AMR in the food and agriculture sectors and AMU in crops. Furthermore, we also request the Quadripartite to update member states on TISSA, the upcoming Quadripartite platform for linking and referring current initiatives for AMR and AMU surveillance data across sectors (human, animal, plant, food, and environment) at the national, regional and global levels. We continue to be guided by the Codex Alimentarius on integrated monitoring and surveillance of foodborne antimicrobial resistance, and correspondingly, WOAH’s chapters around monitoring of the quantities and usage patterns of antimicrobial agents used in animals from the terrestrial and aquatic animal health codes.

3. Scaling up collaborative, coordinated, One Health AMR surveillance, risk assessment and interventions is required to contain and minimize health impact and health expenditure – in the

14 AMR has been declared as one of the top ten global public health threats facing humanity by WHO in 2019.
16 2021 TrACCS report.
human, plant and animal sectors - as well as socioeconomic and environmental consequences. Surveillance is critical for understanding and assessing the emergence and spread of AMR and effective pandemic preparedness, prevention and response efforts. Therefore, we encourage countries to empower on-the-ground, integrated One Health AMR surveillance efforts to improve the use of local data and strengthen national-level capacity. Scalable, proven One Health interventions exist, including implementation of biosecurity and Infection Prevention and Control (IPC) activities in human and animal health; pollution control and minimization - through clean water, sanitation and hygiene; vaccines where available and appropriate; antimicrobial stewardship capacity and programs to ensure responsible and prudent use of antimicrobials to preserve antimicrobial efficacy in healthcare, community and animal health; accurate laboratory detection, improved digital reporting and appropriate evidence and risk-based interventions to target priority microbes and infectious diseases and anticipate future risks; and strong governance at all levels. Prevention-focused actions and a specific focus on providing LMICs with support should be prioritized to mitigate the risks posed by AMR, as investments into tackling AMR will pay for themselves.\textsuperscript{22}

4. \textbf{Start somewhere, start small, now, and sustain efforts}: It is time to establish the steps needed for all countries to start somewhere, start small, and sustain actions based on One Health approaches whenever relevant. We recall the fictional One Health exercise at the 2018 G20 Argentina Presidency on the spread of antibiotic resistant \textit{Escherichia coli} through multiple transmission routes, between sectors and across borders and the WHO Tricycle Protocol in piloted countries. We encourage countries to monitor the WHO priority microbes, the bacteria identified in the monitoring framework of SDG 3 - including but not limited to \textit{Escherichia coli}, notably strains resistant to third generation cephalosporins and carbapenems, and methicillin-resistant \textit{Staphylococcus aureus} (MRSA) - as well as other nationally determined priority pathogens and commensal bacteria.

5. \textbf{We aim to increase equitable access to vaccines, therapeutics and diagnostic tools (VTDs) and innovative preventive tools, to prevent and control infections in human, plant and animal health}: We will prioritize provision and equitable access to affordable, safe, timely and quality assured antimicrobials, diagnostic tools and services and prevention measures using integrated science and risk assessments, including alternatives to antimicrobials when relevant, across sectors (humans, animals and plants), particularly for populations in vulnerable situations and ensuring responsible and prudent use of antimicrobials in all settings. We appreciate the new antimicrobials and affordable diagnostics being developed through global initiatives and the need to enhance global efforts to increase availability of new and existing VTDs for human and animal health. Extending the production of VTDs within LMICs, while ensuring antimicrobial stewardship and minimizing environmental pollution, can help diversify and strengthen their innovation and production capabilities.

6. \textbf{Progress has been made}: We welcome the new Quadripartite (FAO, UNEP, WHO, WOAH) Collaboration for One Health, supported by the One Health High-Level Expert Panel, and its efforts to coordinate joint One Health work through global activities addressing health risks at human-animal-food-plant-environment interfaces. We encourage the Quadripartite Joint Secretariat on AMR to emphasize that all actions on AMR should be grounded in strong science and sector-specific strategies and programs, while also advancing the One Health approach when relevant and the Global Action Plan on AMR. We welcome the integration of AMR as an action track of the One Health Joint Plan of Action (OH JPA). The G20 also welcomes the establishment of the Multi-Stakeholder Partnership Platform on AMR by the Quadripartite and building on the 2021 G20 Health Ministers’ Declaration, we also urge the swift establishment of the Independent Panel on Evidence

\textsuperscript{22} The 2018 OECD report “Stemming the Superbug Tide. Just A Few Dollars More” (https://www.oecd.org/health/stemming-the-superbug-tide-9789264307599-en.htm) showed that, in OECD countries, investments in a package of policies addressing AMR “would pay for itself within a year, and end up by saving 4.8 billion of dollars per year” and would “produce savings of about USD 1.5 for every dollar invested.”
CALL TO ACTION

a. We call for reaffirmed commitment from G20 Member States to lead by example and implement our own AMR National Action Plans (NAPs) across all sectors, in line with the Global Action Plan on AMR and to consider the integration of AMR action track of the OH JPA when updating NAPs. Where necessary and appropriate, we reaffirm our commitment to support each other and share knowledge and assistance with other G20 countries through existing bilateral and multilateral mechanisms. We encourage G20 countries to monitor progress on NAP implementation through the annual Tracking AMR Country Self-Assessment Survey (TrACSS)\textsuperscript{24}. The G20 encourages increased implementation of NAPs on AMR in LMICs, through new and existing national, bilateral and multilateral mechanisms, including the AMR Multi-Partner Trust Fund, relevant UN and multilateral organizations or other financial instruments. The G20 welcomes the Quadripartite’ s ongoing initiative of developing global and national AMR investment cases in collaboration with other stakeholders to enhance domestic and external funding for implementing high-impact AMR multisectoral interventions.

b. We call for Member States to address AMR with One Health AMR surveillance implementation and contribute to achieving the SDGs. We look forward to the creation of the Quadripartite Technical Group on Antimicrobial Resistance and Use Integrated Surveillance (QTG-AIS) to provide advice and guidance on the development of global and context-appropriate regional and country-level systems for integrated surveillance and the establishment of effective capacity across all sectors. We call for collaboration on strengthening surveillance systems among G20 countries, including capacity building to strengthen the quality, frequency and representativeness of the clinical, epidemiological, and microbiological data collection and data analysis so that those sharing data equally benefit from the information. The G20 welcomes the WHO project on AMR periodic nationally representative prevalence surveys in select countries, including Indonesia, to improve surveillance. The G20 strongly encourages contributing to regional and global surveillance architecture including GLASS and ANIMUSE, and to consider participation in global AMR and AMU monitoring initiatives in development, including the InFARM data platform and the TISSA integrated data platform. We encourage WHO to develop regional AMR surveillance networks in Eastern-Mediterranean and African Regions and collaboration with Asian networks. The G20 also supports FAO ATLAST in assessing and defining areas to improve laboratory capacity and the sharing of emerging AMR organisms in the food and agriculture sectors.

c. We call for commitment to enhance the coverage and quality of diagnosis of infections and resistant infections at all levels of the health system among the G20 countries. Stronger laboratory systems and reliable diagnostics are the basis for reliable surveillance data, and appropriate outbreak investigation, infection prevention and control and patient management. The G20 strongly encourages strengthening the capacity of microbiology laboratories at national and sub-national levels to diagnose disease and detect AMR, thereby facilitating timelier and more appropriate treatment, as well as the training of health professionals regarding the diagnostic process (including clinical examination). The G20 acknowledges the need for increased investments in diagnostic facilities and capacity development, including laboratory facilities, appropriate equipment, dedicated and trained staff, laboratory methods, internal and external laboratory quality assurance

\textsuperscript{23} https://www.who.int/groups/secure-expanding-sustainable-access-to-antibiotics

\textsuperscript{24} TrACSS – Has been renamed from “Tripartite” to “Tracking AMR Country Self-Assessment Survey” after the official inclusion of UNEP within the Quadripartite. www.amrcountryprogress.org.
and quality control, laboratory networking and diagnostic stewardship\textsuperscript{25}, including engagements with relevant international organizations.

d. **We call upon the United Nations Secretary General and the Quadripartite to establish the Independent Panel on Evidence for Action against AMR**, as recommended by the IACG, with a scope agreed by UN Member States. In response to the clear need for interventions to be guided by evidence, a focused, streamlined and sustainable panel is needed to generate, monitor and synthesize evidence on the drivers, risks and options for mitigation of AMR including its broader economic and social impacts. We recognize that the panel should align with existing and emerging global structures related to One Health and health security and iterate the importance of establishing the Panel prior to the 2024 High-Level Meeting on AMR.

e. **We call for strengthened engagement with the Global AMR R&D Hub, OECD, the Quadripartite and other international antimicrobial research and development organizations** wherever possible and relevant, including: Combating Antibiotic-Resistant Bacteria Biopharmaceutical Accelerator (CARB-X), GARDP, including its SECURE initiative and the Global Health Security Agenda - Antimicrobial Resistance Action Package (GHSA-AMR). The G20 encourages efforts to close GARDP’s funding gap to facilitate the “5 by 25” Initiative to deliver five new treatments by 2025. We encourage the convening of a discussion between Health and other relevant ministries and international organizations to promote collaboration and facilitation on research and development of new antimicrobials, while taking measures to preserve their efficacy, as well as effective and affordable diagnostic tools and vaccines, addressing unmet public health needs, across the One Health spectrum and other alternatives to antimicrobials and disease prevention and control measures.

f. **We call for improved infectious disease prevention and control.** The G20 will work to improve infectious disease prevention and biosecurity. Reducing the incidence of infections decreases the use of antimicrobials and the potential for antimicrobial resistant pathogens to spread. The G20 will work to ensure COVID-19 response investments in healthcare IPC results in sustainable improvements in national IPC capacity. Effective IPC programs are crucial to ending avoidable health-care-associated infections and the spread of AMR, and are the foundation of safe, effective, high quality health service delivery. The G20 recognizes the WHO IPC assessment framework (IPCAF)\textsuperscript{26} as a critical tool to support the implementation of the WHO Guidelines on core components of IPC programs.

g. **We call for the advancement of antimicrobial stewardship** as a priority area across the One Health spectrum. The G20 asks the Quadripartite support to increase advocacy across political, multilateral, and technical fora on the critical importance of preserving the effectiveness of existing antimicrobials. By focusing on the development of diagnostic tools that support appropriate use decisions when clinically relevant, the G20 will complement the G7’s research and innovation agenda. We also encourage the strengthening of the evidence base for the behavioral and social aspects of inappropriate use, to inform more effective and targeted stewardship-focused innovations.

\textsuperscript{25} https://apps.who.int/iris/bitstream/handle/10665/251553/WHO-DGO-AMR-2016.3-eng.pdf
\textsuperscript{26} https://www.who.int/publications/i/item/WHO-HIS-SDS-2018.9