FINDINGS AND RECOMMENDATIONS SUMMARY

See below for a summary of all the major findings and recommendations from the GHS Index. These are described in more detail beginning on page 39.

FINDINGS	DATA HIGHLIGHTS	RECOMMENDATIONS
OVERALL FINDING: National health security is fundamentally weak around the world. No country is fully prepared for epidemics or pandemics, and every country has important gaps to address.	 The average overall Global Health Security Index score totals 40.2 out of a possible score of 100 116 high- and middle-income countries do not score above 50 	National governments should commit to take action to address health security risks.
		Health security capacity in every country should be transparent and regularly measured, and results should be published at least once every two years.
		Leaders should improve coordination, especially linkages between security and public health authorities, in insecure environments.
		New financing mechanisms should be established to fill preparedness gaps, such as a new multilateral global health security matching fund and expansion of World Bank International Development Association (IDA) allocations to include preparedness.
		The Office of the United Nations (UN) Secretary-General should designate a permanent facilitator or unit for high-consequence biological events.
		Countries should test their health security capacities and publish after-action reviews, at least annually.
		Governments and donors should take into account countries' political and security risk factors when supporting health security capacity development.
		The UN Secretary-General should call a heads-of-state-level summit by 2021 on biological threats including a focus on financing and emergency response.
Countries are not prepared for a globally catastrophic biological event, including those that could be caused by the international spread of a new or emerging pathogen or by the deliberate or accidental release of a dangerous or engineered agent or organism. Biosecurity and biosafety are under-prioritized areas of health security, and the connections between health and security-sector actors for outbreak response are weak.	 81% of countries score in the bottom tier for indicators related to deliberate risks (biosecurity) 66% score in the bottom tier for indicators related to accidental risks (biosafety) Fewer than 5% of countries provide oversight for dual-use research No countries have legislation or regulations in place that require companies to screen DNA synthesis 92% of countries do not show evidence of requiring security checks for personnel with access to dangerous biological materials or toxins 	Governments and international organizations should develop the capabilities to address fast-moving pandemic threats.
		Governments should include measurable biosecurity and biosafety benchmarks in national health security strategies and track progress on an annual basis.
		A dedicated international normative body should be developed to promote the early identification and reduction of biological risks associated with advances in technology.
		Public and private organizations should invest a percentage of their sustainable development and health security portfolios in the area of biosecurity.
		Funders and researchers should provide incentives to identify and reduce biological risks associated with advances in technology and should invest in technical innovations that can improve biosecurity.
		Leaders should prioritize the development of operational linkages between security and public health authorities for biological crises.
		Countries and international organizations should prioritize the development of national biosurveillance capabilities and a global biosurveillance architecture.
There is little evidence that most countries have tested important health security capacities or shown that they would be functional in a crisis.	 85% show no evidence of having completed a biological threat–focused International Health Regulations (IHR) simulation exercise with the World Health Organization (WHO) in the past year 	Countries should test their health security capacities and publish after-action reviews, at least annually. By holding annual simulatic exercises, countries will show commitment to a functioning system. By publishing after-action reviews, countries can transparently demonstrate that their response capabilities will function in a crisis and can identify areas for improvement.
	Fewer than 5% show a requirement to test their emergency operations center at least annually	Health security financing, evaluations, and planning should prioritize functional capability and regular exercises.
	77% do not demonstrate a capability to collect ongoing or real-time laboratory data	
	24% show evidence of a nationwide specimen transport system	
	89% do not demonstrate a system for dispensing medical countermeasures during a public health emergency	
	• 19% demonstrate at least one trained field epidemiologist per 200,000 people	

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Most countries have not allocated funding from national budgets to fill identified preparedness gaps.	 5% score in the top tier for financing One country, Liberia, has published a description of specific funding from its national budget for gaps identified in existing assessments and/or national action plans 10% show evidence of senior leaders' commitment to improve local or global health security capacity 	Health security preparedness financing should be tracked by a specific, globally recognized entity and briefed annually to heads of state. Domestic financing for health security should be urgently increased, made transparent, and tied to benchmarks within national action plans. Decision makers should create new health security preparedness financing mechanisms that incentivize measurable improvements, such as a new multilateral global health security matching fund, and expansion of IDA allocations to include preparedness. International leaders should examine the availability of financing to support rapid and complete outbreak response. The UN should track and publish outbreak-related costs and contributions.
More than half of countries face major political and security risks that could undermine national capability to counter biological threats.	 Higher overall score: Countries with effective governance and political systems 55% score in the bottom and middle tiers for political and security risks indicators 15% score in the highest tier for public confidence in government 23% score in the top tier for political system and government effectiveness, representing approximately 14% of the global population 	Plans should be developed to assist countries with challenging risk environments and to bolster preparedness in countries bordering those at increased risk. National governments and donors should assess political and security risk factors when making resources available to support capacity development. The UN Security Council should urgently convene a series of meetings aimed at the development of rapid response capabilities, strategies, workforce, and protections necessary for outbreaks that originate in or spread to countries with high political or security risks.
Most countries lack foundational health systems capacities vital for epidemic and pandemic response.	 Lowest scoring category: for health systems, average score of 26.4; 131 countries in the bottom tier; weaknesses among even high-income countries 27% demonstrate the existence of an updated health workforce strategy 3% show a public commitment to prioritizing healthcare services for healthcare workers who become sick as a result of participating in a public health response Low scores: physician and nurse/midwife density per 100,000 population 11% show plans to dispense medical countermeasures during health emergencies 	Decision makers should measure and take into account health system capabilities as an integral part of all health security planning, investments, and financing strategies. Leaders should take steps to build and maintain robust healthcare and public health workforces that play a major role in biological crises. National Action Plans for Health Security (NAPHS) should take into account specific benchmarks to improve and finance the overall health system and its workforce.
Coordination and training are inadequate among veterinary, wildlife, and public health professionals and policymakers.	 30% demonstrate existence of mechanisms for sharing data among relevant ministries for human, animal, and wildlife surveillance 8% demonstrate a cross-ministerial unit dedicated to zoonotic disease 51% offer field epidemiological training programs that explicitly include animal health professionals 62% have not submitted a report to the World Organisation for Animal Health on the incidence of human cases of zoonotic diseases for the past calendar year 	National public and animal health authorities should coordinate during the development of NAPHS and should incorporate a One Health approach as part of pandemic planning and national disaster preparedness and response efforts. Countries should identify an agency and grant it authority to coordinate training and information sharing among human, animal, and environmental health professionals for outbreak preparedness and response. Decision makers should consider infectious disease risks when developing policies and plans related to climate change, land use, and urban planning.
Improving country compliance with international health and security norms is essential.	 <50% have submitted Confidence-Building Measures for the Biological Weapons Convention (BWC) in the past three years 30% score well for UN Security Council Resolution (UNSCR) 1540 implementation measures related to legal frameworks and enforcement for countering biological weapons 5% have in place a publicly available plan or policy for sharing genetic data, clinical specimens, and/or isolated biological materials that extends beyond influenza 31% do not show evidence of a cross-border agreement on public health emergency response 45% have conducted and published a WHO Joint External Evaluation (JEE) or precursor evaluation 	Countries should regularly undergo and publish a WHO JEE to increase transparency around global health security capacities and capabilities. Countries should establish national and regional protocols for rapidly sharing genetic materials and specimens during public health emergencies. National health authorities should develop epidemic- and pandemic-specific preparedness and response strategies as part of routine disaster and broader national security planning efforts.

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