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Creating Resilient Communities through Disaster Risk Reduction and Climate Change Mitigation and Adaptation

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Introduction: Climate change and disaster risks pose significant threats to sustainable development, human health, and poverty reduction. It is essential to integrate these risks into development planning and budgeting to build resilient communities. Environmental health plays a crucial role in addressing these risks before, during, and after disasters. Disaster Risk Reduction initiatives, including climate change mitigation and adaptation, are vital for creating resilient communities, guided by the UN Sendai Framework for Disaster Risk Reduction.

Background: Climate change is expected to increase the frequency and intensity of disasters such as cyclones, droughts, floods, heatwaves, infectious diseases, sea-level rise, and wildfires. Acting now to mitigate these risks and build resilient communities is imperative. Environmental health profession/als focus on interventions like infectious disease outbreaks, air and water pollution, food safety, waterborne diseases, and wastewater management. Disaster Risk Reduction is essential for achieving sustainable development goals amidst changing climatic conditions. Factors contributing to climate change include human activity, changes in land use, habitat loss, and pollution of air, water, and soil. The consequences of climate change on the natural environment include shifts in climate zones, global warming, extreme weather events, flooding, glacier melt, and sea -level rise. Climate change poses threats to nature, human health, and the economy, impacting water quality, agriculture, biodiversity, and infrastructure.

Strategy: Building resilience and sustainability in communities through disaster risk reduction and climate change adaptation involves integrated planning, reducing fossil fuel use, and promoting coordination among stakeholders. Environmental health profession/als play a crucial role in disaster preparedness, community engagement, and education to address the impacts of climate change and enhance resilience. Prioritizing environmental health is essential for aligning local actions with global goals (Think Globally, Act Locally). Research indicates that human activities have a significant impact on the environment, leading to climate change. Extreme weather events resulting from these changes can cause natural disasters, depending on the level of exposure and vulnerability. The UN advocates for a proactive approach to disaster management, focusing on risk analysis and policy development. It is essential to empower environmental health practitioners and industry in disaster management and climate change adaptation to create a more resilient community. Collaboration at all levels is crucial, but top-down approaches may not always address local factors effectively. Involving environmental health profession/als at the local level is vital for successful disaster risk reduction and climate change adaptation, especially in decentralized implementation. Their local knowledge and resources are valuable assets. Despite its extensive history, the field of environmental health is often underutilized and undervalued.

Community's role and unknown known: The role of the community and the importance of community-based experts collaborating with environmental health officers are crucial in providing insights into health behaviors and enhancing disaster management and climate change adaptation strategies. This collaborative approach empowers communities and environmental professionals to work together towards creating resilient communities through Disaster Risk Reduction and Climate Change Mitigation and Adaptation. While the existence of environmental health profession/als is recognized, their full potential has not been fully utilized. For instance, current efforts are focused on the increased risk of H5N1 infection in Australia during the upcoming spring and summer seasons, primarily through transmission by migratory birds. Effective coordination is essential, with centralized planning and decentralized execution involving Local Government (LG) Environmental Health Officers (EHOs). Clear and consistent communication, drawing on lessons from the COVID-19 pandemic, is crucial to avoid confusion. Roles and responsibilities should be clearly defined, with a lead agency appointed for messaging and disseminating information across government agencies, stakeholders, and communities. Alignment among parallel service providers and stakeholders is necessary to address transmission to workers and frontline personnel, as well as mental health impacts. Discrepancies in support for LGs compared to other service providers, such as general practitioners (GPs) and pharmacies, need to be addressed to ensure the sustainability and effectiveness of services. Bridging these gaps will promote equal participation from all stakeholders in an equitable manner while enhancing resilience. Engaging various agencies and stakeholders, including Food Standards Australia New Zealand (FSANZ), Departments of Health (DOHs), Public Health Units (PHUs),

and Local Government Associations, is crucial to mitigate risks and protect public health. Exploring the impact on the food chain in the event of virus transmission is essential to safeguard food safety and public health.

Recommendations: After recovery, the three tiers of government should engage with their workforce and the community, particularly the LGs, to assess successes and areas for improvement. This feedback will help gather insights, ideas, and lessons learned, fostering mutual understanding and cooperation while enhancing resilience. Sharing these experiences nationally and globally can prevent redundant efforts. Local governments (LGs) need to understand the risks and vulnerabilities of their populations to effectively map and identify disaster risks. Collaboration, knowledge-sharing, and resource allocation are essential for breaking down silos and working together. Key bodies and agencies should create platforms for policy makers and professionals to collaborate, advocate for resources, and influence policy decisions. Building resilient communities through disaster risk reduction and climate change adaptation requires a multifaceted approach involving stakeholders, education, infrastructure investment, and sustainable practices. Prioritizing food safety post-disaster can help communities not only recover but also thrive in the face of future challenges.

In **conclusion** building resilient communities involves implementing strategies that prioritise disaster risk reduction, climate change mitigation, and adaptation. These strategies aim to strengthen communities' ability to withstand and recover from natural disasters and climate change impacts. Key components of resilience building include enhancing infrastructure, improving early warning systems, promoting sustainable land use, enhancing community preparedness and response, and fostering collaboration among stakeholders. Integrating disaster risk reduction and climate change adaptation into community planning and development can enhance resilience and readiness to address environmental hazards and climate variability. Governments at all levels should engage with their workforce and communities' post-recovery to gather feedback and enhance resilience. Sharing experiences and lessons learned nationally and globally can help avoid duplication of efforts. Collaboration, investment in education and infrastructure, and sustainable practices are essential for building resilient communities through disaster risk reduction and climate change adaptation. Prioritising food safety post-disaster can help communities recover and thrive in the face of future challenges.

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