NATURAL HAZARDS CENTER

University of Colorado Boulder

RESEARCH BRIEF SERIES

MITIGATION MATTERS

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AWARD AMOUNT:
$2,500

FEMA defines mitigation as the effort to reduce loss of life and property by lessening the impact of disasters. Effective mitigation requires that we all understand local risks and invest in long-term planning to reduce risks and enhance community well-being.

DISASTER RISK COMMUNICATION AND DIGITAL VULNERABILITY AMONG SUBSIDIZED HOUSING RESIDENTS

SUMMARY

Emergency responders frequently use digital media—including websites, online news articles, and social media posts—to communicate risk information with the public. However, some groups, especially those with lower digital literacy levels, may be unable to receive this information. As a result, these groups may lack the information channels they need to prepare for and respond to disasters.

This research surveyed 200 subsidized housing residents living in flood-prone areas to investigate the relationship between their digital and social media skills, their information channels for risk communication, and mitigation behaviors. Most of the survey respondents had low incomes and other socio-economic characteristics that make them vulnerable to adverse disaster outcomes.

Our analysis showed the crucial role that social media plays in disseminating disaster risk information and promoting mitigation actions. Practitioners should be mindful of the digital divide when using digital tools for risk communication, as many residents in subsidized housing may have difficulty accessing digital information. To address this issue, it is recommended to provide digital literacy training and targeted communication campaigns to ensure effective risk communication in vulnerable communities.

KEY FINDINGS

- Non-white or elderly respondents (over 58 years old) exhibit lower levels of digital literacy. Additionally, unemployed or elderly respondents (over 58 years old) tend to use social media platforms less.
- Subsidized housing residents with higher levels of digital literacy and flood risk awareness are more likely to follow the social media accounts of public health and emergency officials. Additionally, they also take more proactive measures to prepare for disasters, such as purchasing insurance and stocking emergency supplies, compared to those with lower digital literacy levels.

POLICY IMPLICATIONS

- Local practitioners should be mindful of the potential for unequal usage of digital tools among vulnerable residents when disseminating risk information.
- Community leaders may consider strategies, such as providing digital literacy training and launching targeted communication initiatives, to ensure the effectiveness of risk communication in vulnerable communities.

STAKEHOLDERS

This work may be of interest to local emergency managers, community leaders, and scholars who specialize in data-driven approaches and digital governance.

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