

Health System Resilience Capacity in Federal Context of Nepal: Findings from a Mixed Method Study

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Background

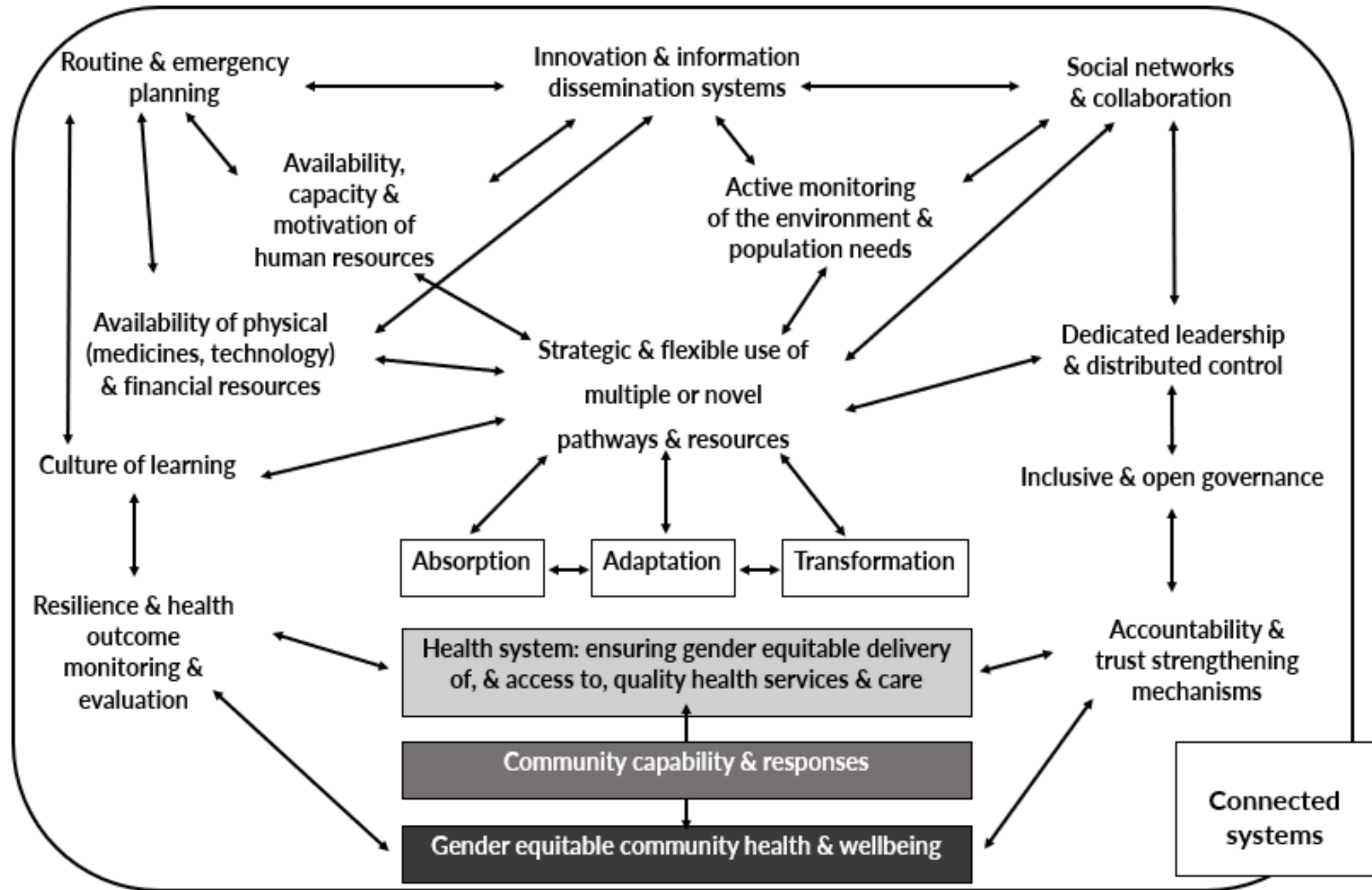
Health system can be strong in stable condition but susceptible to shocks

Health system can be under-performing in normal circumstances but show resilience during shocks

Strong health system is necessary condition for proper functioning of health condition but not sufficient

Reference: Witter S, Thomas S, Topp SM, Barasa E, Chopra M, Cobos D, Blanchet K, Teddy G, Atun R, Ager A. Health system resilience: a critical review and reconceptualisation. *The Lancet Global Health*. 2023 Sep 1;11(9):e1454-8.

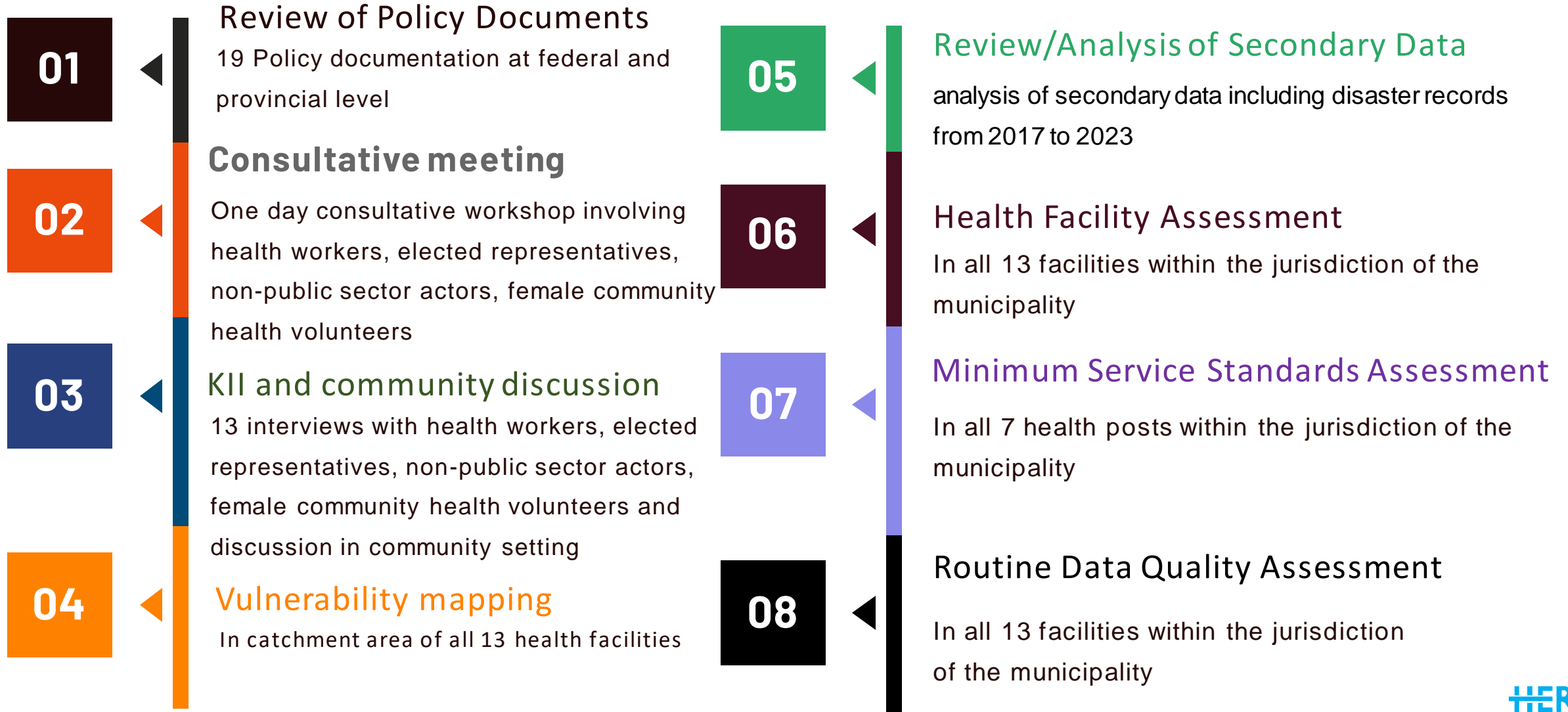
Resilience framework



Objectives

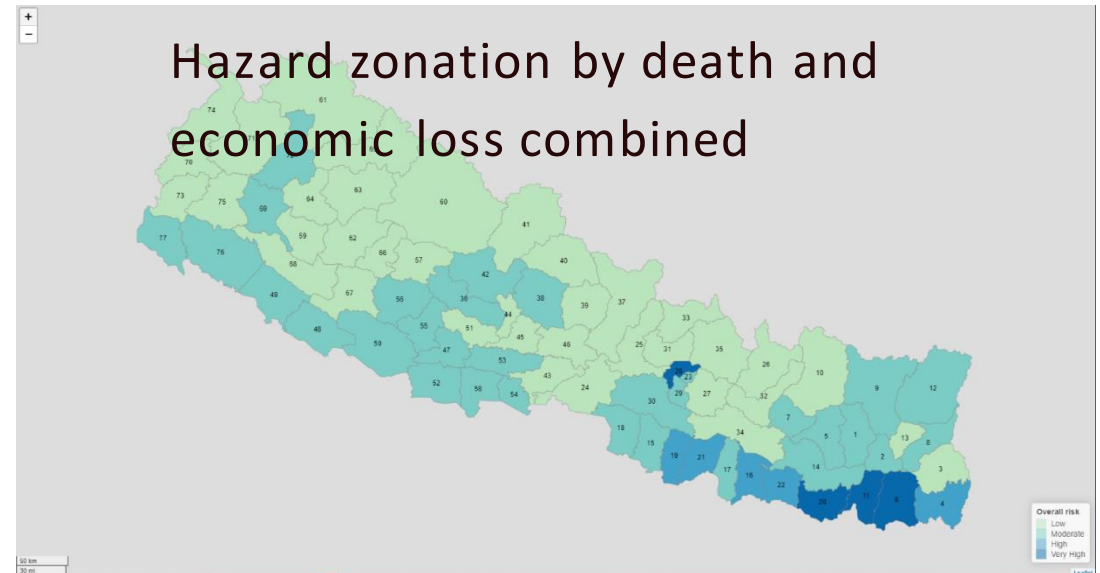
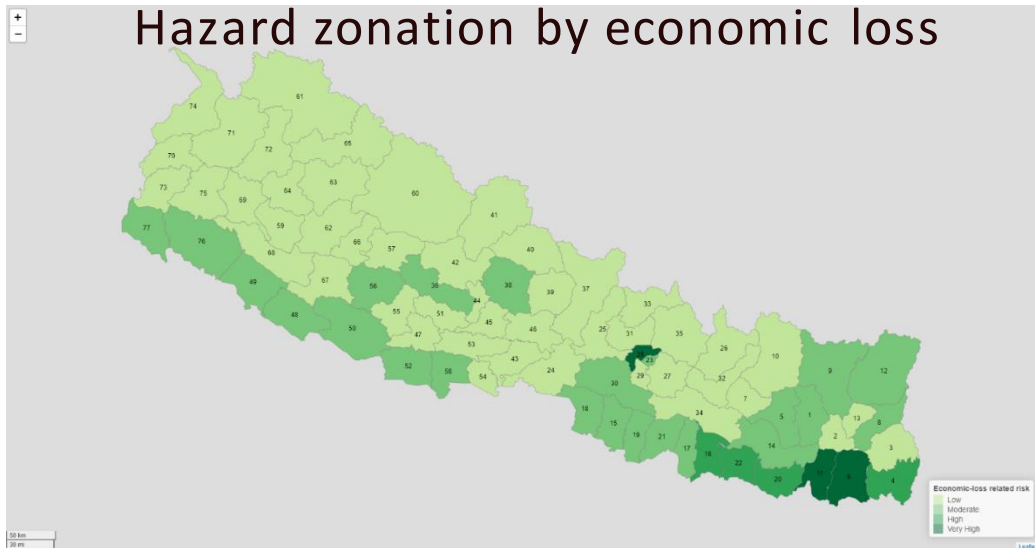
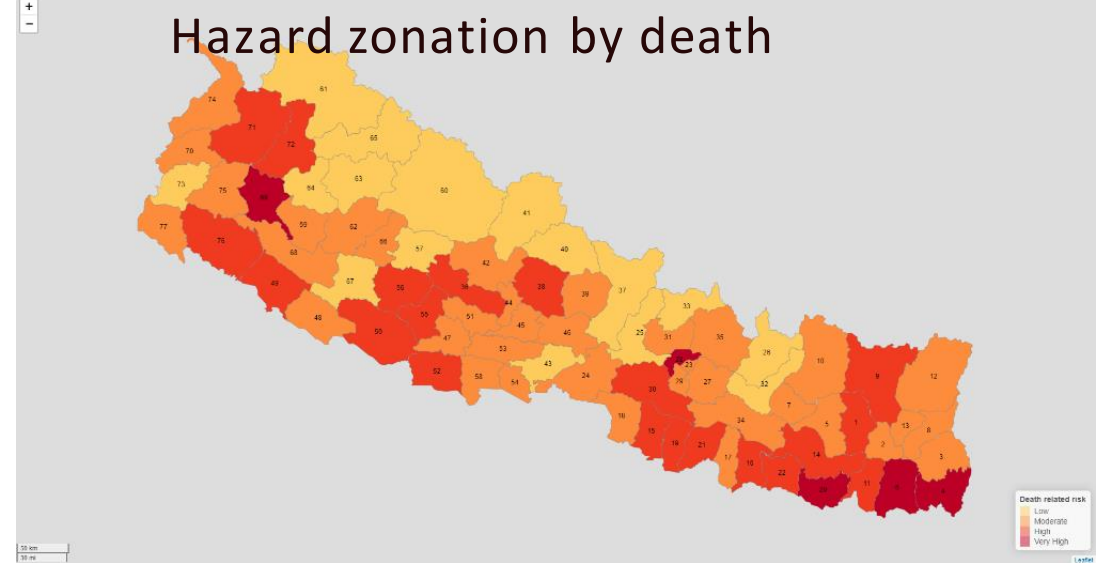
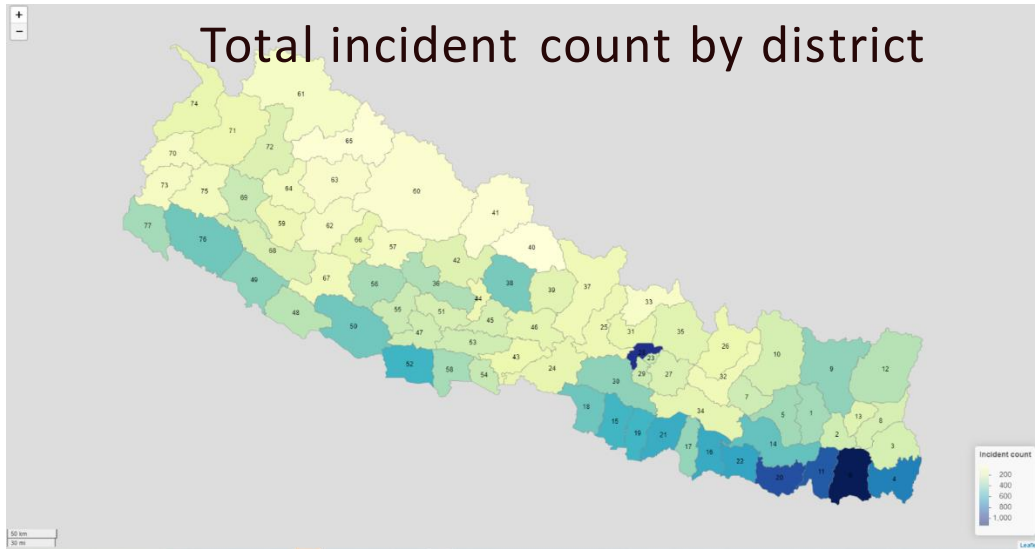
Map the resilience capacity of local health system

Methods



Results

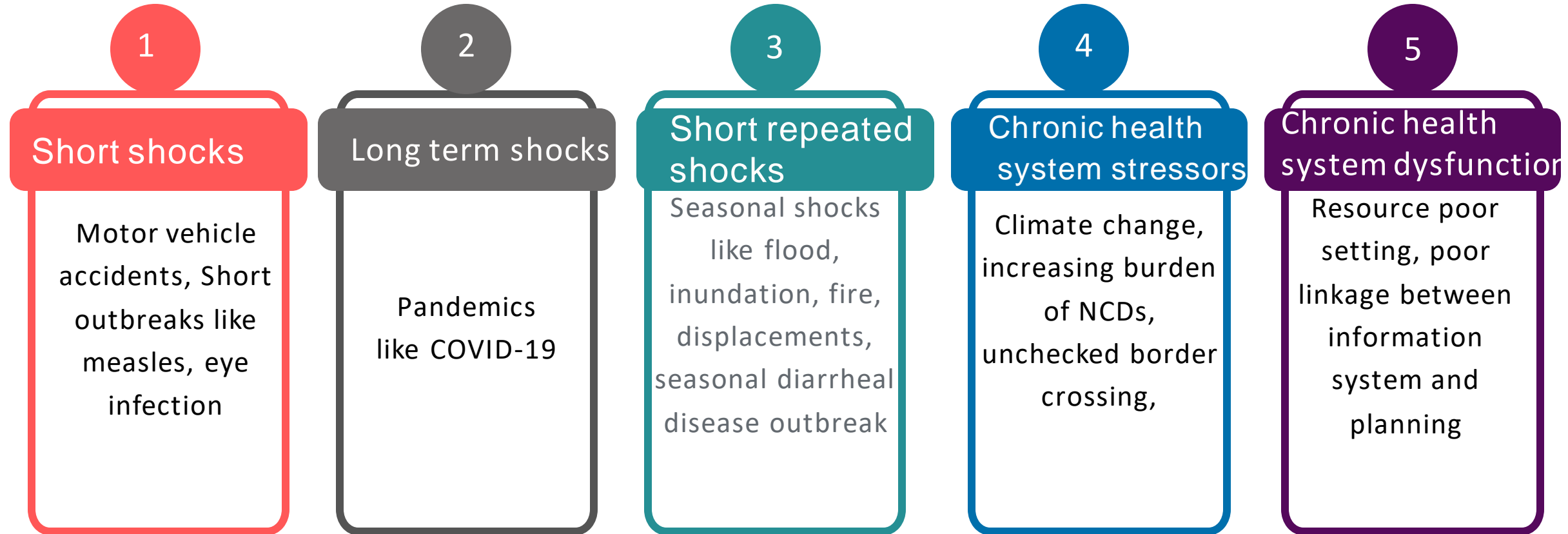
Hazard zonation



Hazard risk by districts

Hazard level	Hazard based on economic loss	Hazard based mortality	Overall
Very low	0	0	0
Low	47 (61.0)	16 (20.8)	37 (48.1)
Moderate	23 (29.9)	36 (46.7)	31 (40.3)
High	4 (5.2)	20 (26.0)	5 (6.5)
Very high	3 (3.9)	5 (6.5)	4 (5.2)

Common shocks and stressors in learning site



Human resource for health



Availability

- Health Workers not sufficient, for example two health workers catering need of 9,000 populations in BHSC
- 32 out of 45 sanctioned positions are fulfilled, difficulties in recruitment at local level (contract basis)

Capacity

- Challenges in leadership, policy formulation, governance and management and regulatory functions

Motivation

- Staff readjustment process, local health workers have understanding of the local culture and context
- Intrinsic motivation of HW could be an opportunity, not incentives or rewards based on performance evaluation system in place

Vulnerabilities

- Recruitment of health workers as per local need is a challenge
- Municipality has responsibilities for planning, policy formulation, governance, management for which municipality health section lacks capacity

Leadership, management & control

Vulnerability

1 Constitutional power without capacity

Constitutionally, Local governments are very strong, can make law, formulate policy and implement them but the organizational structure does not support this role

2 Linkages between information system and planning

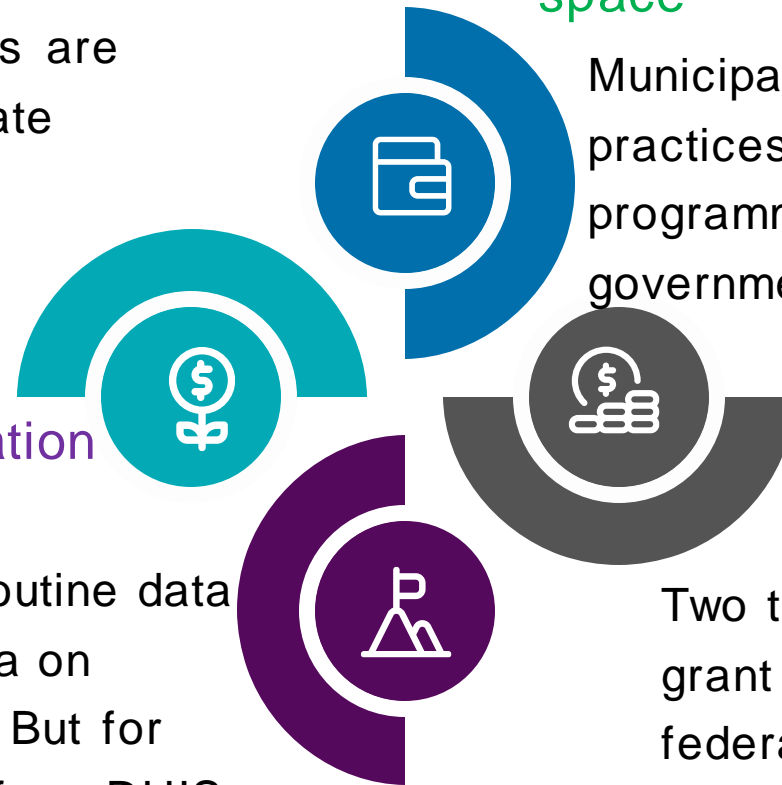
Municipal offices have access to routine data from health facilities that gives idea on health problems of the community. But for the indicators that can be tracked from DHIS 2, federal government prepares the programme details.

3 Planning role with limited decision space

Municipal offices have planning roles. But in practices they are overwhelmed by the programme implementation details by federal governments

4 Financing role without fiscal flexibility

Two third of budget goes as conditional grant which has to be spend as detailed by federal government
Can generate local revenue but very limited



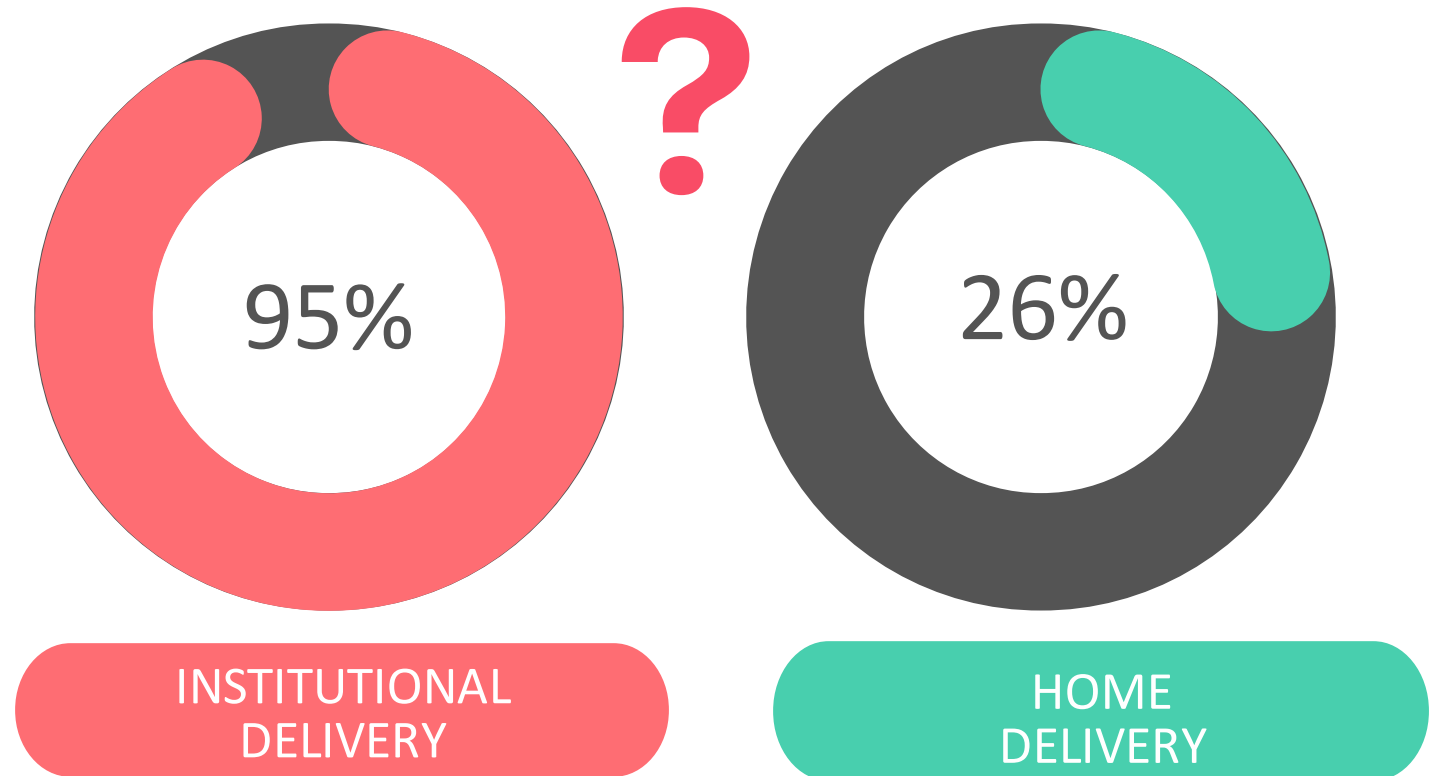
Emergency planning

- Disaster Management Committee is formed at district level.
- Municipalities rely heavily on Health Offices for emergency planning. Health Office in study site, takes the responsibility for planning emergency response in 10 municipalities.
- Lack of mechanism to ensure participation of community people during emergency planning although seven steps planning process envisions it in routine planning process

Information and information dissemination system

- Decision based on low quality data can be dangerous than evidence not based on low quality data
- The municipality data for 2019/2020 show Institutional delivery rate of 95% and home delivery rate of 26%

PLACE OF DELIVERY IN LEARNING SITE AS PRESENTED IN ANNUAL REVIEW



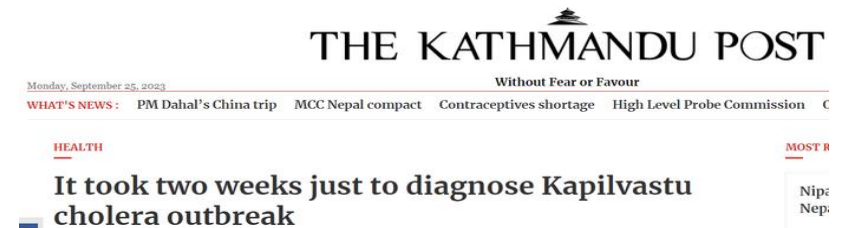
Monitoring of environmental and population needs

Routine information system does not track disease outbreak in the municipality in time as the data is reported on monthly basis

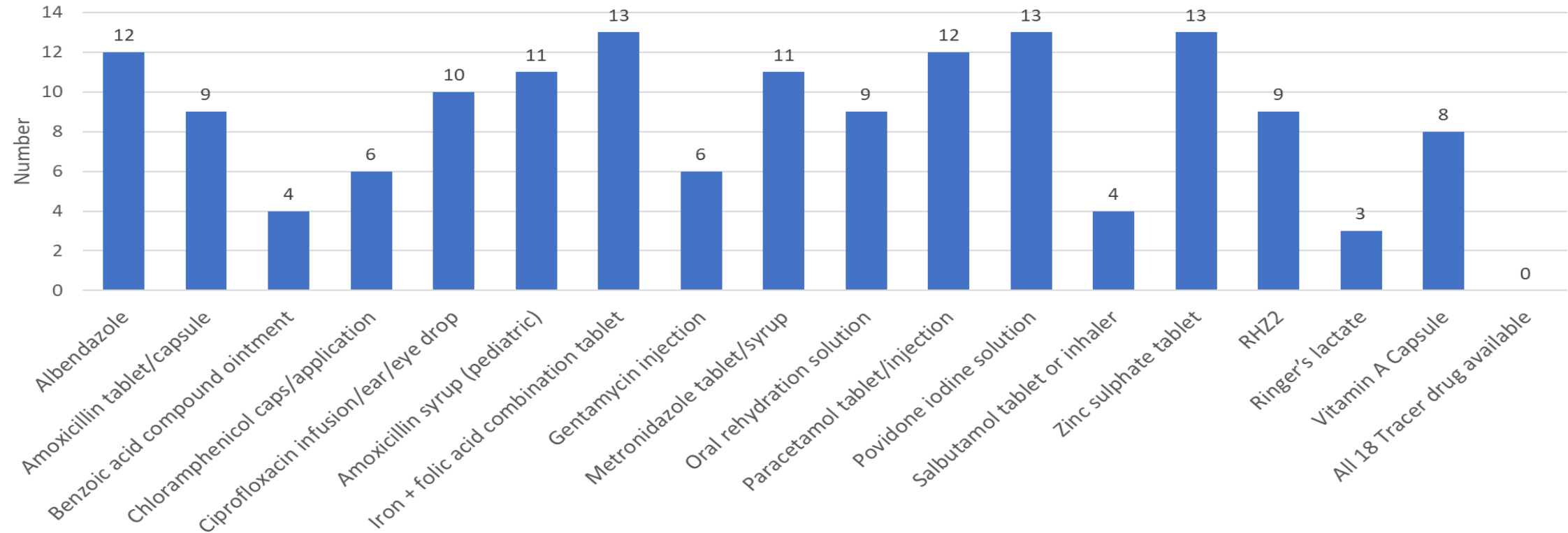
- Informal surveillance system to track disease outbreak at community level
- If community people encounter symptoms of certain disease, information reaches to health facility through FCHVs and to the municipality through health facility in charge. However formal mechanism is lacking.
- Lack of laboratory services makes the diagnosis process difficult

Vulnerability

- Lack of mechanism for monitoring of the changing population, environment and health needs
- Surveillance of specific disease is based on Ad-hoc decisions



Availability of Medicines



- None of the facilities had all 18 tracer medicines available
- Supply of medicines with limited expiry period (4/5 months noted during observation) was another issue

Vulnerability

Limited availability of medicines and near expiry medicine was a challenge in learning site. There are challenges related to quality check and assurance while procuring medicines at local level.

Coordination and collaboration

There is lack of vertical coordination among three tiers of governments:
Federal, Provincial, and Local

An example during COVID-19 pandemic:



The Municipality Supported 10 Million budget for setting up oxygen plant in Hospital



Lumbini Province could not provide doctors in the hospital, lab service was nonfunctional and inpatient service was disrupted



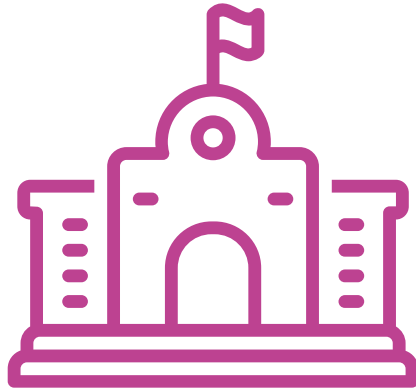
People had to travel to Rupandehi District (50 KM) for the diagnosis and treatment service

Vulnerability

Interventions in local health system can not make the local health system resilience.

Resilience is multisectoral

Health sector alone cannot be resilient without consideration of other sectors like transport, water supply, education, interventions in health sector alone can not develop resilient local health system



Municipal office decided to use schools for quarantine during COVID-19 pandemic



Schools did not have toilet and people had go out frequently



Quarantine Programme was not effective and disease spread rapidly

During development of infrastructures other than health sectors, health considerations might be needed

Conclusion

- There are several areas of improvement in human resource for health, improving accuracy and use of routine information system data, and improving surveillance mechanism at community level
- Some interventions like improving decision space, fiscal flexibility, restructuring the organogram of local health system go beyond the authority of local governments
- Local health system can not be resilient as majority of health system functions are concurrent and interdependent
- Health system alone can not be resilient because of its interdependence on other sectors like infrastructure development (road, water supply system, sewage system), education and environment.

Acknowledgement

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Mr. Shreeman Sharma is a research uptake and science communication practitioner affiliated with HERD International. He holds a master's degree in development management from the Asian Institute of Management in the Philippines, as well as a master's degree in mass communication from Nepal. Shreeman aspires to bridge the gap between evidence and practice. Motivated to contribute to health communication research, he actively engages in research activities and devises effective strategies to communicate scientific evidence to the broader community.