

Public Health Emergency Management: Challenges and Safety

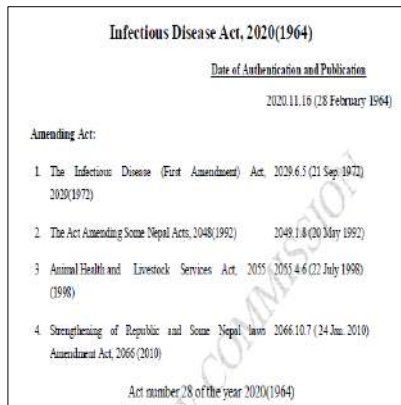
Dr Samir Kumar Adhikari

adhikarispk@gmail.com

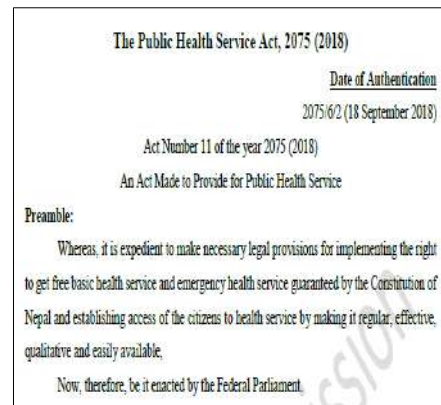
Chief, Health Emergency Operation Center

Ministry of Health and Population

Legal documents for Public Health Emergency Management



Infectious Disease Act (1964)



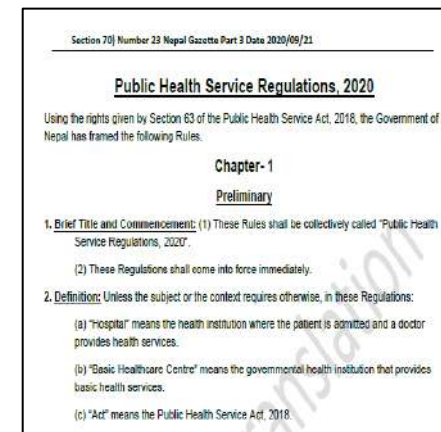
Public Health Service Act (2018)



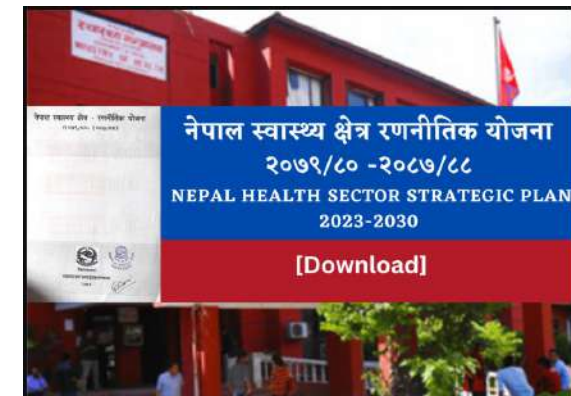
National Health Policy (2019)



One Health Strategy (2019)

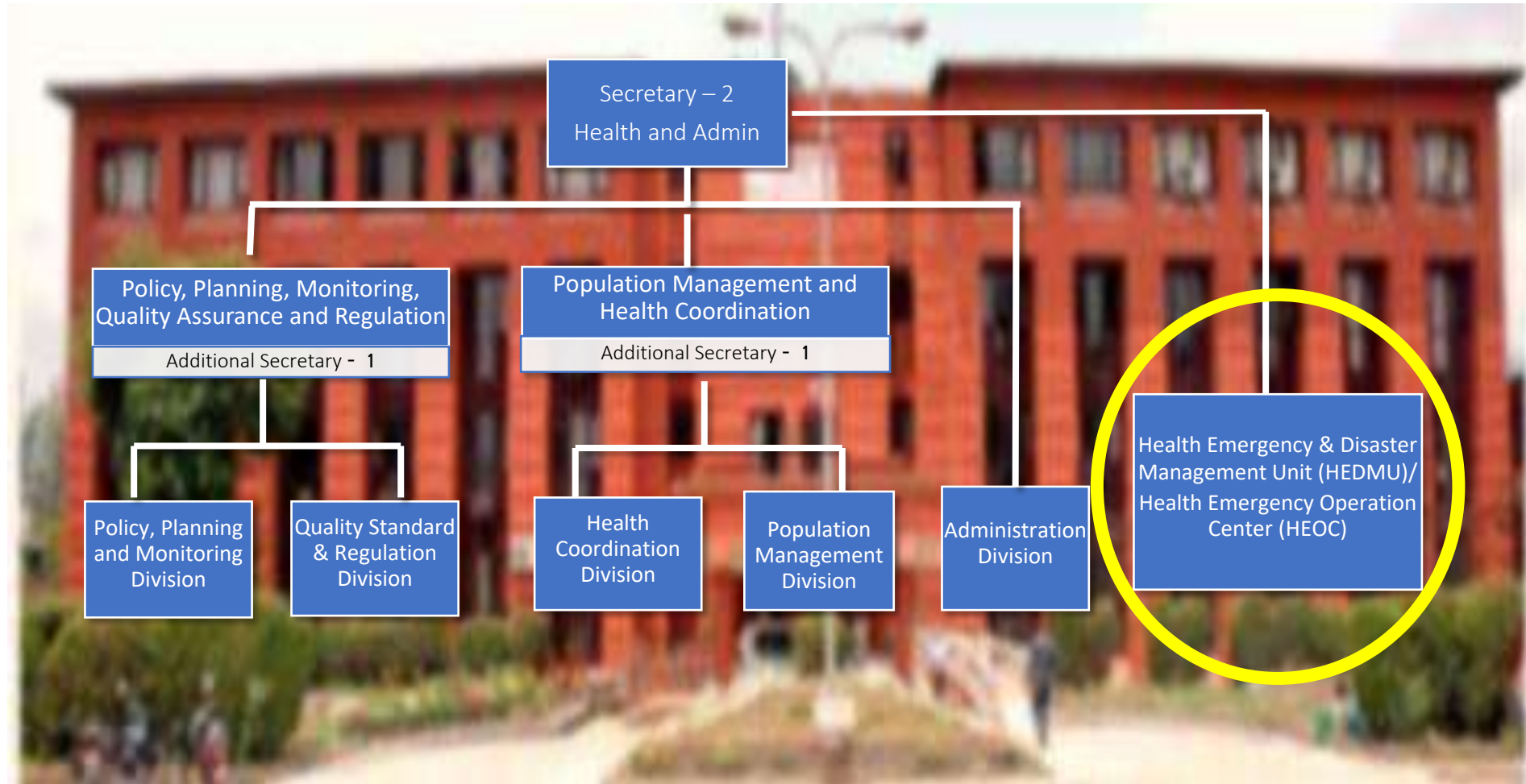


Public Health Service Regulations (2020)

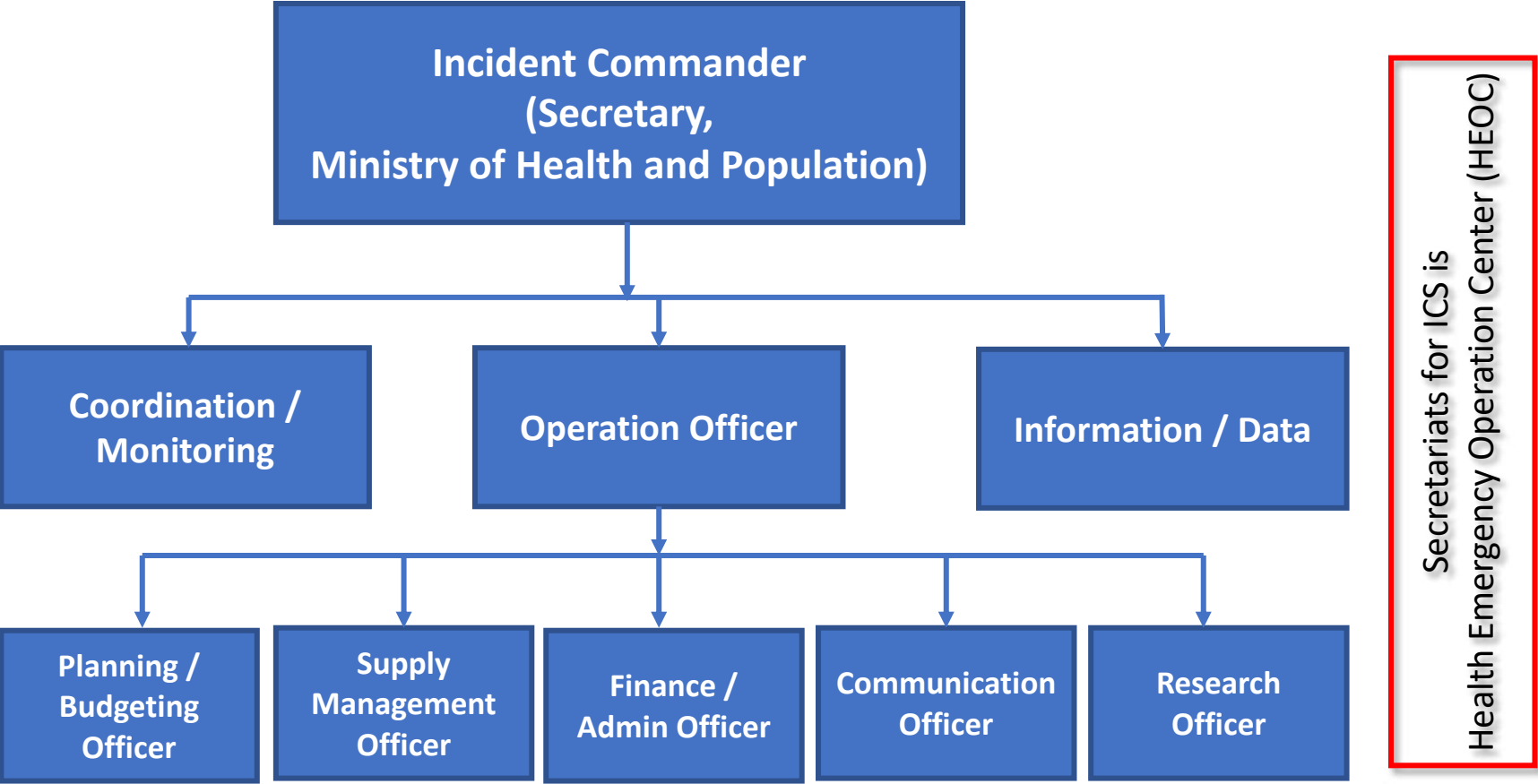


Nepal Health Sector Strategy 2023-2030

Organizational Structure for Public Health Emergency Management



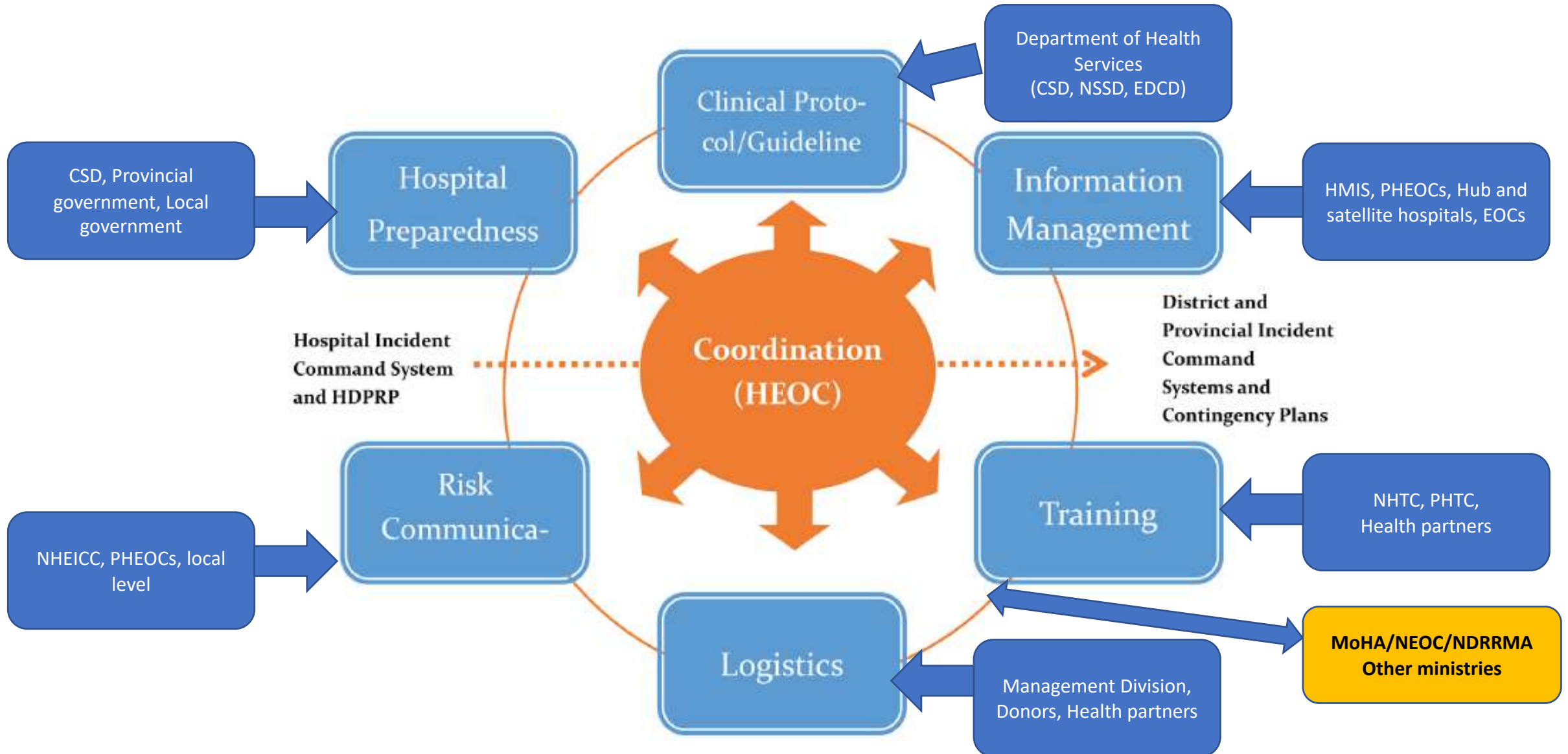
Organizational Structure for Public Health Emergency Management



Organizational Structure for Public Health Emergency Management

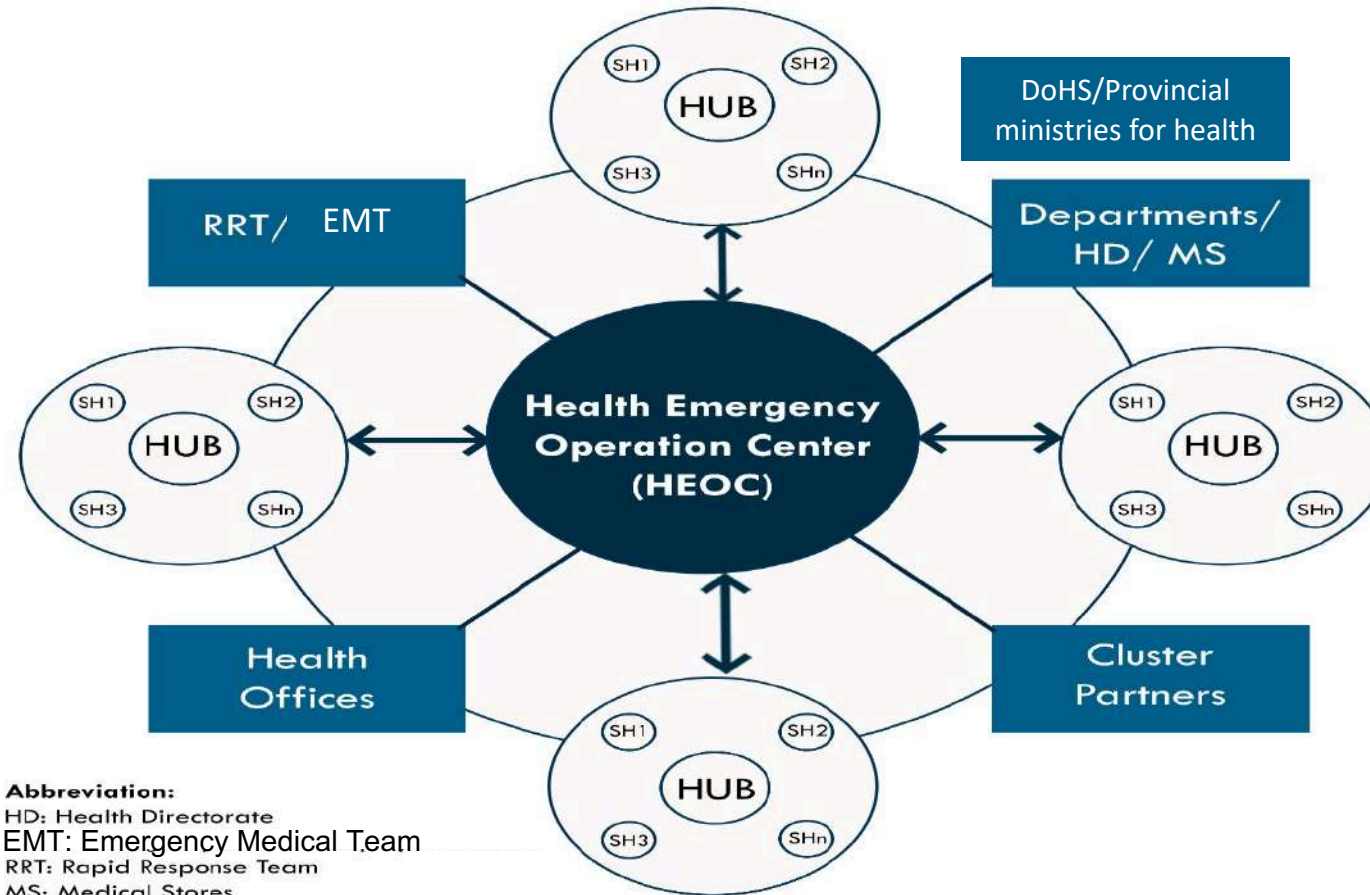


Organizational Structure for Public Health Emergency Management



Organizational Structure for Public Health Emergency Management

Hub and Satellite Hospital Network Concept:



Abbreviation:

HD: Health Directorate
EMT: Emergency Medical Team
RRT: Rapid Response Team
MS: Medical Stores
SH: Satellite Hospitals

Health Sector activities aligning with Disaster Risk Reduction National Strategic plan of Action 2018-2030

Priority Areas	Priority Actions	
1: Understanding Disaster Risk	Hazard-wise Risk Assessment	EWARS, STAR
	Inter-Agency Coordination for Multi-Hazard Risk Assessment	Involvement in multi-hazard platforms
	Development of Effective Disaster Management Information System and Information Dissemination	HEOC-PHEOC-Hub and satellite hospital network, RCCE network, EIOS
	Capacity Building for Understanding Disaster Risk	Workshops, training, exercises
2: Strengthening Disaster Risk Governance at Federal, Provincial and Local Levels	Establishment and Strengthening of Institutional Structures	MoHP-ICS, HEOCs, hub and satellite hospitals
	Formulation of Legal and Regulatory Framework	Acts, Regulations, Guidelines, Strategies, SoPs
	Capacity Development, Collaboration and Partnership for Disaster Risk Governance	Health Coordination Division, Health Cluster Coordination, IHR
	Ensuring Inclusiveness in Disaster Risk Reduction	

Health Sector activities aligning with Disaster Risk Reduction National Strategic plan of Action 2018-2030

Priority Areas	Priority Actions	
3: Promoting Comprehensive Risk-Informed Private and Public Investments in Disaster Risk Reduction for Resilience	Promoting Investment for Building Resilience	Social security, Basic health, Reproductive health, Child health, Adolescents health and nutrition in disaster risk area; health facility assessment; strengthened emergency treatment capacity of hospitals and all health services
	Promoting Public Investment in Disaster Risk Reduction	Utilization of disaster fund for preparedness, anticipatory actions, response; Creating Public Health Emergency Fund
	Promoting Private Investment in Disaster Risk Reduction	Public-private resource mobilization (hub and satellite hospital network); Corporate Social Responsibility
	Increasing Disaster Resilience through Risk Transfer, Insurance and Social Security	Utilization of disaster fund for preparedness, anticipatory actions, response; Creating Public Health Emergency Fund

Priority Area 4: Enhancing Disaster Preparedness for Effective Response and "Build Back Better"

1. Strengthening Disaster Preparedness for Effective Disaster Response
 1. Health Emergency Operation Centers
 2. Hub and satellite hospital network with Hospital Disaster Preparedness and Response Plan
 3. Ambulance, dispatch and Basic Emergency Medical Technician
 4. Rapid Response Team and Emergency Medical Team
 5. Warehouses at ten hub hospitals and buffer stocks at hospitals
2. Developing Multi-Hazard Early Warning System for Disaster Preparedness
 1. EDCD producing and disseminating early warning information by analyzing and forecasting data of major health hazards gathered from 118 Sentinel sites throughout Nepal
 2. Workshops, meeting, training, and mass media on early warning system
 3. Conduction of simulation exercises and reporting and documentation
3. Promotion of Community Based Disaster Risk Reduction
 1. Training to the local level healthcare service providers
 2. Involvement of community people and Community-Based Organizations in disaster related activities
 3. Rapid Response Team and Risk Communication and Community Engagement network up to the local level

Priority Area 4: Enhancing Disaster Preparedness for Effective Response and "Build Back Better"

4. Strengthening Communication and Dissemination System for Disaster Preparedness
 1. Network of HEOCs
 2. Use of social media for information dissemination

5. Capacity Building of Search and Rescue
 1. RRT teams at all levels
 2. Training of community people on first aid and basic life support and healthcare service providers on advanced life support
 3. Ambulance and Basic Emergency Medical Technician

6. Promoting "Build Back Better" Approach in Recovery, Rehabilitation and Reconstruction
 1. Step-down facilities
 2. Health promotion and health education
 3. Reviews and research to identify gaps and address them

Activities of health sector supporting “build back better”

- 1. Epidemiology functions:** Monitoring, detecting, and investigating potential hazards, particularly those that are environmental, radiological, toxic, or infectious
- 2. Laboratory functions:** Maintaining and improving the systems to test for potential hazards, particularly those that are environmental, radiological, toxic, or infectious
- 3. Countermeasures and mitigation strategies:** Developing, testing, and improving community mitigation strategies (e.g., isolation and quarantine, social distancing) and countermeasure distribution strategies when appropriate
- 4. Mass health care:** Developing, testing, and improving the capability to provide mass health care services for disaster through exercises
- 5. Public information and communication:** Developing, practicing, and improving the capability to rapidly provide accurate and credible information to the public in culturally appropriate ways

Experience

- MoHP-ICS activation
- Health cluster activation
- Sample collection and testing
- Surveillance, Quarantine and Isolation
- RCCE
- Guideline development and endorsement
- Hub and satellite hospital network and COVID unified hospitals
- Hospital safety and hospital disaster plans
- Foreign medical teams and Emergency Medical Teams
- Oxygen management
- Vaccination
- Roles and Responsibilities and coordination of all level of government

Learnings

- Coordination challenges (changing context)
- Resource management challenges
(Financial, HR, Logistic, information etc)
- Human resources
(attitude, motivation, work culture, understanding, skills etc)
- Technical issues needs to be seen from same lense
- Team work, shared responsibilities,
- Reactive rather than Proactive
- Whole cycle of disaster is not considered mostly response only



Everybody's responsibility is nobody's responsibility and with out team effort it is impossible

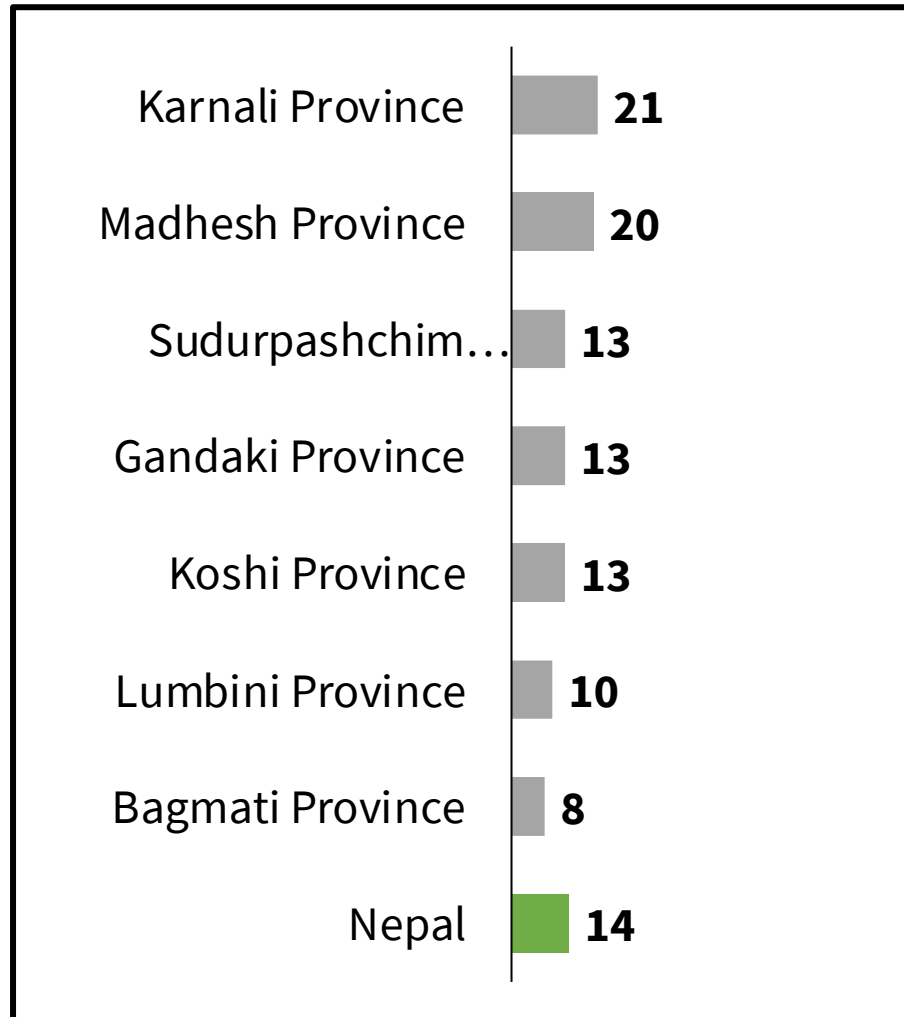
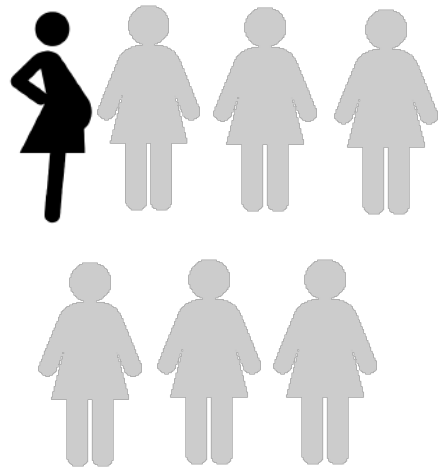
Suggestion

- **Preparedness is key**
- Complete disaster cycle needs to be considered
- Emergency fund for complete disaster preparedness and response.
- Identifying critical resources for public health emergency response and practicing and improving the ability to deliver such resources throughout the supply chain
- Coordinated use of strength of each sector for preparedness and response
- Pool of operations-ready public health and healthcare workforce that has the skills and capabilities to perform optimally in a public health emergency
- Use existing structures in response, built on existing rather than suddenly creating new structures
- **Practicing, reviewing, reporting, and improving** public health emergency preparedness by regularly using real public health events, supplemented with drills and exercises

Teenage Pregnancy

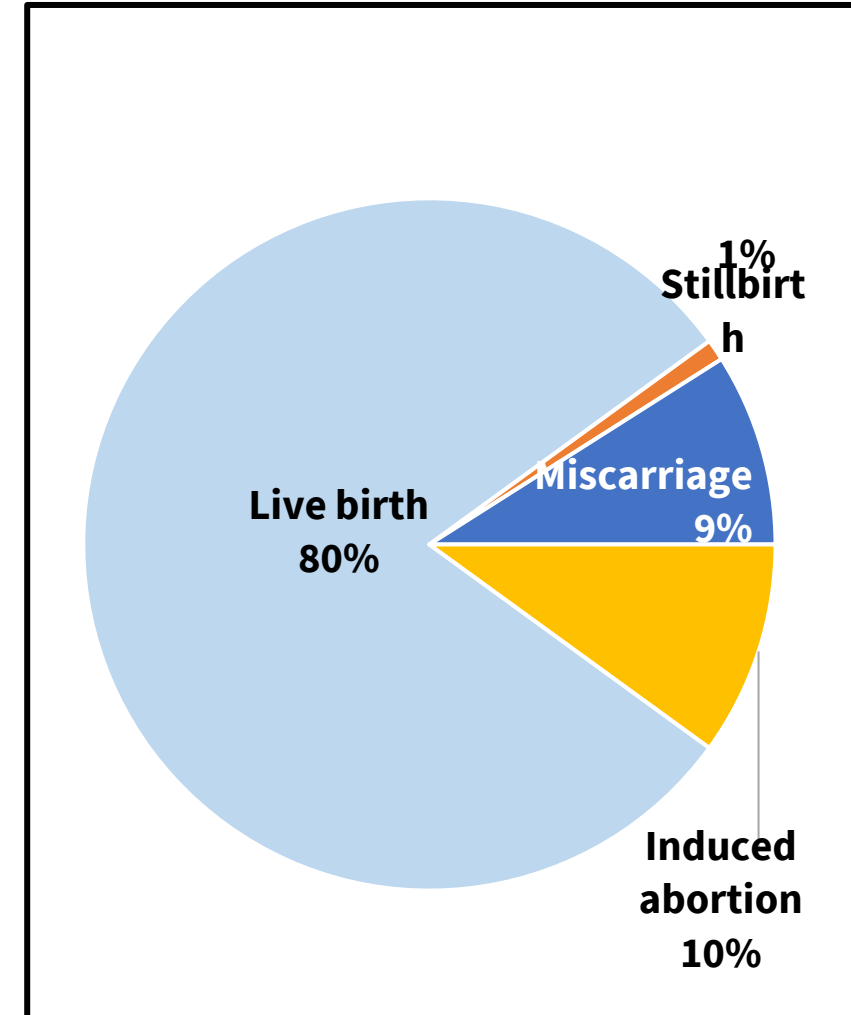
Percent of women age 15-19 who have ever been pregnant by Province

14% of women aged 15-19 have ever had a live birth, pregnancy loss, or are currently pregnant.



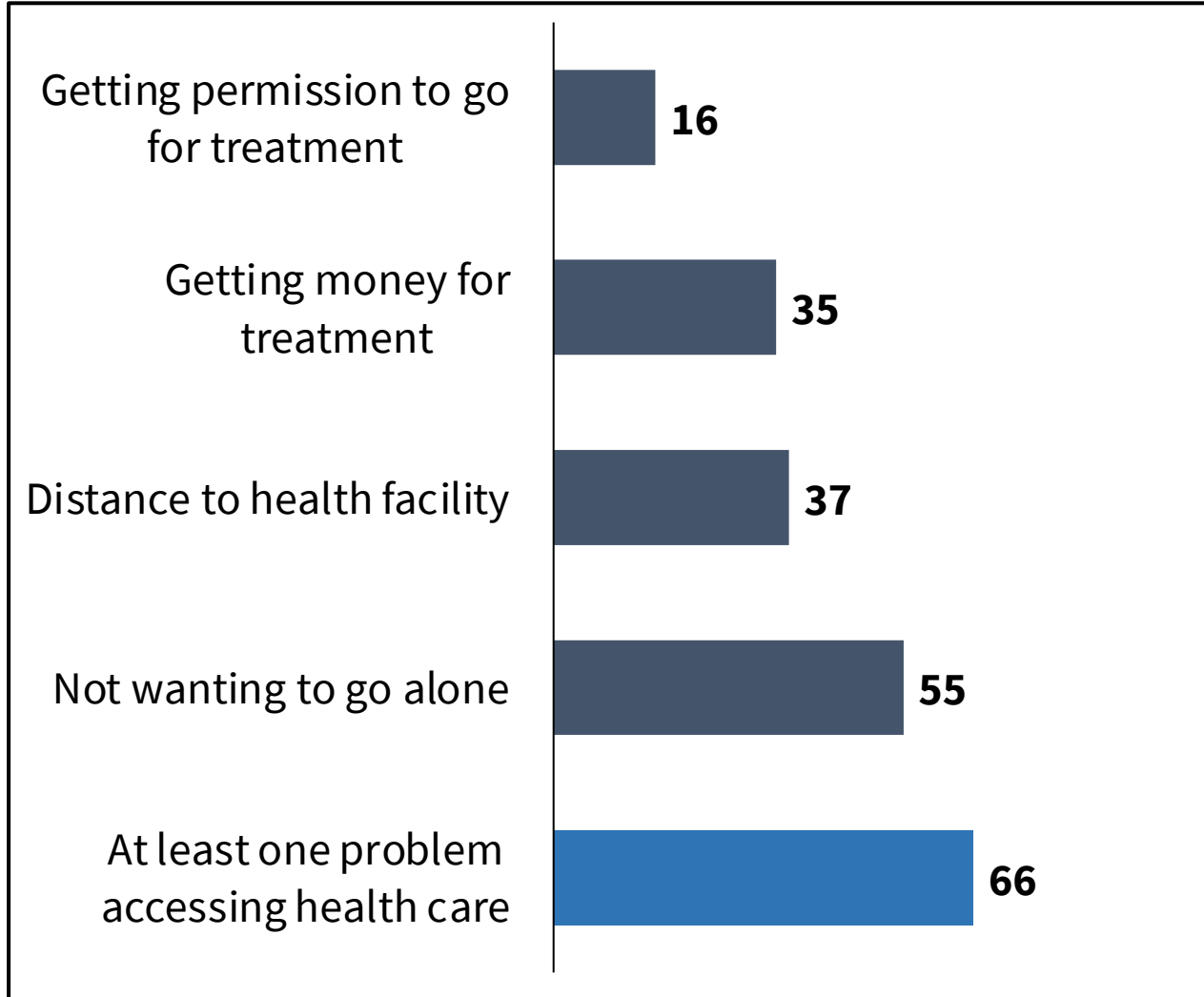
Pregnancy Outcomes

Percent distribution of pregnancies ending in the 3 years preceding the survey



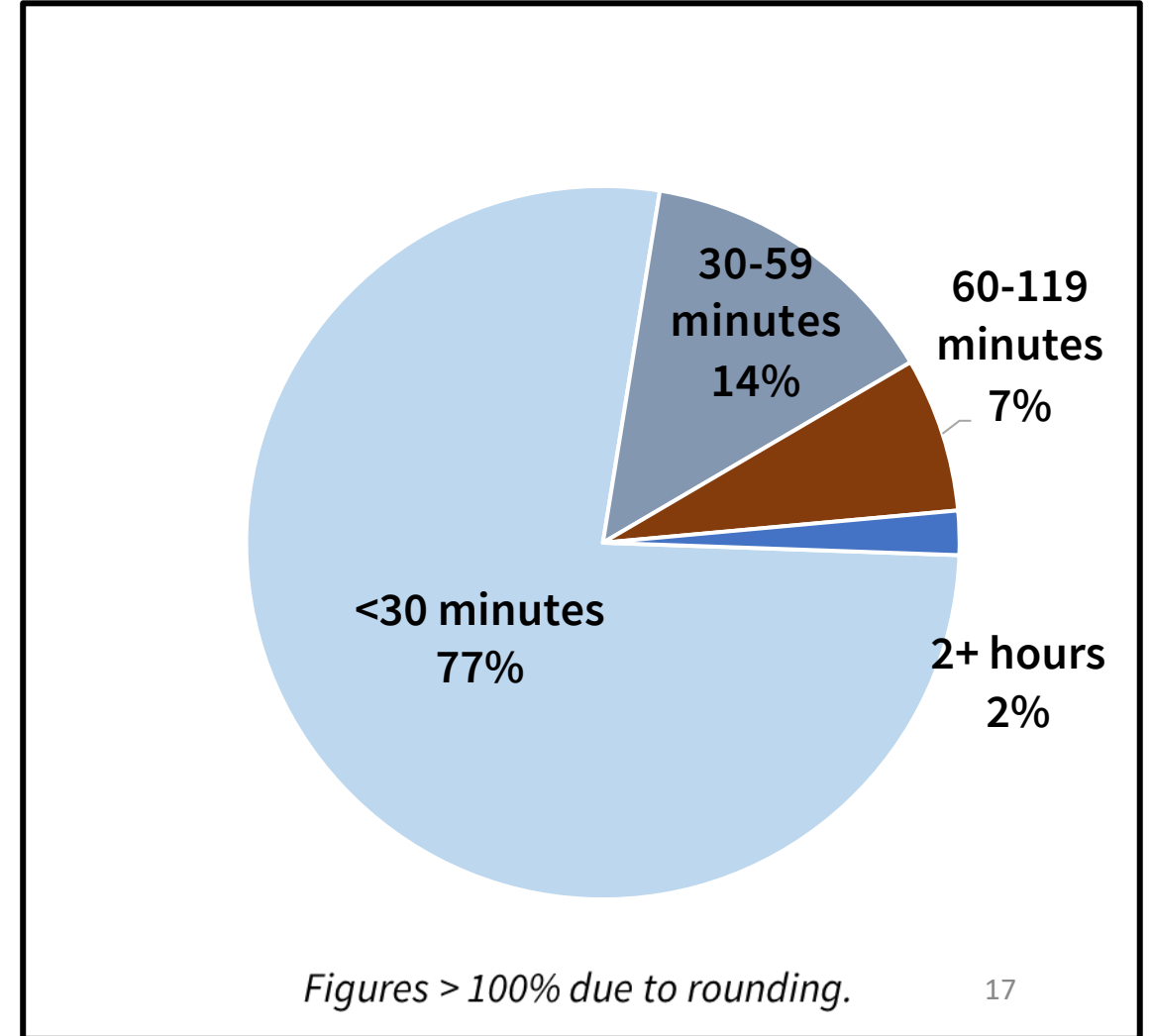
Problems in Accessing Health Care

Percent of women age 15-49 who reported that they have serious problems in accessing health care for themselves when they are sick



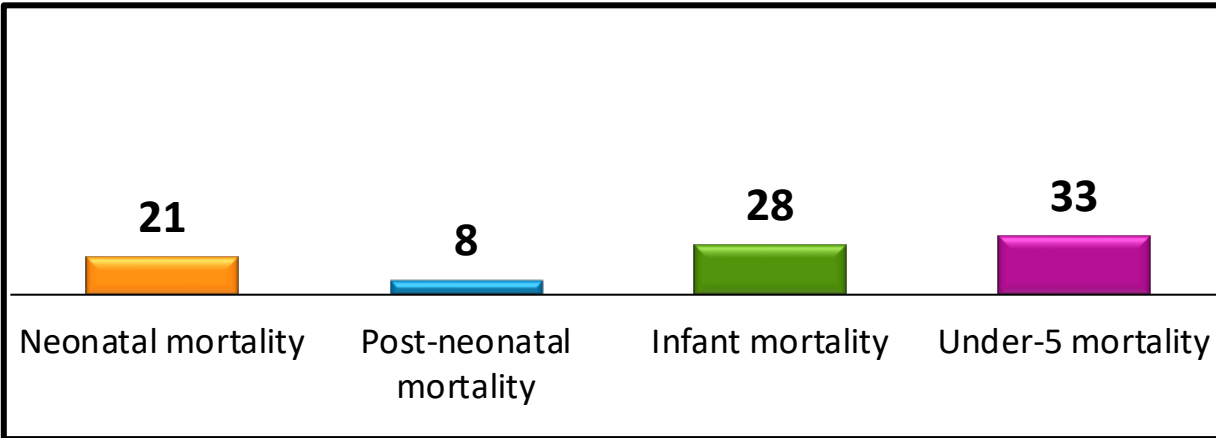
Distance from Health Care Facility

Percent distribution of women age 15-49 by travel time to nearest health facility



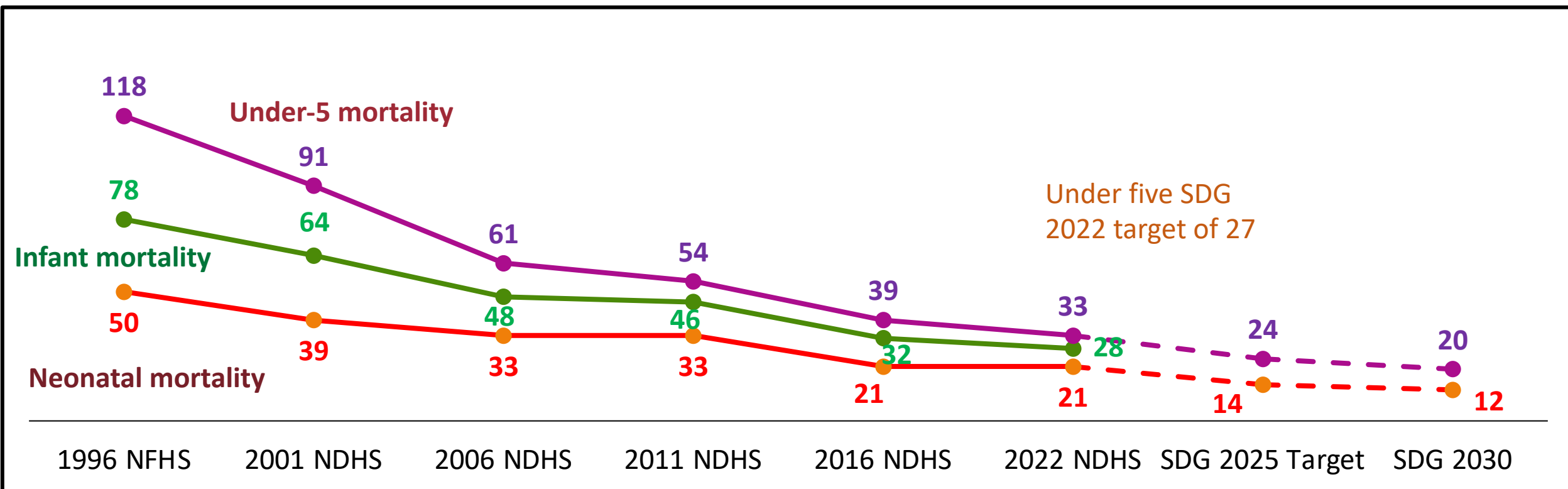
Childhood Mortality Rates 2022

Deaths per 1,000 live births for the 5-year period before the survey



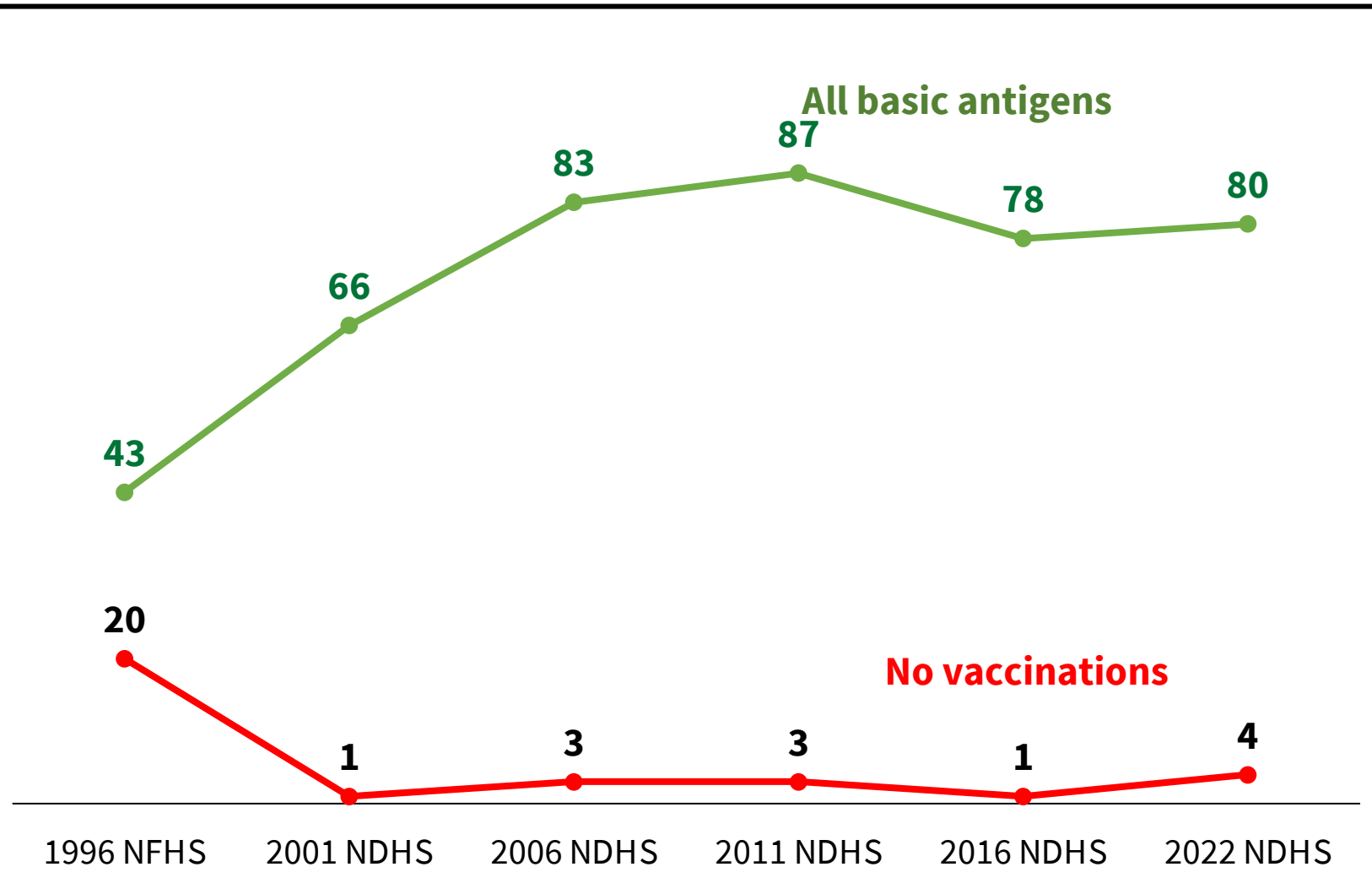
Trends in Childhood Mortality

Deaths per 1,000 live births for the 5-year period before the survey



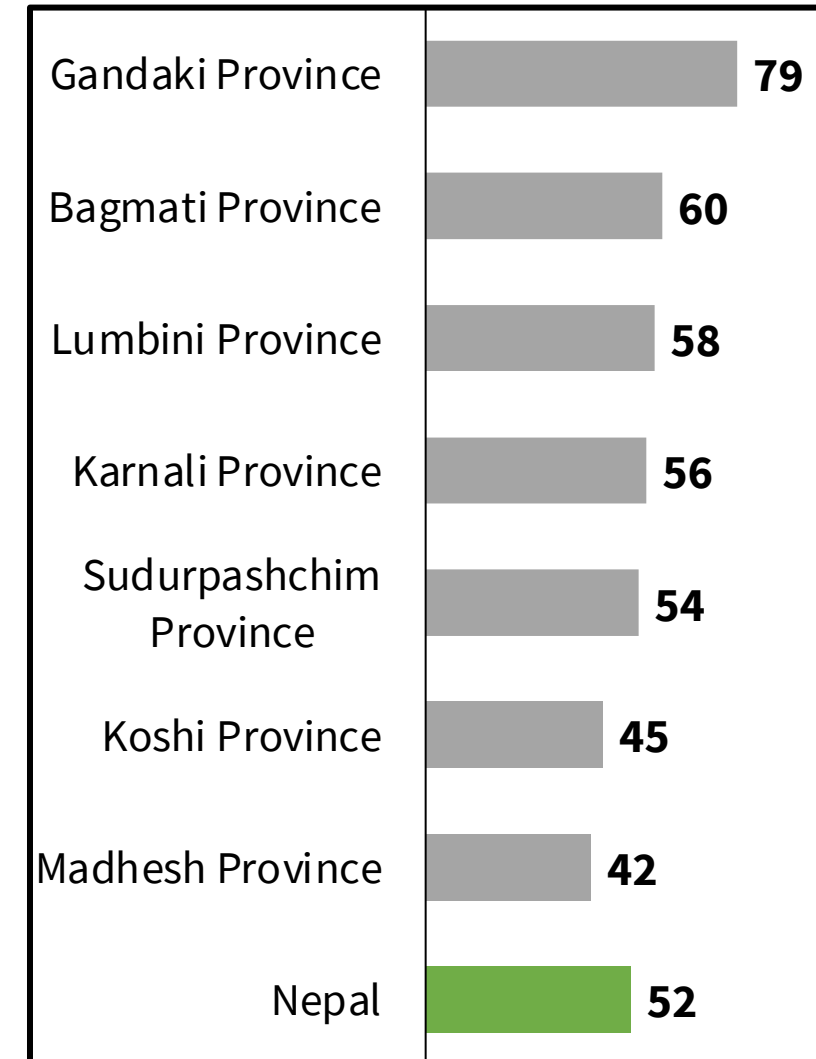
Trends in Childhood Vaccinations

Percent of children age 12-23 months who received



Vaccination Coverage by Province

Percent of children age 12-23 months who are fully vaccinated according to the national schedule at any time before the survey



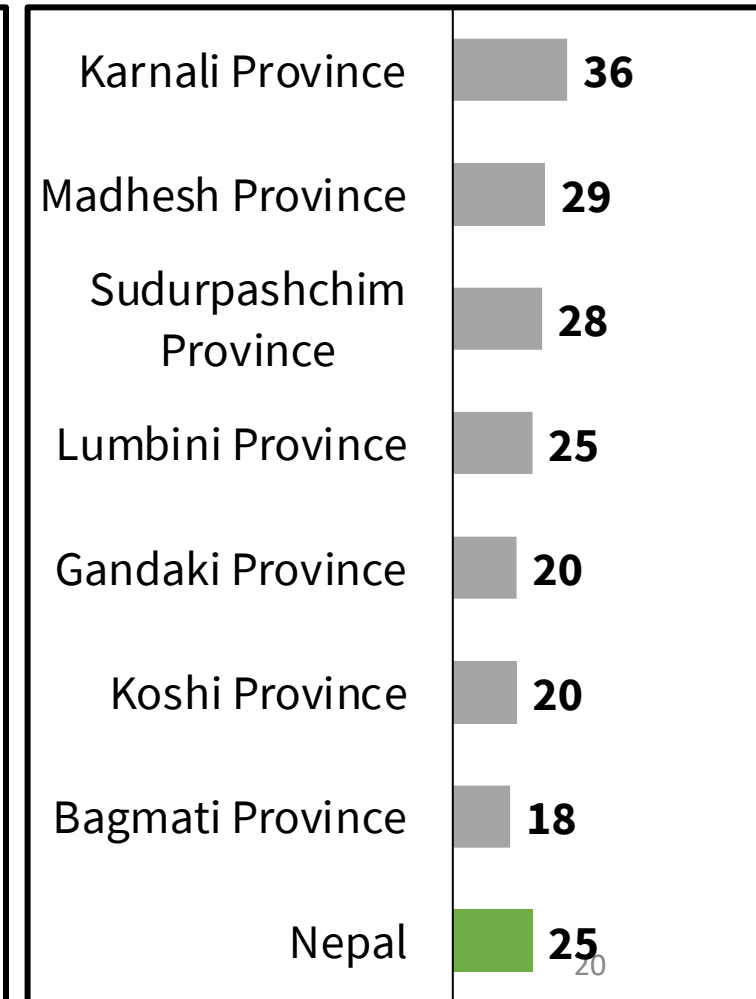
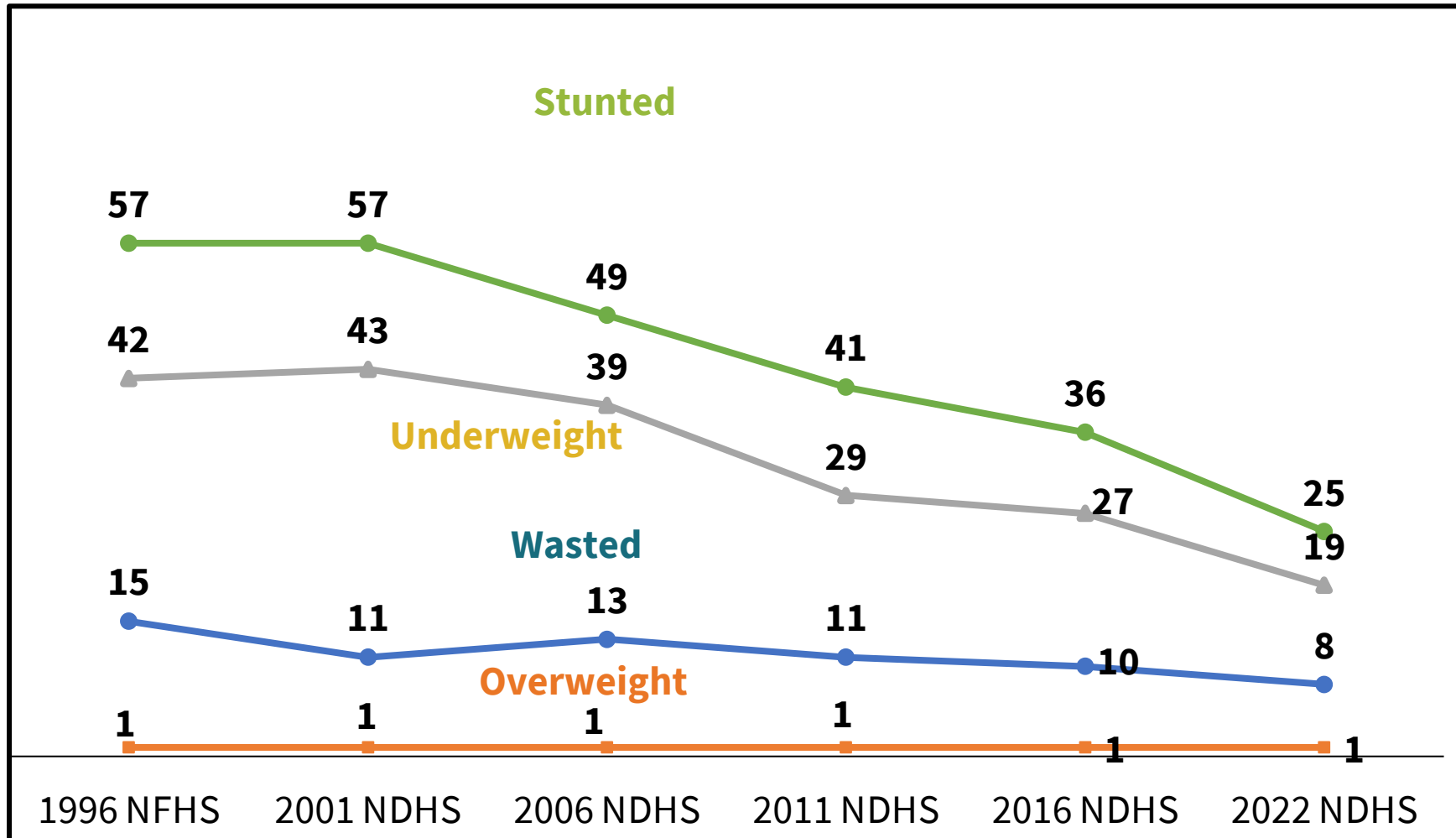
Trends in Child Growth Measures



Percent of children under 5 who are malnourished

Stunting by Province

Percent of children under 5 who are stunted



Prevalence of anxiety

Percent of women and men aged 15-49 who experienced symptoms of anxiety two weeks prior to the survey



11%



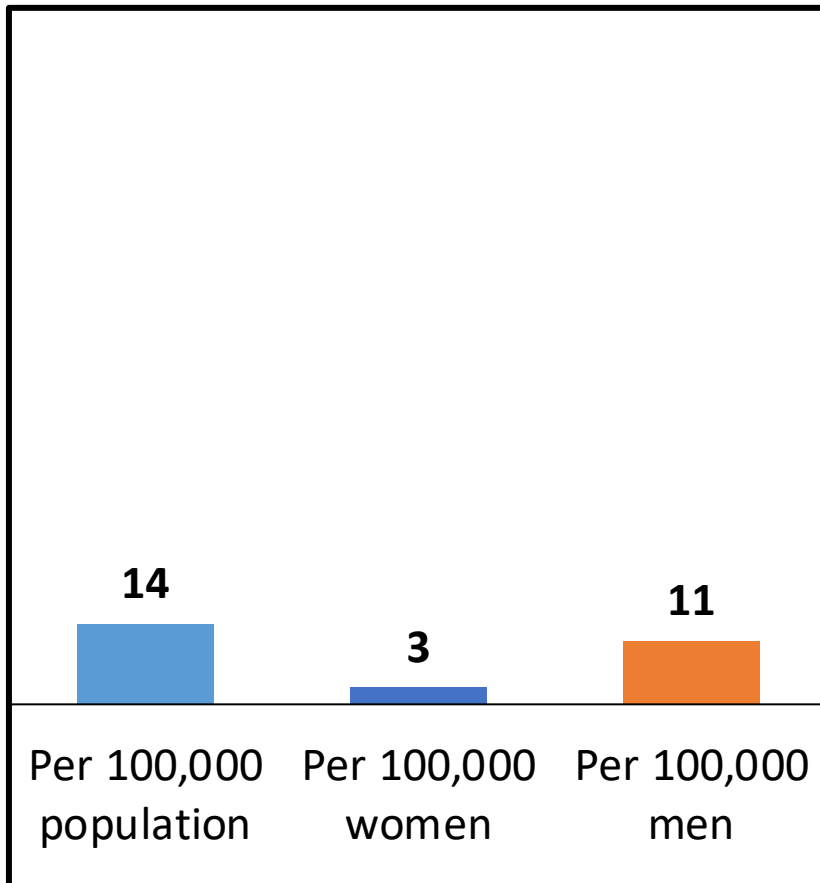
22%

Note: Respondents with a GAD-7 score of 6 or higher.

Road traffic accidents or crashes

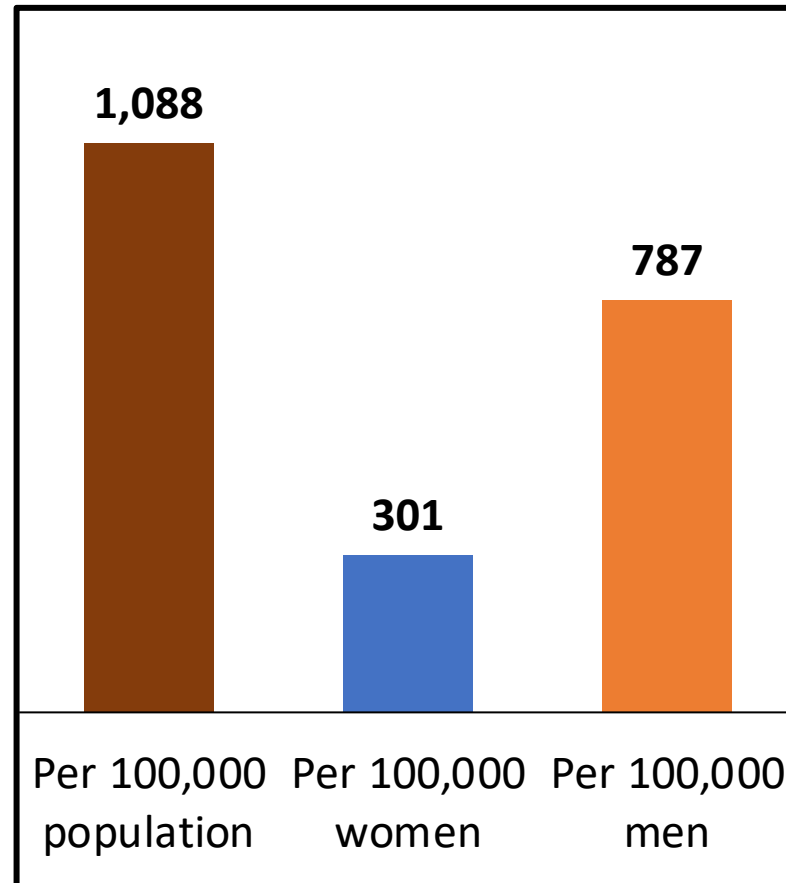
Number of deaths

Household population in the 12 months preceding the survey



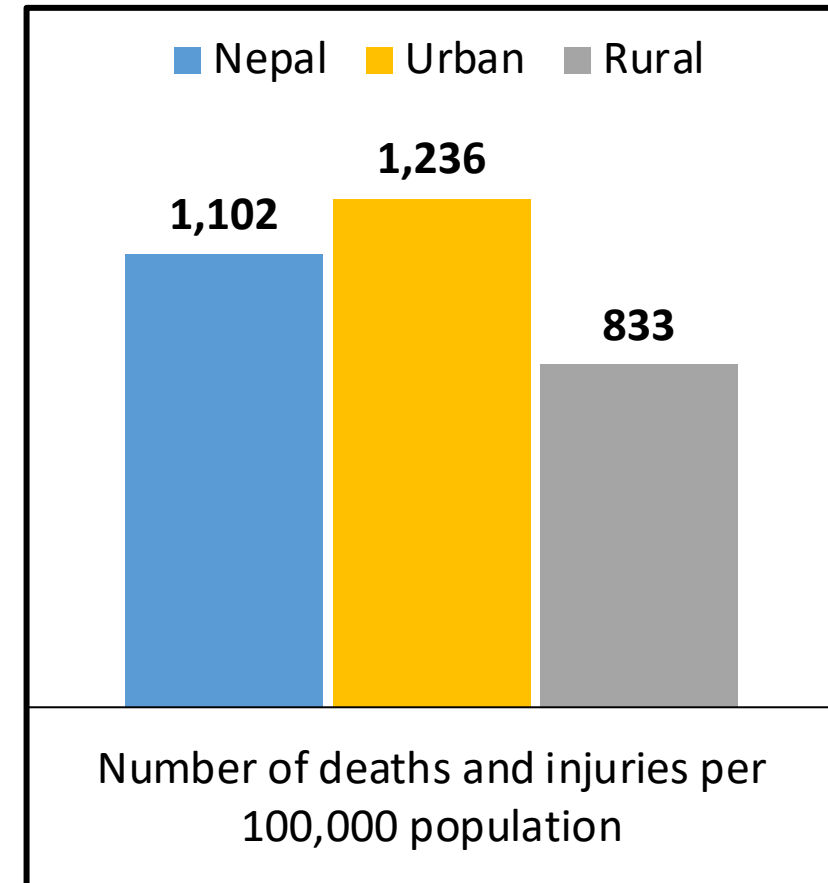
Number of nonfatal injuries

Household population in the 12 months preceding the survey



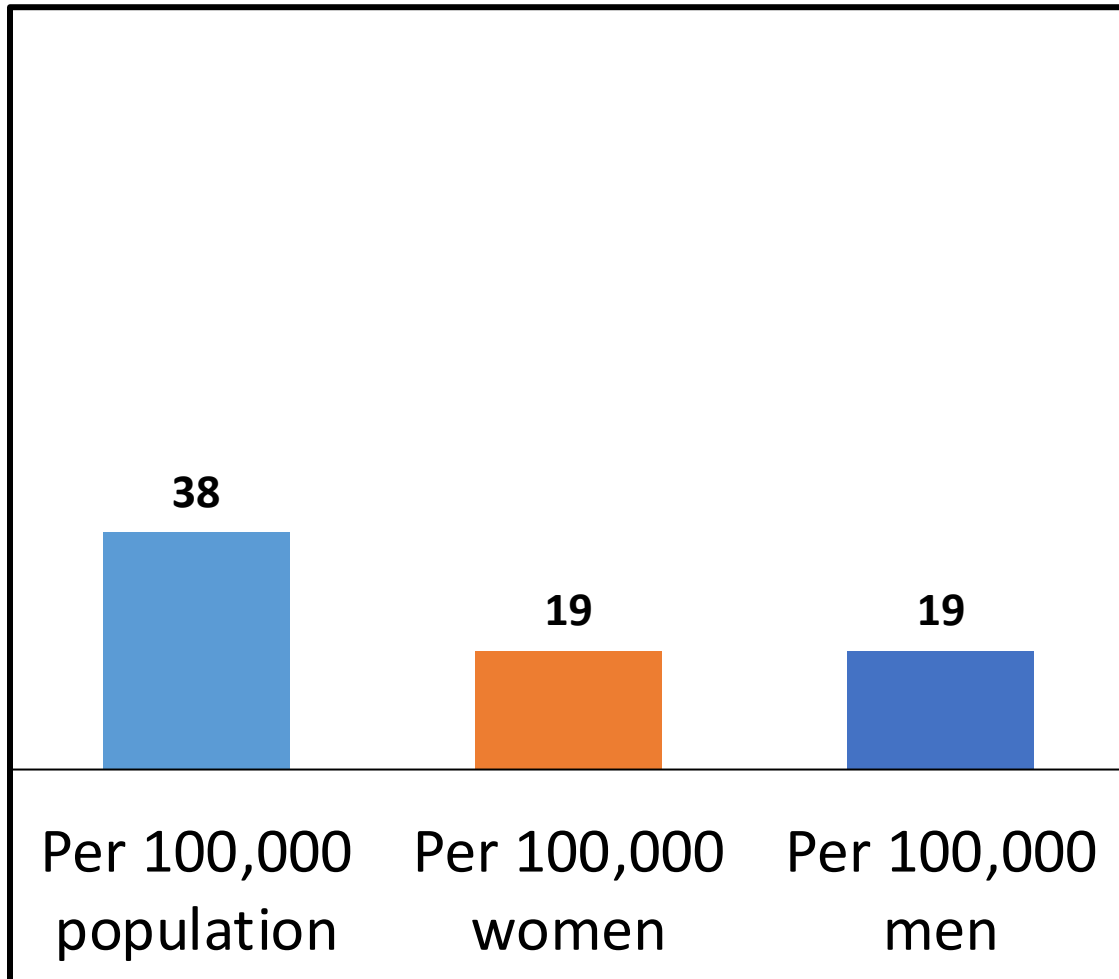
Number of deaths and injuries

Household population in the 12 months preceding the survey



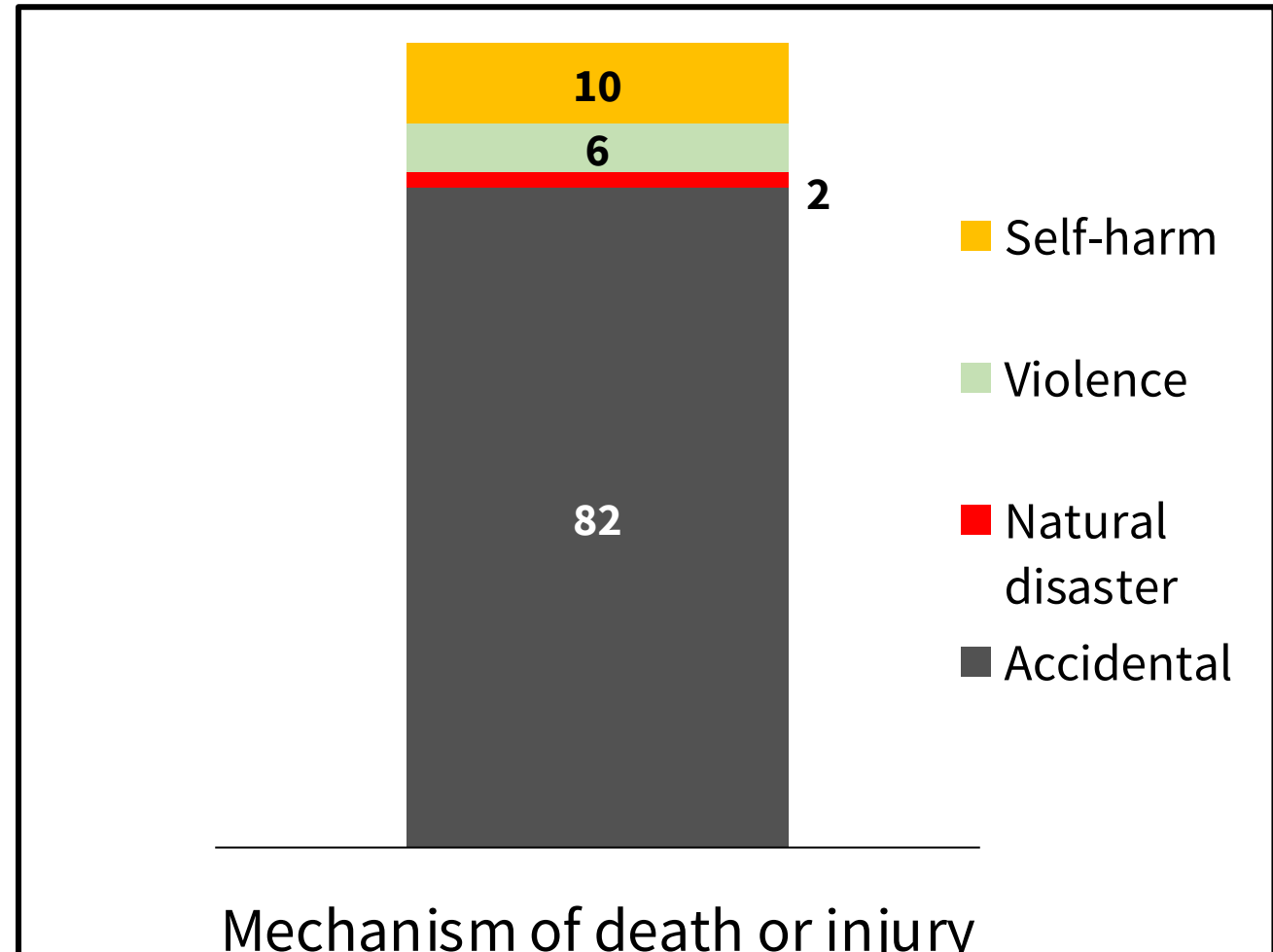
Number of deaths due to non-road traffic accidents

Household population in the 12 months preceding the survey



Mechanism of death or injury other than road traffic accidents

Percent distribution of people killed or injured in the last 12 months in incidents due to non-road traffic accidents



Summary

- 12(F) and 13(M) % of 15-49 years people covered by health insurance
- Exclusive breastfeeding is declining
- Neonatal mortality rate stagnated at 21 deaths per 1,000 live births since 2016
- The 15-19 years fertility rate is high at 71 births per 1000 girls
- 4% children did not receive any vaccine
- 18% of women and 23% of men aged 15 and above have hypertension
- Road traffic accidents are increasing
- 22% of women and 11% of men aged 15-49 experienced symptoms of anxiety in the two weeks before the survey
- 23% of women aged 15-49 have ever experienced physical violence and 8% have ever experienced sexual violence since age 15.

THANK YOU !!!