ReBUILD
FOR RESILIENCE

Strengthening coordination for shock preparedness and response: lessons for health system resilience

Working paper

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Preface

This paper draws on research and analysis conducted as part of eight projects undertaken by OPM and partners to support the work of development agencies and national governments (see Table 1).

We are grateful to the Bill and Melinda Gates Foundation (BMGF), Foreign and Commonwealth Development office (FCDO), United Nations Children's Fund (UNICEF), World Bank and Global Financing Facility for their funding and support for the initial reports, and for permission to use the findings for this synthesis.

We would also like to thank the original research project teams for their work in producing important findings and for their support with sharing documents for this synthesis. As part of this, we recognise and appreciate the support for the research and analysis used in this synthesis from key country government and research partners.

Table 1. Projects providing evidence for the synthesis

Project title	Funders and clients[1]	Key organisational partners for reports used in the synthesis[2]
Assessing the indirect effects of COVID-19 on essential health and nutrition services in selected rural and urban settings of Bangladesh	Funded by the Global Financing Facility, managed by the World Bank	Development Research Initiatives
Building Resilience in Ethiopia – Technical Assistance	FCDO and USAID	Ethiopia Federal Ministry of Health (FMOH), Ethiopian Public Health Institute (EPHI), Regional Health Bureaus; MERQ Consultancy; US Forest Service; Multi-DREM Consulting Service; VNG Consulting
Centre for Disaster Protection	FCDO	
District Health Systems Strengthening evaluation	Funded by BMGF, managed by UNICEF	
Maintaining essential services after a natural disaster	FCDO	Centre for Humanitarian Change (Kenya); Aga Khan University (Pakistan); Institute for Development, International Growth Centre, Dalan Development Consultants and College of Medicine and Allied Health Sciences (all Sierra Leone)
Policy and Institutions Facility – Nepal	FCDO	Ministry of Home Affairs and National Disaster Risk Reduction and Management Authority
Real time assessment of UNICEF's ongoing response to COVID-19 in eastern and southern Africa	UNICEF	
The Bihar Technical Support Programme - learning grant	BMGF	

[1] Funder indicated is for OPM input; some reports (such as COVID-19 intra-action reviews in Ethiopia) may also have been supported through other funding such as core government funds
[2] The wider projects also involve other partners; those listed here are restricted to any organisations involved in the research and analysis for reports used in the synthesis

Executive summary

Coordination and partnership are widely highlighted in policy and academic literature as important for health system resilience, and as such they have a core place in the ReBUILD for Resilience research framework. Coordination, cross-sector partnership and the roles of different actors in supporting resilience have also been identified as areas requiring further research. This paper contributes to the understanding of how to strengthen coordination and partnership by synthesising evidence from empirical experience managing COVID-19 and other public health emergencies in a range of countries in Asia and Africa. The paper examines the roles played by coordination and partnerships between different stakeholders (such as NGOs, development partners, the private sector, and local leaders as well as national and subnational government) in supporting health system preparedness and response to shocks; the strengths and weaknesses of government and stakeholder coordination structures at national and subnational levels; and factors that have either enabled or hindered effective coordination. Based on this, the paper outlines key lessons for effective coordination structures and systems that can support preparedness and response.

Overall, the findings highlight the importance of structural issues, such as:
- the availability of coordination fora, ongoing coordination structures that function before and after shocks, the mandate and authority of coordinating bodies, and streamlined information systems,
- the capacity of organisations with a role in coordination, including staff, skills and infrastructure, across relevant sectors and at different geographic levels, and
- political considerations and incentives, including leadership from government and collaborative alignment by development agencies.

Based on the findings, the paper proposes a set of considerations for supporting effective coordination and partnership. More detailed recommendations would need to be tailored to specific constraints and contexts, as well as via further research and evidence generation.

Coordination structures:
- Functioning coordination structures and fora for stakeholders to meet are needed, with regular and effective meetings.
- Coordination structures need to involve all relevant government sectors, including sufficient health sector representation, but also other sectors, such as water or agriculture.
- Structures need to involve stakeholders beyond government, including development agencies, universities, the private sector, and community leaders.
- Coordination structures need gender balance in representation and adequate expertise on gender relations and roles.
- Bodies responsible for coordination need clear roles to avoid overlapping remits, and sufficiently wide mandates to support responses to the range of relevant shocks.

- Coordinating bodies need sufficient authority to convene relevant actors and ensure implementation of agreed plans. Positioning directly under the president or prime minister (rather than in a ministry) can support this authority.
- Coordination structures need to function on an ongoing basis - before shocks occur to enable pro-active anticipatory planning, and after shocks to support learning and recovery.
- Using existing coordination structures can support coordination during shocks, by providing established organisational arrangements, roles, relationships and ways of working; new structures may require additional support.
- Organisational hierarchies need to support streamlined coordination with other sectors and agencies, enabling rapid information sharing and decision making.
- A unified contact point or forum for development agencies on the one side, and for government on the other, could ease coordination between multiple development agencies and government bodies.
- Two-way coordination and communication structures between national and subnational levels are required, such as clear systems for reporting information upwards, and national government responsiveness to district needs.

Capacities:
- Organisations tasked with coordinating shock preparedness and response need adequate capacity, including political skills, technical expertise to address different kinds of shock, sufficient staff, infrastructure, and other resources, including funding for coordination meetings where required. Depending on capacity gaps, this may require action in areas such as staff retention or financial resources to build infrastructure.
- To strengthen capacity, organisational systems need to support learning from previous experience, considering issues such as time for reflection, leadership to act on learning, and retention and exchange of organisational learning.

Leadership and motivation to coordinate:
- Senior government leadership can support coordination in a number of ways, including by promoting coordination across government sectors as well as with other stakeholders. Leadership is required at national and subnational levels, and in different government sectors.
- Political leadership needs to be balanced with technical input, both from within government and from other stakeholders.
- Political, organisational and individual incentives need to support coordination, for example in relation to transparent and accurate information sharing and staff commitment.
- Regular communication and reporting across levels can help to promote effective subnational government leadership and accountability.

Development agency roles:

- Development agencies need to ensure early engagement with government and joint discussion on priorities and areas for support, including at subnational level.
- Development agencies need to work collaboratively rather than competitively, including focusing on their comparative advantages.
- Consistent use of coordination systems (such as the cluster system or pooled funding mechanisms) by development agencies could support alignment and coordination.

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Abbreviations

BMGF	Bill & Melinda Gates Foundation
CDO	Chief District Officer
CMAM	Community-based Management of Acute Malnutrition
DACFC	Development Assistance Coordination and Facilitation Committee
DHMT	District Health Management Team
DRM	Disaster Risk Management
EOC	Emergency Operations Centres
ENCU	Emergency Nutrition Coordination Unit
EPHI	Ethiopian Public Health Institute
ERRA	Earthquake Reconstruction and Rehabilitation Authority
FCDO	Foreign, Commonwealth and Development Office
FMOH	Federal Ministry of Health
ICC	Interagency Coordination Committee (ICC)
IPC	Infection prevention and control
MoNHSRC	Ministry of National Health Service, Regulation & Coordination
MoA	Ministry of Agriculture
MoP	Ministry of Peace
NaCOVERC	National COVID-19 Emergency Response Centre
NCOC	National Command Operation Centre
NDMA	National Disaster Management Authority
NDMC	Natural Disaster Management Commission
NDRMC	National Disaster Risk Management Commission
NDRRMA	National Disaster Risk Reduction and Management Authority
NERC	National Emergency Response Committee
NITAG	National Immunization Technical Advisory Group
NGOs	Non-governmental organisations
NRA	National Reconstruction Authority
OPM	Oxford Policy Management
PDMC	Provincial Disaster Management Commission
PHEOC	Public Health Emergency Operations Centre
PHEM	Public Health Emergency Management
PPE	Personal protective equipment
PSNP	Productive Safety Net Programme
RCCE	Risk communication and community engagement
SNNPR	Southern Nations Nationalities and People's Region
TWG	Technical Working Group
UNICEF	United Nations Children's Fund

1   Introduction

The ReBUILD for Resilience research framework highlights the importance of coordination and partnership for health system resilience (1). In particular, the framework suggests that collaborative networks can support availability of resources, information, monitoring systems and the comprehensiveness, inclusivity and equity of resilience strategies. Coordination and partnership are also widely included in other frameworks on key requirements and strategies for health systems resilience and emergency management (2–9).

'Coordination' can be broadly defined as involving formal or informal mechanisms and arrangements for collaboration among stakeholder groups, designed to maximise the effectiveness and cohesiveness of action in support of resilience (10–12). 'Partnership' involves a collaborative relationship between two or more parties for the achievement of goals (13). These definitions overlap, both involving collaboration, and coordination and partnership are closely linked. We see effective coordination as enabling effective partnership, providing a platform for different stakeholders to jointly work together, and effective partnership in turn supporting coordination, through collaborative relationships enabling agreement on cohesive and aligned approaches. Within this paper, we focus on coordination in terms of different stakeholders jointly planning and organising their activities to ensure they are aligned and cohesive, and partnership in terms of joint working between different stakeholders to share ideas and resources. Effective partnership has a number of wider dimensions, such as mutual respect and accountability (9), which are largely beyond the scope of this paper.

While widely recognised as important, coordination, cross-sector partnership and the role of different actors in supporting resilience have been identified as areas requiring further research (14,15). This paper adds to current understanding on coordination and partnership by using empirical examples from experience managing COVID-19 and other public health emergencies in a range of countries in Asia and Africa. Drawing on research in these contexts, the paper examines the role played by coordination and partnerships with different stakeholders (such as NGOs, development partners, the private sector and local leaders, as well as government) in supporting health system preparedness and response to shocks; the strengths and weaknesses of government and stakeholder coordination structures at national and subnational levels; and factors that have either enabled or hindered effective coordination. Based on this, the paper outlines key lessons for effective coordination structures and systems that can support preparedness and response. Overall, the paper aims to support the ReBUILD for Resilience research agenda by examining what we can learn from research on public health emergencies about building effective coordination and partnerships to enhance resilience capacities in fragile and shock-prone settings, with a focus on practical insights into considerations for strengthening coordination and partnership. Our focus in examining strengths, weaknesses, enabling factors and lessons is on coordination, but with a view to ensuring that coordination can effectively enable

partnership between stakeholders. Given this focus, we primarily refer to coordination in the remainder of the paper.

Evidence for the paper is drawn from reports that examine aspects of coordination and/or partnership in Ethiopia, Kenya, Sierra Leone, South Sudan, Rwanda, South Africa, Uganda, Bangladesh, India, Nepal and Pakistan. Of these countries, only Ethiopia and South Sudan are on the World Bank 2022 list of fragile settings, but Nepal and Sierra Leone have been included in this list in previous years (16,17). All countries considered in the paper are shock prone, with Rwanda and South Africa classified as at medium risk of humanitarian crises and disasters, and all others classified as at high or very high risk (18). The range of shocks frequently experienced varies between countries, but includes floods, drought, displacement due to conflict or climate shocks, and disease outbreaks, and in some countries, earthquakes (for example, Nepal) or cyclones (for example, Bangladesh). In all these countries, COVID-19 has added to other public health emergencies.

Following a description of the methods and evidence sources, Section 3 examines the role played by coordination, both within government and with other stakeholders, in supporting preparedness and response. Section 4 then examines key factors that helped or hindered the effectiveness of coordination efforts. Finally, Section 5 draws conclusions and suggests considerations for strengthening coordination in support of health systems resilience.

2   Methods

The paper is based on evidence from reports produced or supported by OPM over 2019-21 (see Table 2). These reports were developed as part of different projects undertaken for a range of donor and country government partners. Some were conducted as standalone research or evaluations, and others as part of a wider technical assistance programme. The reports included formal research studies, but also rapid situation analyses, evaluations and other assessments, such as intra-action reviews undertaken in partnership with government. Methods included primary data collection through interviews, focus groups and workshop discussions, analyses of secondary data, and other document reviews (see Table 2). Coordination and/or partnership were the central focus for some reports. Others examined health system resilience broadly or focused on other dimensions of resilience (such as financing) but included information relevant for our research focus. All but one report focused on aspects of emergency preparedness or response, but we also drew on a report from one general health systems strengthening project that included information on coordination in relation to COVID-19.

The reports were synthesised using a coding framework to bring together information on similar issues from across the reports. The framework was developed based on the research questions, existing OPM knowledge of the reports' contents, and knowledge of key issues in the literature on coordination and partnership, and then adapted as reports were coded to include new codes.

Reports were not excluded on the basis of the quality of research methods or analysis. However, reliability of the findings was considered for inclusion of specific information, for example, only drawing on reported findings with clearer underlying evidence. This is in line with the approach to quality assessment in realist synthesis, considering 'nuggets' of useful information in reports that may otherwise have weaknesses (19). Most reports had been peer reviewed, both by senior OPM staff and external researchers, and all had some level of review from their funders or partner government.

The paper is based on a rapid analysis of an existing set of reports and has limitations. Synthesising findings from OPM reports brings new evidence to the discussion, as some reports were not publicly available, and none had been published in the academic literature, but a wider review of all available research would provide additional evidence. In addition, the reports come from different projects and have different areas of focus and research questions. As such, they do not provide directly comparable information across countries. Due to the varied foci and purposes of the original reports, some provide in-depth discussion and detail whereas others provide only summary information on coordination and partnership. Reports are also not evenly spread across countries; for example, a large number of reports were from Ethiopia due to a substantial OPM programme on resilience in the country. However, the reports do cover diverse country contexts, which helps to identify different approaches to and strengths of coordination.

Further work would be needed to fully examine coordination and partnership in these country contexts, including validating findings in this synthesis with the original project teams or other country stakeholders, and seeking additional evidence. Further work could also be used to provide a more in-depth cross-country analysis that examines why and how issues vary between national contexts, as well as between different types of shock. Comparing findings against existing evidence on coordination and partnership was also beyond what was possible for this paper. We hope to compare findings from these reports against existing frameworks in a forthcoming article.

Table 2. Reports included in the synthesis

Title	Year	Country	Focus	Methods	Project[3]
Intra-Action Review On Public Health Preparedness And Response To COVID-19 In Ethiopia	2020	Ethiopia	Identifying challenges and best practices in the response to COVID-19 to inform adaptation of the current response - national	Document review, interviews with government staff, focus group discussions with government staff and experts, validation workshop with government	Building Resilience in Ethiopia: Technical Assistance
Intra-Action Review On Public Health Preparedness And Response To COVID-19 In Gambella Region	2021	Ethiopia	Identifying challenges and best practices in the response to COVID-19 to inform adaptation of the current response – Gambella region	Document review, interviews with government staff, focus group discussions with government staff and experts, validation workshop with government	Building Resilience in Ethiopia: Technical Assistance
Intra-Action Review On Public Health Emergency Preparedness And Response To COVID-19 Sidama Regional Health Bureau	2021	Ethiopia	Identifying challenges and best practices in the response to COVID-19 to inform adaptation of the current response – Sidama region	Document review, interviews with government staff, focus group discussions with government staff and experts, validation workshop with government	Building Resilience in Ethiopia: Technical Assistance
Health Preparedness And Response To COVID-19 Report Oromia Regional State	2021	Ethiopia	Identifying challenges and best practices in the response to COVID-19 to inform adaptation of the current response – Oromia region	Document review, interviews with government staff, focus group discussions with government staff and experts, validation workshop with government	Building Resilience in Ethiopia: Technical Assistance

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[3] Please see preface for funders and key partners for each project

Title	Year	Country	Focus	Methods	Project[3]
Intra-Action Review On Public Health Emergency Preparedness And Response To COVID-19 South Nations, Nationalities and People's Regional Health Bureau	2021	Ethiopia	Identifying challenges and best practices in the response to COVID-19 to inform adaptation of the current response – SNNPR	Document review, interviews with government staff, focus group discussions with government staff and experts, validation workshop with government	Building Resilience in Ethiopia: Technical Assistance
Intra-Action Review on public health preparedness and response to COVID-19 Somali Regional Health Bureau	2021	Ethiopia	Identifying challenges and best practices in the response to COVID-19 to inform adaptation of the current response – Somali Region	Document review, interviews with government staff, focus group discussions with government staff and experts, validation workshop with government	Building Resilience in Ethiopia: Technical Assistance
Study to assess the effectiveness of the National Disaster Risk Management Commission's coordination role in recent disasters in Ethiopia	2021	Ethiopia	Assessing the effectiveness of the National Disaster Risk Management Commission's coordination role in recent disasters, including COVID-19, desert locusts, floods, drought, and conflict-induced displacement	Document review, interviews with national and subnational government, development agencies, NGOs and other experts	Building Resilience in Ethiopia: Technical Assistance
Rapid regional coordination system review	2020	Ethiopia	Understanding current emergency coordination mechanisms at the Regional and City level, and to identify challenges and areas for support (all experienced emergencies)	Interviews with subnational government	Building Resilience in Ethiopia: Technical Assistance
DRM mainstreaming gains in key ministries in Ethiopia	2021	Ethiopia	Assessing progress in the level of DRM mainstreaming in selected lead sector institutions (all experienced emergencies)	Document review, interviews with senior government and development agencies	Building Resilience in Ethiopia: Technical Assistance
Swan evaluation: a report on the findings	2021	Ethiopia	Evaluating an NGO consortium's rapid response mechanisms for humanitarian support, including provision of essential humanitarian supplies in health, WASH, shelter and non-food items(the SWAN project)	National and subnational interviews with government, development agencies, NGOs and community leaders, focus groups with beneficiaries	Building Resilience in Ethiopia: Technical Assistance

Title	Year	Country	Focus	Methods	Project[3]
BRE operational research: assessing the efficiency and effectiveness of emergency health financing mechanisms in Ethiopia	2021	Ethiopia	Examining the current emergency health and nutrition financing system, with case studies on malaria, cholera, COVID-19 and nutrition shocks, including drought and floods	Document review and analysis of secondary data	Building Resilience in Ethiopia: Technical Assistance
Initial COVID-19 responses in Bangladesh, Kenya, Pakistan, Sierra Leone, and Uganda	2020	Bangladesh, Kenya, Pakistan, Sierra Leone, And Uganda	Rapid situation analyses on the initial response to COVID-19 in the first few months of the outbreak, to identify learning around the national ability to respond to shocks	Document review and key informant interviews with government, development agencies and other experts	Maintaining essential services after a natural disaster
COVID-19 response: rapid country study: Pakistan	2020	Pakistan	Initial documentation of the early government response to COVID-19, to identify lessons and opportunities for providing support	Document review and key informant interviews with government, development agencies and other experts	Maintaining essential services after a natural disaster
COVID-19 response: rapid country study: Kenya	2020	Kenya	Initial documentation of the early government response to COVID-19, to identify lessons and opportunities for providing support	Document review and key informant interviews with government, development agencies and other experts	Maintaining essential services after a natural disaster
Sierra Leone's response to COVID-19	2020	Sierra Leone	Describing initial government efforts to respond to COVID-19, and to understand COVID-19's impact on health and non-health aspects of life	Document review, interviews with government and NGOs, virtual attendance at EOC inter-pillar meetings, survey of community members	Maintaining essential services after a natural disaster
The effectiveness of the Sierra Leone health sector response to health shocks: evidence from the COVID-19 perception survey	2020	Sierra Leone	Examining perceptions of national and district government staff, development agencies, health workers and members of COVID-19 coordinating committees on the COVID-19 response, with specific focus on service delivery, leadership and governance, health workforce, and community ownership and participation	Survey of 303 respondents using computer-assisted interviewing	Maintaining essential services after a natural disaster
Beyond the state: the role of traditional leaders in COVID-19	2020	Sierra Leone	Rapid scoping study to describe district-level coordination and implementation of policy relating to COVID-19, including the role of traditional leaders in the response	Interviews with district government, traditional leaders, and health professionals in Kono district	Maintaining essential services after a natural disaster

Title	Year	Country	Focus	Methods	Project[3]
Climate shock responsiveness of the Kenya health system	2020	Kenya	Examining how county-level actors prepare for and respond to climate shocks, focusing on drought and flood events in 2019 in the northern Kenyan counties	Document review, secondary data analysis, and interviews with subnational government, development agencies and health workers	Maintaining essential services after a natural disaster
Innovation history of the CMAM Surge approach towards a shock-responsive health system in Kenya	2020	Kenya	Understanding the processes, enablers and barriers to the emergence and development of CMAM Surge, and its perceived potential and limits to building health system shock-responsiveness	Document review, interviews with national and subnational government, development agencies and NGOs, health workers	Maintaining essential services after a natural disaster
Response and preparedness for essential health and nutrition services during disasters in Pakistan	2021	Pakistan	Examining health system preparedness and response to shocks (floods, droughts and COVID-19), including national and subnational government mechanisms, experience with recent shocks, and community needs and resilience	Document review and analysis of secondary data, key informant interviews with national and provincial government, NGOs, health workers, development agencies, community stakeholders and other stakeholders, focus groups with CHW and community members	Maintaining essential services after a natural disaster
Assessing the Indirect effects of COVID-19 on essential health and nutrition services in selected rural and urban settings of Bangladesh.	2021	Bangladesh	Understanding the impacts of COVID-19 on delivery of essential health services by government and private providers in urban and rural areas, including demand and supply-side challenges and coping strategies	Secondary data analysis, interviews with health service providers, community leaders, and key informant stakeholders (including government, NGOs and academics), focus groups with service providers	Assessing the indirect effects of COVID-19 on essential health and nutrition services in selected rural and urban settings of Bangladesh
Learning from Nepal NRA to inform the National Disaster Risk Reduction and Management Authority	2019	Nepal, and review of experience in Pakistan, India, and Bangladesh	Identifying learning from the National Reconstruction Authority (NRA) experience, to inform development of the new National Disaster Risk Reduction and Management Authority (NDRRMA).	Literature review, consultations with NRA officials, other stakeholders familiar with the NRA, development agencies and NGOs, review of experience with reconstruction and disaster management in other South Asian countries (India, Pakistan, Bangladesh)	Policy and Institutions Facility – Nepal

Title	Year	Country	Focus	Methods	Project[3]
Disaster risk reduction and management in Nepal: delineation of roles and responsibilities	2020	Nepal, and review of experience in Pakistan, India, Bangladesh	Providing policy recommendations on the delineation of roles, responsibility and accountability of federal, provincial and local governments for disaster risk reduction and management, including understanding existing subnational capacities	Document review, consultations with local government leaders and bureaucrats, development agencies and other experts	Policy and Institutions Facility – Nepal
Managing the COVID-19 Crisis: insights from Kerala	2021	India	Examining the Kerala government's early response to COVID-19, including mechanisms used to control the pandemic	Document review, a small number of interviews with representatives from senior government, self-help groups and health workers	The Bihar Technical Support Programme - learning partner
Real-time assessment (RTA) of UNICEF's ongoing response to COVID-19 in eastern and southern Africa: COVID-19 vaccine supply and rollout	2021	Ethiopia, Rwanda, South Africa, South Sudan	Assessing UNICEF's support to COVID-19 vaccine supply in the eastern and southern Africa region, in order to support learning for ongoing and future support	Document review, interviews with national and local government and development partners	Real-time assessment of UNICEF's ongoing response to COVID-19 in eastern and southern Africa
Evaluation of UNICEF's District Health Systems Strengthening Initiative	2021	Uganda (evaluation also covered Kenya, Malawi, Tanzania)	Evaluating a cross-country programme to strengthen subnational health planning and management	Document review, interviews with national and local government, implementing partners and other stakeholders, focus group with local government	District Health Systems Strengthening Evaluation
Opportunity Cost of COVID-19 emergency expenditure reallocations: inception report	2020	Pakistan, South Africa	Examining the costs and benefits of using ex-post public budget reallocations, as a financing instrument for disaster response	Document review and analysis of secondary data	Centre for Disaster Protection

3   The contribution of coordination and partnership to effective shock preparedness and response

Across countries and types of shock, effective coordination and partnership were found to be important influences on shock response, either as a supporting factor when coordination was strong, or a limiting factor when coordination was insufficient. Based on review of the reports, this section examines the contribution of coordination and partnership to preparedness and response, considering coordination within government, and coordination and partnership with other stakeholders.

3.1   Coordination within government

Resilience is affected by social determinants of health related to sectors such as social protection, WASH, and agriculture, and shocks often affect a broad range of social outcomes. Consequently, effective preparedness and response require action by multiple government ministries and sectors. Wider government budgeting and public financial management systems also affect shock preparedness and response, making coordination with ministries of finance important to ensure adequate and timely resource availability.

The **need for cross-sector coordination within government was widely seen with regards to the COVID-19 pandemic**, particularly due to the effects of public health containment measures on areas such as education and livelihoods. The involvement of ministries beyond health helped to identify and, to varying extents, mitigate these impacts, by providing expertise and implementing relevant activities. For example, in Sierra Leone, COVID-19 response pillars were led by different ministries: the Ministry of Defence led overall coordination, operations and logistics, the Ministry of Information and Communication led on risk communications, the Directorate of Science Technology and Innovation coordinated ICT and data management, and the Ministry of Welfare, in coordination with the Ministry of Health and Sanitation (MoHS) mental health division, led the psychosocial pillar and was also involved in scaling up social protection. During the initial response period, representatives from each pillar met daily at the National COVID-19 Emergency Response Centre (NaCOVERC) (20). While the wider government engagement supported a cross-sector response, stakeholders – particularly within the MoHS – felt health sector representation in decision making and coordination between the NaCOVERC and MoHS were inadequate, resulting in insufficient technical input and reducing the effectiveness of the response (21). This highlights the need not only for engagement of multiple governmental agencies, but also for their effective coordination to appropriately balance input from different government sectors.

Gaps in multi-sector coordination also affected the COVID-19 response in Ethiopia. The Emergency Coordination Centre of the National Disaster Risk Management Commission (NDRMC) was established to coordinate multi-sector action on COVID-19, particularly non-pharmaceutical interventions such as food assistance (with bodies such as the Ministry of

Health COVID-19 task force and EPHI PHEOC leading on health). However, insufficient cross-sector coordination was seen as negatively affecting planning and implementation of the COVID-19 response; for example through delays in action by other sectors and duplication of effort (22,23). Similar issues were noted at subnational level. For example, in Oromia, a decline in multi-sector coordination after the initial emergence of COVID-19 contributed to reliance on the health sector and insufficient resources for the response (24). Insufficient coordination between response pillars and teams was also seen as reducing effectiveness in specific areas; for example, insufficient links between those leading on WASH and Infection Prevention and Control (IPC) and those leading on case management, points of entry or other relevant sections reduced attention to IPC as a cross-cutting issue (22).

Examples from other types of shocks also illustrate the **importance of cross-sector government coordination for effective preparedness and response**. In Pakistan, the Meteorological Department provides advance forecasts that give disaster agencies and the provincial government Health Departments time and information to prepare for droughts. These forecasts also help government Planning and Development and Finance departments to allocate budget and relief programmes. However, cross-sector engagement and involvement of departments beyond Health is inconsistent, and often insufficient. For example, risk mapping and needs analysis is not comprehensive due to a lack of coordination between the Disaster Management Authorities that conduct this analysis, and departments responsible for areas such as food, health, population and social welfare. Similarly, several government departments have a role in providing supplies during emergencies, but inadequate coordination and communication can bring inefficiency or inappropriate supplies. For example, the Food Department provides wheat and rice during droughts, but a lack of communication with the Nutrition Department can mean ration bags do not have appropriate contents for all age groups (25).

As well as ensuring adequate input to decision making and aligned action across different sectors, coordination within government can support accountability for action. This was seen with the COVID-19 vaccine rollout, where **regular communication and reporting across government levels helped to promote more effective engagement** by subnational actors. In Ethiopia, zones were required to present to the Federal Ministry of Health (FMOH) in daily zoom meetings, and in Southern Nations Nationalities and People's Region (SNNPR) a weekly zoom meeting was held between zones and the Regional Health Bureau, with follow up by senior Regional Health Bureau managers. These meetings created accountability and helped to address weak government leadership in some districts (26). Similarly, in South Africa, the expectation on province governments for daily and weekly reporting, through national presentations, helped to promote accountability and action by subnational government (26).

The **need for coordination between financial decision makers and technical teams** is illustrated by experience with county systems in Kenya. There the health sector competes with other sectors for county emergency funds. Rather than being automatically released, allocation of funding is negotiated through county and subcounty discussions. The county decision makers have limited engagement in technical discussions on drought preparedness

and response, and decisions are affected by political negotiation within government, and political influence from external stakeholders such as private sector water trucking companies. Consequently, funding may be allocated to other priorities, such as food relief and WASH, leaving insufficient funding for health, and the required negotiation delays the release of contingency funds and the reallocation of budgets, and can mean county funds and commodities arrive too late to support the response (27,28).

3.2   Coordination and partnership with actors outside government

Beyond government, coordination is needed with stakeholders such as development agencies (including bilateral and multilateral donors, NGOs, and both humanitarian and development organisations), research institutes, local leaders and the private sector. These other actors have the potential to make a significant contribution to emergency preparedness and response, and effective coordination enables and strengthens their role.

The **contribution of development agencies** was prominent across countries. For the COVID-19 response, development agencies provided funding through reallocating funds or supplementary budgets; technical expertise and in-kind support in areas such as planning, monitoring, logistics systems, infrastructure and supplies (including PPE), communications and community engagement, training and provision of additional health workers; and service delivery of both COVID-19-specific activities, such as vaccines, and routine essential services (22,26,29–31). Support from development agencies also contributed to preparedness; for example, through prior investment in strengthening systems for routine vaccinations, which provided a platform for delivery of COVID-19 vaccines (26). Development agency support was particularly critical for the lowest income countries; for example, in Sierra Leone, the government was largely dependent on external support to fund the COVID-19 response (20).

Beyond COVID-19, other examples of development agency contributions to shock preparedness and response have been seen with drought and associated nutrition emergencies in Kenya. Development agencies' roles have included support for nutrition supplies, both through direct provision and strengthening government ordering and monitoring systems to reduce stock-outs, and support for human resources, including through funding the MoH to recruit additional staff, recruiting staff directly, seconding their own staff to health facilities and outreach services, and advocating county governments to recruit and retain staff in the longer-term (28). Development agencies have also supported innovative approaches, such as Community-based Management of Acute Malnutrition (CMAM) Surge (which involves use of facility thresholds to trigger surge action) (27). Similarly, in Ethiopia, development agencies have provided humanitarian support with WASH, shelter and health in response to drought, floods, conflict-induced displacement and disease outbreaks (32). For example, UN agencies provided rapid response teams, supplies and support in areas such as community engagement to help tackle cholera outbreaks (33).

However, weaknesses in support from development agencies are also widely documented, such as funding being delayed, short-term, unpredictable and insufficient; resources only being provided in response to shocks rather than for preparedness; duplication between partners;

gaps in geographic coverage of partner support; multiple funding streams, and insufficient alignment with local priorities. These difficulties are seen in countries such as Ethiopia, Kenya, Uganda and Pakistan, and with COVID-19 and other shocks such as drought (22,23,25–29,32–34).

While not all weaknesses can be fully addressed through coordination (for example, some relate to higher-level funding structures), strong coordination can help to make development agency roles effective. For example, in Ethiopia, national coordination with partners for the COVID-19 response was seen as enabling clear division of roles, mobilisation of resources, and sharing of international evidence (22,26). Where coordination with partners was insufficient, this reduced the value of their input. For example, in Somali region, gaps in communication and information sharing with the regional government and lack of development agency attendance at Emergency Operations Centre (EOC) meetings contributed to duplication of agency activities and resources (35).

Coordination was also an important influence on effective development agency contributions to the COVID-19 response in other contexts. For example, strong coordination supported effective partner roles in Rwanda, and insufficient coordination reduced effective partner support for the COVID-19 response in Kenya and South Africa (26,29).

The importance of coordination for effective development agency support has also been documented for other shocks, such as drought and floods. In Pakistan, there is relatively strong coordination between international development agencies and national government agencies, such as the National Disaster Management Authority and Ministry of National Health Service, Regulation & Coordination (MoNHSRC). However, insufficient coordination between national and subnational levels means programmes supported by development agencies are sometimes misaligned with local needs. At province level, NGOs and local organisations liaise directly with Provincial Disaster Management Authorities when designing relief programmes, but there is no multi-stakeholder consultation to assess all available resources and develop a comprehensive plan, resulting in gaps and duplications in disaster response (25).

Collaboration with local leaders and civil society organisations has also contributed to effective responses. In Ethiopia, the Oromia and Sidama regional governments worked with community leaders and artists' associations to disseminate messages on COVID-19 (24,36). There was also significant collaboration with civil society in a wider sense through volunteering campaigns, such as organising voluntary support for maintaining and installing hospital beds and equipment in Addis Ababa to support case management (22). In Kono, Sierra Leone, traditional leaders were involved in district decision making for COVID-19 and played important roles in the response, including monitoring district and international borders to support compliance with the travel ban, and sensitising communities on COVID-19 health measures. Some district health management teams (DHMTs) also worked with youth leaders to disseminate information (37). Similarly, in Lamwo, Uganda, the DHMT worked with local councillors and village health teams to support surveillance and monitor border points (30).

In Kerala, India, the state government worked closely with civil society groups, such as women's self-help collectives, trade unions and volunteers, both for COVID-19 and earlier shocks such as floods in 2017 and 2018. These groups provided support in areas such as community awareness, making masks, and running community kitchens, and the partnership also helped build trust between citizens and government (38).

Collaboration with religious leaders has also been an important influence on effective shock response. During the early stages of COVID-19, positive roles were played by religious leaders in Bangladesh, Kenya, and Uganda; for example, disseminating information and closing mosques or churches to support physical distancing. In Pakistan, the relationship between government and religious leaders was more difficult: despite attempts at coordination, religious leaders opposed physical distancing measures and large religious gatherings continued, contributing to the spread of infection (39). The risk of disagreement on appropriate measures between religious communities and public health leaders underscores the importance of effective partnership and coordination with these actors.

The **private sector** is a further important actor in shock response, with coordination again enabling its contribution. During COVID-19, the private sector in several countries became an important provider of medical supplies and supported other aspects of the response. For example, in Ethiopia, the government worked with private sector manufacturers to increase the local production of equipment such as laboratory kits, IPC supplies, PPE, ventilators and other medical products. While there were constraints related to limited local production capacity and quality defects, partnership with the private sector helped to address supply shortages (22). Collaboration also enabled private sector support for the maintenance of oxygen plants and ventilators, testing in private laboratories, provision of properties for use as quarantine centres, funding, and the provision of life and disability insurance for health workers (22). Private sector media companies also provided free airtime to disseminate information on COVID-19 (24). In Kenya, the private sector worked with the Ministry of Trade and Industry to provide oxygen and PPE, and some county governments worked with garment manufacturers to reorient production towards PPE. The technology industry developed software to aid laboratory testing and a digital dashboard to monitor supplies, and other companies contributed to the development of supply chains and systems to monitor demand (29). In Uganda, the MoH worked with telecommunications companies to establish toll-free COVID-19 information hotlines (29).

The role of private health providers has varied. Private hospitals provided additional treatment capacity for the COVID-19 response in some countries (for example, Ethiopia, Kenya, Uganda) (29,36), though often only for those patients who have insurance or funds to cover medical fees (29). Reports indicate the importance of clear coordination for an effective private health provider role. In Pakistan, there was insufficient coordination in government guidance to private hospitals, with information understood and communicated differently by different levels of government. This caused confusion, and meant some private hospitals started offering services and were then asked to close by district-level administration (29). In Bangladesh, some private health providers stopped offering services during lockdowns, in part

due to travel restrictions and difficulty in passing police checkpoints. Closer coordination between the government and private providers could have encouraged continued private sector service delivery and helped to avoid undue scrutiny from the police (31).

Finally, coordination with research institutes and universities brought their support to the COVID-19 response. In Ethiopia, most public universities and colleges were actively engaged in the response. A Scientific Advisory Council and COVID-19 research consortium were established to support the FMOH and EPHI as part of the response coordination system, working in collaboration with the Ministry of Science and Higher Education (22). Experts provided advice through the Council and contributed to technical guidance, and these fora also contributed to operational research to guide the response. Research institutes and universities also helped to scale up testing capacity: EPHI provided test kits to university laboratories, and more than 15 universities provided testing. Academic institutes also contributed to the production of IPC supplies. Coordination with universities at subnational levels, via Scientific Advisory Councils for regional health bureaus, also provided expertise, research, additional laboratory capacity and PPE production (24,36,40). However, reviews indicated that the role of universities would have been more effective with stronger coordination, as a lack of established platforms for research coordination contributed to delays in the identification and implementation of research priorities (22).

These examples show the need for coordination, both within government and with other actors. The next section considers factors that have enabled or hindered effective coordination for shock preparedness and response.

4 What enables effective coordination?

A range of factors have helped or hindered coordination, both within government and between government and other stakeholders. Some issues relate to the availability and functioning of coordination platforms, some to wider political considerations and governance, and some involve the approach taken by actors outside government. Twelve key enablers are discussed below.

4.1 Availability of coordination structures and regular meeting fora

A basic requirement for effective coordination is the **availability of fora where different actors can come together to discuss activities and share information**. The value of functional structures for development agencies and government to meet regularly has been seen with the COVID-19 vaccine rollout (26). In Ethiopia, Rwanda and South Sudan, regular meetings between government and partners helped to move activities forward, share information, establish relationships, clarify roles and avoid duplication in partner activities, and provided a forum for partner input to government plans. In Ethiopia, stakeholders saw the existence and functionality of structures such as the National Immunization Technical Advisory Group (NITAG), interagency coordination committee (ICC), and EPI technical working group (TWG) as critical for success. In Rwanda, structures such as the ICC, COVID-19 task force and TWGs included relevant government and partner stakeholders and allowed joint planning and sharing of information.

In contrast, South Africa did not have a clear or consistent forum for coordination between government and development agencies on COVID-19 vaccine rollout. Lack of coordination among UN agencies is a longstanding and wider challenge in South Africa, partly related to the absence of an ICC for immunisation. The National Advisory Group on Immunisation (NAGI) includes some agencies with observer status, but both this group and the Ministerial Advisory Committee on COVID-19 (which leads overall COVID-19 policy) focus on setting policy among senior officials, rather than bringing together technical staff to coordinate implementation. The absence of regular coordination fora is significant because many development agencies work on COVID-19, and insufficient sharing of information and joint planning brought duplication in roles and missed opportunities for greater impact through aligned and pooled resources. It also led to confusion on tools for vaccine rollout, as each agency brought their own system (for example, tools for monitoring and reporting). Without a shared structure, discussions were bilateral, between one agency and government, or between two development agencies. This had a further negative effect of increasing pressure on government staff time, due to multiple meetings with individual agencies rather than one joint fora (26).

A similar coordination gap was seen in Kenya for the broader COVID-19 response. Development agency engagement was initially strong, supported by coordination through the National Public Health Emergency Operations Centre (PHEOC), with frequent multi-stakeholder meetings. In mid-February 2020, a new National Emergency Response Committee

(NERC) was established to lead the response, and the PHEOC's role became advisory. The NERC was a central body only accessible to top government officials, with no development agency involvement. The consequent lack of a forum for joint development between agencies and government decision makers contributed to insufficient coordination on areas such as the provision of laboratory supplies (41).

In Ethiopia, PHEOCs retained an important coordination role for the COVID-19 response. The national PHEOC, established under the Ethiopian Public Health Institute (EPHI), was key for agreeing plans, sharing information and coordinating resources through regular EOC meetings and development agency coordination fora (34). Coordination through these structures and related task forces supported development agency and stakeholder contributions to areas such as risk communication and community engagement (RCCE), case management and development of treatment, quarantine and isolation facilities (22). The National Disaster Risk Management Commission (NDRMC) also activated an Emergency Coordination Centre (ECC), which brought together line ministries and development agencies (34). Where fora were lacking or irregular, this created difficulties for the response. For example, joint planning and prioritisation were hindered by the interruption of weekly coordination meetings between the FMoH and the EPHI PHEOC, and by uncoordinated modelling and forecasting exercises – in part due to the lack of a platform to synergise modelling outputs from different teams and institutions. This hindered decision making and meant interventions were sometimes poorly targeted or introduced before plans were finalised (22).

Beyond COVID-19, the NDRMC in Ethiopia has several platforms for multi-sectoral coordination, such as the Disaster Risk Management (DRM) TWG, which meets monthly and operates at national and subnational levels, and the Multi-Agency Coordination Committee and Emergency Operations Centre, which are activated when an incident occurs. These platforms bring different actors together and facilitate the flow of information from the emergency location to the NDRMC, helping to speed up and coordinate emergency responses, and to support partner engagement and NDRMC decisions on resource allocation (34). The humanitarian cluster system has also supported coordination in Ethiopia. Although there are weaknesses of the cluster structures, regular cluster meetings and the Inter-Cluster Coordination Group bring together different partners and help to avoid duplication in emergency response (32).

Availability of coordination fora at subnational levels has also supported stakeholder engagement in shock preparedness and response. In Kenya, a range of county government coordination structures have been established since devolution, such as County Steering Groups, which include line ministries and development agencies, and Disaster Management Committees, which include the County Executive, senior county officials and humanitarian agencies. These structures have improved stakeholder engagement, cross-sector coordination amongst line ministries and with development agencies, sharing of early warning and other information, and clarity on roles, and they were seen as contributing to the faster response to the 2019 drought (28). For example, partnership between development or humanitarian agencies and county health officials through these structures helped to maintain buffer stocks

for nutrition commodities, to redistribute nutrition supplies, and to scale up integrated health outreach (28).

Other examples of the value of subnational coordination fora are seen with the COVID-19 response. In Kerala, India, the state government promoted the use of 'intersectoral convergence meetings' at district and block levels to support the COVID-19 response. These meetings brought together a wide range of actors, including local government, health sector representatives, police officers, hotel owners, and others. Meetings outlined roles and responsibilities and identified ways different actors could contribute to the response, such as the use of hotels for quarantine facilities (38). In Uganda, district taskforces on COVID-19 enabled coordination between government and aid agencies and provided a channel to request partner support with technical expertise and resources. For example, in Lamwo, the DHMT reported that regular taskforce meetings contributed to partner support in areas such as transport for referrals and other aspects of the response (30).

In Ethiopia, subnational EOCs have supported effective response efforts for COVID-19 and other emergencies. In late 2016, there was an increase in conflict-induced displacement in south-east Ethiopia, leading to humanitarian needs in 2017. In 2018, the newly-installed Federal Government established EOCs in the administrative capitals of the affected zones (Gedeo and West Guji), the first time subnational EOCs had been used. The EOCs convened federal NDRMC representatives, zonal and woreda (district) officials, and provided a platform for local use of the cluster system. Although there were difficulties related to the new development of these structures, the EOCs helped to generate real-time information, to ensure federal decision makers understood local issues, and to support coordination between federal and local government and with humanitarian agencies. This coordination supported effective partnership in response and rehabilitation activities, such as targeting and verifying food aid distribution (23).

Subnational PHEOCs also supported coordination of the COVID-19 response in Ethiopia. For example, in Sidama and SNNPR, regional PHEOCs were established at an early stage and provided a platform for coordination between the government and other stakeholders. Although there were some gaps in coordination (such as the capacity gaps in Sidama discussed in 4.3), the PHEOC platform enabled technical and financial support from development agencies and other stakeholders (such as universities), sharing of information, and coordination of available resources. This in turn enhanced the speed and effectiveness of response activities, such as risk assessment and community awareness campaigns (36,42). Subnational health cluster structures also supported the response, with weekly health cluster meetings in Gambella providing a forum for updates from development agencies, joint problem solving, and agreement on activities (40). In other cases, the absence of PHEOCs (or adequate alternative coordination fora) at subregional levels negatively affected the response. In Somali, the regional-level PHEOC supported coordination, but the lack of zonal- and woreda-level PHEOCs made subregional coordination less effective, contributing to difficulties in sharing information between levels, duplication of partner activities, and gaps in the response (35). Similarly, in Oromia, the absence of zonal EOC platforms hindered local coordination, resource

mobilisation and COVID-19 response activities (24).

Where structures for dialogue exist, these need to provide effective and regular platforms for discussion. The frequency of meetings was emphasised in Ethiopia and Uganda, with regular discussion among development agencies and with government helping to prepare for vaccine rollout in Ethiopia (26), and weekly district task force meetings supporting the COVID-19 response in Uganda (30). In Nepal, the Development Assistance Coordination and Facilitation Committee (DACFC) was designed to coordinate support for post-earthquake reconstruction between the government and development agencies, but there has been criticism that meetings follow a formal agenda that does not encourage productive discussion, and that more frequent communication is needed outside these meetings. Partly because of the lack of functional platforms for policy dialogue, development agencies reported gaps in coordination and communication with the government NRA (43).

4.2 Clear roles and mandate for coordination bodies

Organisations and other structures leading shock preparedness and response need clear roles and mandates to enable effective coordination. There are several examples of multiple bodies being involved in coordination, with **insufficient clarity on their roles and overlapping mandates** hindering the response.

In some cases, **overlapping mandates have resulted partly from the development of new structures**, sometimes in response to emergencies. In Pakistan, after the 2005 Kashmir earthquake, the government established Earthquake Reconstruction and Rehabilitation Authority (ERRA) to support rescue, relief and reconstruction in the affected regions. In 2007, a National Disaster Management Authority (NDMA) was established. In 2011, the government decided to merge the ERRA into the NDMA, but with the ERRA continuing its on-going projects until 2019. Creation of the NDMA and continuation of the ERRA has brought overlap and confusion regarding the roles of these two institutions. This contributed to the slowing of reconstruction efforts through longer and more complex policy, bureaucratic and financial management processes (43). The 2010 National Disaster Management (NDM) Act also established the Natural Disaster Management Commission (NDMC), responsible for the development of policies, guidelines and plans. There are also Provincial Disaster Management Commissions (PDMCs), and Provincial and District Disaster Management Authorities. There are many overlapping areas between the different bodies and between government tiers, which creates ambiguities regarding responsibilities (44).

In Ethiopia, there are examples of effective work to clarify the roles of different organisations. With the 2017-18 IDP crisis in Ethiopia, an accountability matrix was developed for the IDP camps detailing who was responsible for what, with each sector and cluster responsible for activities related to its mandate and expertise (23). However, **a lack of clarity on the role of key coordinating bodies has affected coordination between sectors and levels** with other emergencies. In particular, and partly due to changes in status and the current position within a ministry (see 4.4), the Ethiopia NDRMC's mandate and role in relation to the responsibilities of line ministries has been unclear for many stakeholders (23). This lack of clarity is seen in the

nutrition sector, with insufficient guidance on responsibilities for nutrition emergency management and ambiguity in roles between the MoH, EPHI, and NDRMC. A lack of clear roles at national level hinders development of coordinated structures for nutrition emergency management at regional, woreda, and zone levels. A new 10-year Strategic Plan for Public Health Emergency Management (PHEM) developed by EPHI and MoH now aims to clarify the roles and responsibilities of different stakeholders (33).

Insufficient clarity on the roles of different coordinating organisations and teams also hindered the COVID-19 response in Ethiopia. There were several coordination structures with overlapping mandates and duplication in activities. For example, coordinating teams linked to the Ministry of Peace (MoP), FMoH, EPHI, NDRMC as well as city administrations and civic associations were all involved in resource mobilisation. Insufficient clarity on roles and coordination among these bodies led to fragmentation and duplication in resource mobilisation. For example, similar requests were submitted by different agencies to the same donor, there was a lack of shared and complete information on the quantity or type of resources donated, and there were difficulties in resource allocation and distribution (22). There were also overlaps in the roles of different teams coordinating different response pillars (for example, case management, IPC, surveillance, and RCCE), leading to duplication of effort (22).

As well as avoiding overlapping mandates, **coordination bodies need a sufficiently wide mandate for all relevant shocks**. In Kenya, the new county institutions, such as the Disaster Management Committees and Disaster and Humanitarian Coordination Directorates, are designed to support a multi-hazard response. However, the National Drought Management Authority (NDMA) tends to be stronger and so often provides leadership for county coordination bodies (for example, acting as de facto chair of the County Steering Group). Shocks such as floods and disease outbreaks fall outside NDMA's official mandate; this contributes to a focus on droughts in county disaster management plans and gaps in preparedness for other shocks (28).

4.3   Sufficient authority for coordination bodies

The **authority of coordinating institutions affects their ability to convene other agencies and ensure effective response**. As above, the Kenya NDMA has played a leading role in coordination. However, the implementation of disaster management and response plans depends on county line ministries (for example, agriculture and health). The NDMA has no authority over line ministries, which some stakeholders felt reduced implementation of agreed plans (28).

Similar issues are seen in Ethiopia. The status of the National Disaster Risk Management Commission (NDRMC) and its position within the government structure have changed over time, affecting the NDRMC's ability to effectively coordinate emergency responses across government (23,34). The NDRMC was originally established in 2015 as an autonomous body and legal entity under the Office of the Prime Minister, with a remit to coordinate emergency responses across relevant government and development agency institutions, and to ensure

disaster risk management was mainstreamed across government ministries and departments. This autonomous position accorded the NDRMC increased status compared to its predecessor, the Disaster Risk Management Food Security Sector, which was under the Ministry of Agriculture (MoA), and consequently strengthened its convening and coordinating authority. Together with significant support from humanitarian partners, this status helped to improve the response to the 2015-16 El Niño drought. After 2018, the NDRMC was absorbed under the newly-created MoP. As a department within a ministry, the NDRMC can only promote its policy objectives through the Minister and has only an indirect relationship with the higher-level National Disaster Risk Management Council chaired by the Deputy Prime Minister. The new structure also means that the NDRMC is not regarded by other ministries as an equal partner. This reduces the NDRMC's coordinating authority with line ministries, which in turn hinders the NDRMC's capacity to promote DRM mainstreaming across government and affects coordination for preparedness and response. For example, insufficient authority over line ministries has made it harder for the NDRMC to access and collect early warning data from subnational levels.

A further example of these structural issues comes from Nepal. The current NRA is a separate institution with frequent and direct access to the Prime Minister and the Council of Ministers. There are challenges in coordination between the NRA and other ministries; for example, the NRA has struggled to mobilise government staff from different ministries, and relies on the Ministry of Finance to disburse funds. However, Prime Ministerial oversight of NRA management meetings has helped the flow of funds and provided high level support for decisions. Policies for establishing the new NDRRMA specify that it should work through the Ministry of Home Affairs to contact other ministries, including the Ministry of Finance, cabinet and other key agencies. There were concerns among stakeholders that this structure would limit the NDRRMA's mandate and ability to collaborate across ministries to ensure an effective response (43).

4.4   Adequate capacity of coordination bodies

Organisations tasked with coordinating shock preparedness and response need adequate capacity, including technical and political skills, sufficient staff, and other resources. Examples from different countries indicate the **influence of capacity** at national and subnational levels, and in health and other sectors, on the strength of coordination.

The **influence of adequate capacity among national coordination bodies** is seen in several countries. In Nepal, the NRA has had insufficient human resource capacity because staff are seconded from line ministries and all positions are temporary. This arrangement brings high turnover that affects institutional memory, and it has also contributed to a lack of coherence and complementarity in skills. The secondment structure also hinders the development of rewarding career paths within the NRA that would attract high calibre staff and brings hierarchical issues that affect motivation: an individual's job level in the parent ministry is sometimes higher than their position in the NRA, bringing a feeling of demotion and exclusion from senior decision-making. Previous experience in Nepal also indicated the **importance of political skills** among the leaders of coordination bodies, and sufficient credibility of these

leaders with the wider government bureaucracy, to ensure they have the capacity to win support and cooperation from staff and other ministries (43). Based on earlier experiences in Nepal and elsewhere, reviews to inform the new NDRMC also indicated the value of **flexible institutional capacity**, with a permanent core structure that can expand as needed for disaster response, including through additional staffing (43).

In Ethiopia, the NDRMC has skilled technical staff, but there are concerns about experienced staff leaving, and insufficient numbers of skilled personnel to provide technical support to line ministries for DRM mainstreaming and to monitor policy implementation. **Specific technical skills are also needed to manage different types of shock**. The NDRMC's historical strength has been with drought response. A changing humanitarian environment, particularly increased conflict and displacement and more recently the COVID-19 pandemic, requires new skills and a different technical response (23). NDRMC **capacity is also strained by multiple concurrent emergencies**; for example, resolution of the El Niño drought and response to the Indian Ocean Dipole drought in south-eastern Ethiopia at the same time as the 2017-19 Gedeo and West Guji conflict and displacement crisis (23,34). Similarly, early NDRMC engagement in the COVID-19 response was affected by concurrent work on a desert locust plague, major floods, and conflict-induced displacement (23).

Capacity is also needed for subnational structures, and gaps in skills and staffing, budgets, communication networks, and other infrastructure have hindered subnational coordination. In Nepal, decentralisation has increased the role of subnational government in disaster management. Local governments are relatively newly established and still building organisational capacity, and this is seen in capacity for disaster management. Many local authorities have established or begun developing EOCs, but a lack of human resources, equipment and financial capacity means EOCs have limited ability to ensure effective coordination (45).

Subnational human resource capacity has affected coordination of the COVID-19 response. In Pakistan, coordination for COVID-19 was assisted by the availability of trained focal points in provincial coordination bodies and departments (such as the Disaster Management Agency and COVID-19 expert advisory group). However, there are gaps in province capacity and technical expertise for emergency preparedness, response and coordination (25). In Ethiopia, the federal PHEM centre at EPHI is well staffed, but capacity at subnational levels is more varied. For example, in Sidama gaps in human resources to manage public health emergencies reduced the functionality of regional and woreda Emergency Coordination task forces and EOCs for the COVID-19 response. A new regional administration and limited training contributed to a shortage of trained and experienced staff, with insufficient technical skills and experience in emergency coordination. A lack of dedicated staffing at subregional levels also hindered coordination and contributed to delays and insufficient harmonisation of activities, for example, with RCCE (36). In Oromia, at regional level, the availability of trained staff assigned to the emergency response supported the early activation of the EOC, communication across levels, and the development of plans to support coordination. However, insufficient staffing, budget, infrastructure and experience at zone and woreda levels

contributed to a lack of subregional EOCs and hindered coordination (24).

Similar human resource capacity issues affected subnational coordination of the COVID-19 vaccine rollout (26). Where subnational capacity to support coordination structures was stronger, this helped rollout. For example, interviews in SNNPR reported coordination as being largely effective, with a functional task force at all levels and regular communication between different levels of subnational and national government (woreda, zone, regional government and FMOH). However, across Ethiopia some regional and zonal working groups for the rollout were not fully functional, partly due to long-standing shortages of government and immunisation programme staff, which contributed to limited time or capacity to participate in coordination fora. A lack of development agency support in some locations also reduced capacity. Weak functioning of subnational working groups reduced their capacity to coordinate with national structures, delayed sharing of information, and hindered vaccine rollout in some regions. Limited government time, sometimes due to a high volume of meetings, also affected government availability to meet and coordinate with partners for the vaccine rollout in South Sudan and South Africa.

The strength of communications infrastructure also affects subnational coordination. In Ethiopia gaps in internet access and information technology at regional or lower levels, as well as phone outages, hinder emergency coordination and information sharing between regional, woreda and federal government and with regional development agencies (46). During COVID-19, weak IT systems hindered the collection of information from lower levels and the effective use of virtual meetings (46). Where IT systems were available, for example in SNNPR and Oromia, this enabled information sharing and coordination across stakeholders (24,42). In Oromia, internet availability facilitated weekly virtual meetings with leadership in all zones and towns, which helped in areas such as identifying supply gaps and distribution needs (24). In South Sudan, unreliable internet access is further compounded by disruption to road networks, which limited subregional attendance at physical meetings (26).

Adequate funding is a further important aspect of capacity for coordination, partly relating to allowances associated with participation in coordination meetings. In Kenya, strained county health budgets hinder coordination mechanisms, for example when nutrition coordination meetings cannot be hosted due to a lack of funds (28). A lack of budget has also affected development agency coordination with local government in South Sudan, due to the costs associated with workshops (26).

Capacity is needed not just within the health sector, but across sectors given the importance of multi-sector coordination and action. In Ethiopia, experiences during COVID-19 showed that several government ministries and departments lacked staff with training and experience in public health emergency management and coordination, and did not have established structures to support disaster management. This contributed to difficulties in cross-sector coordination for the COVID-19 response, and increased reliance on the health sector (22). A lack of clear structures for disaster management within different ministries has also affected preparedness and response to other shocks. Without an established structure, relevant

activities are fragmented across different ministry sections. This hinders coordination with other ministries and agencies; for example, decisions on sharing data or joint planning can be delayed by the need to pass through different institutional hierarchies within each ministry (34).

Development agencies can support the capacity of coordinating structures; for example, they have supported communications infrastructure in some regions of Ethiopia (46). However, weaknesses in development agency support can limit the effectiveness for capacity development. In Ethiopia, development agency support to the NDRMC has often involved short-term technical assistance. This temporarily boosts capacity, but technical assistance staff can lack personal investment in the NDRMC, and their short terms of appointment hinder sustainable improvement and institutional learning (23). In Pakistan, development agencies have provided capacity building for the Province Disaster Management Agencies and Health Departments, but capacity has not been sustainably strengthened, with insufficient ownership and gaps after donor funding ends (25).

4.5   Effective government leadership

Senior government leadership supports coordination, across government and with other stakeholders. As with capacity, leadership is required at different levels and across sectors.

The **value of national government leadership was seen with the COVID-19 response**. In Rwanda, the government leads coordination for vaccine rollout, and asks for support in specific areas, which helps to harmonise development agency engagement (26). In Pakistan, the Prime Minister's political ownership of the National Command Operation Centre (NCOC) established for COVID-19 supported the NCOC's effectiveness and contributed to the engagement of other government sectors and departments (25). Similarly, in Ethiopia the National Ministerial Committee established for COVID-19 is accountable to the Prime Minister, the Minister of Health chairs the overall COVID-19 coordination group, and senior government leadership provides close follow-up and support for activities (22,26). This high-level leadership and engagement helped to support both cross-sector collaboration within government, and coordination with development agencies and subnational levels, including through the early activation of the PHEOC and creation of multi-stakeholder coordination fora (22).

The **significance of leadership for coordination is also seen at subnational levels**. In Pakistan, leadership from some provincial Chief Ministers contributed to examples of effective cross-sector coordination, such as the involvement of the district administration, police, and government departments on health, education, water, sanitation and others in quarantine facilities (25). In Kerala, India, leadership from the Chief Minister to establish a platform for discussion across ministries helped to ensure the engagement of other state ministries, with all departments (not just the Ministry of Health) instructed to focus on managing COVID-19 (38). In Ethiopia, the strength of subnational leadership during the COVID-19 response has varied between regions, administrative levels and over time. Where regional political leaders and senior regional government were actively engaged, coordination was supported. For example,

in Oromia commitment from the Regional Health Bureau leadership and political leaders facilitated the early establishment of the EOC, coordination across sectors, links between the regional EOC and lower levels, and engagement with stakeholders, such as health professional associations (24). In Sidama, support from political leaders and decision makers at regional and lower levels helped to mobilise human resources, including to fill gaps in regional and lower-level emergency coordination platforms, so strengthening coordination capacity (36). Where political leaders were less engaged, this made information sharing, communication and coordination of the response less systematic or streamlined (22). In Oromia, political engagement and high-level leadership declined as growing political instability took leaders' attention. The resulting leadership gap contributed to a reduction in stakeholder engagement, including reduced involvement of departments beyond health, interruption of coordination fora, and overall weaker coordination, with the duplication of some activities (24). Below the regional level, weaker leadership from the zone level and other local political leaders contributed to insufficient coordination with development agencies (24). Similarly, in SNNPR low engagement of subregional political leaders contributed to weaker coordination (42).

As shown by the examples above from Ethiopia and Kerala, high-level political leadership can support the engagement of different government sectors. However, effective multi-sector coordination also requires **sufficient leadership within different parts of government, including ministries beyond health**. A tendency for other ministries to rely on the Ministry of Health or national coordinating bodies can reduce effective cross-sector coordination for responses. This is seen in Ethiopia, at national and subnational levels. National policy designates lead institutions to implement DRM for different hazards; for example, the MoA for agriculture-related emergency management, the Ministry of Water, Irrigation and Environment for floods, the MoP for conflict-related emergencies, and the MoH for health-related emergencies. However, partly due to a lack of ministerial leadership and commitment in other sectors, there has been insufficient mainstreaming and attention to disaster management across ministries and agencies, particularly beyond the MoH, with limited development of DRM plans and structures and a tendency to rely on the NDRMC secretariat. This contributes to a lack of focus on DRM and the capacity gaps noted in 4.4, and hinders coordination. For example, a lack of clear responsibility and structure in some ministries weakens effective participation in multi-sector coordination fora, including through irregular attendance, participating organisations sending different people for each meeting (reducing understanding and effectiveness), and delegated personnel considering DRM and coordination as a secondary responsibility and not being held accountable for activities (34). **Leadership across relevant sectors is also required for effective subnational coordination.** For example, in Sidama the limited engagement of political leaders in different government sectors hindered cross-sector collaboration in the COVID-19 response (36).

Reports on the COVID-19 response indicate the **need to balance high-level political or government leadership with sufficient technical input**, including from outside government. In Ethiopia, health professional associations, partners, technical government staff and others who can provide technical input were part of coordination structures (22). For example, the coordination of vaccine rollout was initially managed by the FMOH, but the government later

moved to work with the wider, existing immunisation structures that could provide technical input (for example, the NITAG and EPI TWG) (26). In contrast, experience of early COVID-19 vaccine rollout in South Sudan illustrates the difficulties experienced if government leadership is not balanced with sufficient technical input and stakeholder involvement in decision making. A distribution strategy agreed by the government and development agencies for the National Vaccine Deployment Plan was changed by the government just before submission of the plan, and without consultation, including switching from the previously agreed use of the routine immunisation system and outreach to delivery through three fixed hospital sites in Juba. This change required substantial new planning, which caused delays, and also reduced access and uptake, contributing to a need to return vaccine doses to COVAX. A change in government decision-making positions and increased collaboration with development agencies and consideration of technical guidance later helped to resolve the situation, with a revised and more effective distribution strategy (26). Political leadership also needs to be balanced by technical input from within government: in Sierra Leone, MoHS staff were concerned about decisions being made by political leaders with insufficient input from those with a technical and medical background, and they saw this as reducing the effectiveness (21).

4.6   Use of existing coordination structures and relationships

The use of existing coordination structures to support shock response can enable coordination, by providing established systems and capacity, relationships and ways of working. This was seen with support for COVID-19 vaccine rollout (26). In Ethiopia several committees and working groups used for COVID-19 coordination were part of routine immunisation programme structures, including the NITAG and TWGs on supply and logistics and communications. The same organisations and individuals who were part of these routine structures were also involved in COVID-19 vaccination, so using these existing structures was more efficient and made use of their established strength. Using routine immunisation structures also helped clarify roles for COVID-19 vaccination. Development agencies and the government had established roles and focus areas for routine EPI (such as leading on communications or supply chains), and these roles were retained and transferred to the COVID-19 vaccine rollout, such that role division was clear from the start (at least nationally). For the broader COVID-19 response, existing systems and platforms for coordinating development agency resources helped effective identification, mobilisation and allocation of funding. In addition, using the existing PHEOC structure, previously activated for Ebola, to coordinate the COVID-19 response enabled rapid PHEOC activation (22). The value of reactivating or building on earlier structures was also seen at the subnational level, including the use of PHEOC structures established for polio outbreaks to support the COVID-19 response in Sidama (36).

In contrast, **newly created structures may need additional support** to build capacity. In Ethiopia, some new TWGs were created for the COVID-19 vaccine rollout, including TWGs on planning, surveillance, and monitoring and evaluation . These new TWGs have generally been weaker, for example meeting less frequently, partly due to a lack of established government capacity to engage (26). Where new structures are created, this can also create uncertainty on roles in relation to existing structures. For example, in South Africa there has been uncertainty

about the respective roles of the routine NITAG (known as the National Advisory Group on Immunisation in South Africa) and the new Ministerial Advisory Committee created for the COVID-19 response (26).

Beyond formal structures, **pre-existing relationships also support coordination**, providing a basis for trust and communication that helps discussions on roles and alignment. With the COVID-19 vaccine rollout, these existing relationships helped coordination even in the absence of clear formal communication structures (26). For example, in Rwanda familiarity between development agencies helped organisations to work together closely before roles were formally agreed. In South Africa, existing networks between subnational development agency staff, other national and province government and agency stakeholders provided a channel to help resolve difficulties, including those relating to potential role duplication. In South Sudan, a development agency's existing contacts with the subnational government provided trust and helped collaboration, access to information, and problem solving. Other examples come from Kerala, where existing links between the government and community-based organisations supported partnership working for the response to COVID-19 and other shocks, such as floods in 2017 and 2018 (38).

4.7   Using previous learning to support effective coordination

Partly linked to the use of existing structures, **learning from previous shocks** can support effective coordination. Experience in previous shocks can highlight the value of partnership and so encourage coordination efforts, and also develop mechanisms for coordination or lessons on effective coordination approaches.

In Kerala, experience with a series of shocks (including floods and the 2018 Nipah virus outbreak) gave the government knowledge of the value of citizen engagement and helped to develop mechanisms to convene other government departments and to collaborate with external stakeholders, which then supported the coordination of the COVID-19 response (38). In Sierra Leone, experience from Ebola contributed to the swift activation of coordination structures and systems for COVID-19, such as the use of the Ebola Emergency Operations Committee. Learning from Ebola also contributed to active community engagement and the involvement of traditional leaders in the COVID-19 response (20,21).

At subnational level in Ethiopia, previous experience of emergency coordination using an incident management system in Sidama and SNNPR facilitated the establishment of the PHEOC and task forces for COVID-19 coordination, which in turn supported engagement with partners and other stakeholders (36,42). Regional governments have also used learning from past droughts to support coordination with nutrition emergencies, including holding more frequent coordination response meetings and creating different sector task forces (23). Where government staff had limited experience of emergency response coordination, this hindered coordination between sectors and levels for COVID-19 (40).

While learning can support effective coordination, **several factors can limit identification and use of lessons from previous emergencies**. In Ethiopia, the NDRMC has used lessons from

previous years to strengthen coordination of drought relief, but more extensive learning has been limited by several issues: the lack of opportunity to reflect, as crisis rapidly followed crisis; limited opportunity to absorb lessons from evaluations or reviews; coordination structures often becoming dormant after the emergency response is concluded (see 4.8); and a lack of leadership to act on learning (23). At the subnational level, staff turnover and poor documentation were noted as hindering learning for the development of effective coordination systems in the Somali region (23).

4.8   Ongoing coordination pre-crisis

Ongoing coordination before and after shocks is needed to support preparedness and ensure a more effective response as well as recovery. In several countries, coordination structures only became active during emergencies, slowing responses and limiting preparedness activity.

In Kenya, County Steering Groups for disaster management are supposed to meet monthly, but meetings are irregular outside emergencies and tend to only take place when there is a drought. This delays discussion of early warning bulletins and prevents the anticipatory planning that is needed given increased regularity of climate shocks (28). Similarly in Pakistan, cross-sector collaboration between government departments and development agencies is limited to emergency situations rather than pro-active advance planning (25).

In Ethiopia, multi-sector coordination is also stronger for response than for ongoing preparedness or later rehabilitation. The DRM Council, chaired by the Prime Minister, is the highest policy and oversight body and brings together lead sector agencies. However, the council only meets when there is a major disaster, and the heads of the lead sector agencies are more active for response than for pre- and post-disaster phases. Within lead agencies, the sectoral task force or committee meetings tend to be called only when an emergency arises or when early warning information signals a likely emergency. Sector focal points are temporarily assigned for emergencies, but they return to their usual duties at the end of the response, and are not directly accountable and evaluated for their involvement in emergency management (23). This lack of a permanent, ongoing structure delays the response. It also limits recovery capacity and opportunities to learn from the response, as the committee becomes inactive soon after the response ends (33).

4.9   Effective information sharing systems

Effective coordination is both supported by and contributes to timely, open and accurate information sharing. This requires both systems for information collection and sharing, and the willingness to share information.

Effective systems for information sharing require hardware, skills, and incentives for frontline staff to collect accurate information, as well as coordination. Information sharing is sometimes hindered by the presence of multiple different data systems and communication channels. Gaps in all of these areas were seen in Pakistan: accurate information from lower health system levels is limited by insufficient technology and connectivity, insufficient administrative capacity, unfamiliarity with information systems, incentives related to self-reporting, and gaps

in the integration and coordination of data across public, private and social sectors (25). Without a coordinated information system, different agencies use different reporting systems, and there are discrepancies in reported data. This hinders identification of affected populations and vulnerable groups (25).

Multiple, parallel information systems have also affected shock response in Nepal. The National Emergency Operation Centre (NEOC) has different databases, supported by different agencies, with inconsistent data. There are also gaps in staff skills for accurate data collection. This hinders effective information collation and sharing for emergency response. For example, following the 2015 earthquake, the lack of an effective database made it difficult to track recipients and to estimate loss and damage (43). In Ethiopia, information sharing is hindered by a lack of clear and consistent communication channels. Disaster management structures vary between regions, and this contributes to variation in channels with which to share information with the federal government; for example, different regional bodies share information with a range of national line ministries, the National EOC, or other disaster management task forces and councils. Regional staff are also sometimes unclear as to who they should communicate with at national level. As a result, there are multiple information channels, leading to misinformation and confusion among coordination agencies and partners (46). Similar issues are seen within regions; for example, in Tigray information comes from several sources and is not consolidated (46).

The importance of **willingness to share accurate information** was seen in several contexts. In Ethiopia, early warning information underpins the annual Humanitarian Requirements Document and Response Plan. However, information is collected by different ministries and government agencies, there is a perceived reluctance among these agencies to share data, and, as noted in 4.3, the NDRMC's lack of authority over line ministries hampers its ability to access and collate information, including from subnational levels. One reason early warning information is sometimes withheld or manipulated is that this information plays a role in determining budgets and resources. For example, tension over early warning information between the NDRMC and the MoA (which manages the Productive Safety Net Programme (PSNP)) reflects concern about the size of the PSNP caseload and the affordability of safety nets. Increased autonomy for regional administrations since 2018 also means that production figures and beneficiary numbers produced by the NDRMC are more regularly disputed. In addition, resources to the regions are affected by population size, and under- or over-estimates of population figures reduce the accuracy of needs assessments. Political concerns over a perception of Ethiopia as an aid dependent 'famine country' have also led to the late publication of early warning findings. One example comes from the 2017-19 Gedeo/West Guji displacement crisis, where IDP numbers were sometimes inflated to attract additional resources or understated to protect political image. These tensions reduce the effectiveness of the early warning information, and both reflect and contribute to weaknesses in coordination (23). The effects on coordination were reported in an evaluation of a NGO coalition project for rapid emergency response: gaps and delays in the provision of information from the subregional to regional levels, delays in reporting crises from regional government to the federal level and other stakeholders, and discrepancies between woreda and regional data

regarding the number of people in need meant that information was late and uncertain, which hindered a timely and coordinated NGO response (32).

The **role of transparency** in information sharing was seen with the COVID-19 vaccine rollout in Rwanda and South Africa. In both countries, there have been some gaps in information from government, including difficulty in accessing health management information system data in Rwanda (for example, on coverage of priority groups), lack of budgetary information on resources provided and funding gaps in both countries, and in South Africa a lack of information on vaccine purchasing agreements. This lack of shared information on progress, costs, and resources could hinder the effective coordination and prioritisation of development agency support (26).

Effective information sharing also requires careful handling of uncertainty. This was seen with the sharing of COVID-19-related information in South Sudan. One development agency called a coordination meeting early in the response, when there were substantial gaps in information about what action would be needed. The lack of clear information was seen as making this early coordination effort ineffective, with insufficient data and understanding to plan activities. Uncertainty in vaccine arrival timelines and distribution needs also affected coordination, including between the lead development agency and distribution partners. This in turn increased the workload for distribution partners and brought inefficiencies in vaccine rollout. However, the provision of information needs to avoid suggesting more certainty than warranted: vaccine arrival dates communicated by the lead agency were often followed by repeated delays, creating a risk of distrust among other agencies and the public that could damage coordination (26).

4.10 Effective cooperation and communication between national and local government

Cooperation between national and subnational levels is a key part of effective coordination. There were examples of both strong and weak coordination between levels, affecting preparedness and response. In Ethiopia, collaboration and support from national levels helped to strengthen subnational coordination and the regional COVID-19 response. In particular, the functionality of regional PHEOCs was assisted by technical and financial support from the national EPHI and FMOH, including the provision of guidelines, and by high levels of political commitment and engagement from the national government (24,35,36,42). MoH and EPHI guidance on mobilising volunteers also contributed to regional government partnerships with wider civil society for the response (42). In Sierra Leone, district coordination with national government bodies was effective in some districts. In Kono, the DHMT has played an active role, and the DHMT and nationally-assigned Office of National Security representatives were effectively collaborating and sharing roles for the COVID-19 response (37). National government sought to understand what actions were being taken by the district and to provide additional support where it was needed, rather than overriding or replacing DHMT activity (37). However, emergency response decision-making for COVID-19 and the allocation of resources was largely centralised in Freetown, potentially delaying responses at the district level (21).

Effective national-local coordination is affected by a range of issues, including capacity gaps at each level, a lack of coordination among central government departments, weaknesses in coordination fora, and political tensions. Several of these issues affect coordination between levels in Nepal, where ongoing decentralisation increases the need for strong coordination with local government. However, coordination is weakened by the subnational capacity gaps discussed in 4.4, such as a lack of human resources and institutional structures, and by insufficient coordination among federal agencies at the national level, as well as by gaps in the functionality of structures designed to support coordination between national and local levels. In relation to federal agencies, there is a lack of coordination between national ministries and departments, such as agriculture and health, and a lack of clarity on the role of these federal agencies in supporting subnational government, partly reflecting relatively recent decentralisation. This hinders coordination and communication with local government, and contributes, for example, to parallel instructions to local government from different national agencies. In relation to cross-level coordination structures, fora such as the District Disaster Management Committee could support national-local coordination, partly as the committee chair is a federal government official (the Chief District Officer, (CDO)), and members are politically-elected local government leaders. However, an effective role for this committee is hindered by concern among subnational government leaders that CDOs exert central government power and side-line local government. The Disaster Risk Reduction and Management National Council also provides a potential forum for coordination between federal and provincial levels as provincial Chief Ministers are members, but meetings are ad hoc and tend not to discuss inter-governmental coordination (45).

Capacity gaps have also affected coordination with federal levels in Ethiopia, with coordination hindered by a lack of personnel trained in emergency coordination and limited internet connectivity in some regions, as well as the variation and uncertainty of communication channels discussed in 4.9 (22,46). Functionality of national support systems, and openness to this support from subnational levels, have also affected coordination: a regional support team was established for COVID-19, but the team lacked clear roles, responsibilities and guidance, and their work was also hindered by some resistance to the team from regional staff (22).

Tensions between national and local levels have also been seen in other countries. In Pakistan, there was friction between national and provincial governments in the COVID-19 response, with open disagreement regarding some provincial policies (such as a more complete lockdown in Sindh). This tension partly reflected wider political systems, with different political parties in government in different provinces and at federal level (39). In Kenya, devolution strained relationships and weakened coordination between county and national levels, within the MoH and wider government. For example, structures for reporting county disaster activities to the national MoH are unclear, some roles are duplicated between levels, and there are tensions in the relationships. Insufficient collaboration is thought to delay the release of national government funding for responses to drought or other emergencies (28). Gaps in coordination and cooperation were also seen with the early COVID-19 response, with limited integration of subnational priorities into national response plans, and inadequate

communication from national to county levels regarding processes for planning, funding, procurement and other aspects of the response (29).

4.11 Development agency alignment in support of coordinated approaches

Effective coordination is supported by development agencies working through coordination structures, agreeing roles in consultation with each other and government, and working collaboratively. These approaches support the sharing of information on activities, clear roles, and effective targeting of agency support.

The effects of **using agreed coordination structures** are seen in Ethiopia: the alignment of development agency contributions is affected partly by the strength of the cluster systems designed to support coordination, alignment of this system with government, and development agency alignment with the cluster system. The nutrition cluster is led by the Emergency Nutrition Coordination Unit (ENCU). This platform is housed in the NDRMC and has a technical lead from UNICEF. ENCU collects early warning information and coordinates the work of four UN agencies and 15 NGOs. The health cluster, which supports the provision of essential health services and supplies for IDPs and other vulnerable groups, is generally seen as weaker and less embedded within government. More limited government engagement with the health cluster reduces the government's ability to use the cluster system to influence the allocation of development agency funding. In addition, development agencies do not always use the cluster system, and channel some funds directly to project activities rather than via systems for harmonised donor funding, such as the Ethiopia Humanitarian Fund. This contributes to duplication in the allocation of funding and uneven distribution of resources (33).

Experience with COVID-19 vaccine rollout shows the importance of **agreement on roles**, including with the subnational government. In Ethiopia, the national government felt one agency's support was fully in line with government needs. However, a regional government official felt that development agency activities were largely set at international or national levels, rather than being based on assessment of local needs, and that some agencies acted without consulting other stakeholders. This lack of alignment affected vaccine rollout, and the regional official urged more bottom-up needs assessments and joint planning with the subnational government and across agencies to ensure clarity and alignment of roles (26).

The COVID-19 vaccine rollout also highlighted the **need for a collaborative approach among development agencies** (26). In Ethiopia and Rwanda, there was joint planning across government and agencies, with aligned priorities and clear division of roles. This coordination was supported by collegial relationships, with agencies reported to work together effectively, without "unhealthy competition" (development agency in Ethiopia) in Ethiopia. However, while collaborative relationships and trust supported alignment and role division, they are insufficient when the response is more complicated. In Rwanda, agencies reported that coordination had relied in part on good will, and more formal systems to clearly delineate roles and share information were needed as the volume and diversity of vaccine donations increased (26). In contrast, development agencies in South Africa, and to a lesser extent South

Sudan, reported that competition among agencies weakened coordination for vaccine rollout. For example, in South Africa some agencies started working in new areas where others were already working, which contributed to duplication in partner support (26).

Experience from Nepal suggests that **coordination between government and development agencies can be hindered by a lack of coordination among each group**, with multiple government structures and multiple separate development agency activities (43). NGOs discussed difficulty in coordinating with government due to numerous agencies and individuals, from local to national levels. The National Reconstruction Authority (NRA), meanwhile, struggled to coordinate with development agencies due to a high number of different agencies working on diverse issues and through different funding mechanisms (43).

An example of effective efforts to support coordination among agencies comes from Ethiopia. A multi-NGO rapid response mechanism (SWAN) aimed partly to strengthen coordination among consortium members and with local NGOs. The consortium has also coordinated with donors, local and federal government, and other stakeholders, including through the cluster system. Regular coordination meetings and the development of well-established, functional partnerships reduced competition among NGOs, encouraged better collaboration, and strengthened the emergency response; for example, through faster, more widespread and more efficient provision of relief. This joint working has also created partnerships that can support future responses and provides an example for future collaboration (33).

4.12 Gender equity and representation of women in coordination structures

Shocks often disproportionately affect women and girls. Preparedness and response need to consider gender roles and the different needs of men, women, boys and girls, and coordination and decision-making structures should include women and girls, both as a right and to inform decisions (29). The reports provided **limited information on the consideration of gender in coordination systems**. However, at an early stage in the COVID-19 response, there were indications of women being underrepresented in coordination structures: in Kenya, there were six women in the 21-person NERC on COVID-19 (29%), in Pakistan there was one woman in the 13-person Emergency Core Committee (8%), and an analysis of four district-level COVID-19 task forces in Uganda found that women constituted 22.5% of members on average, and that men held the most influential positions.

There were also indications of **insufficient consideration of gender in coordination with other stakeholders** for the COVID-19 response. In Sierra Leone, the government worked effectively with traditional leaders in Kono district. However, traditional women's leaders, called Mammy Queens, were not represented in district decision making in Kono, and the chiefs who were represented were all male (37). A similar lack of women's involvement in stakeholder engagement was seen in Bangladesh, where women's rights organisations reported being left out of local and national consultations on the COVID-19 response (29).

5   Conclusion and recommendations

This report has highlighted the importance of effective coordination and partnership across government and with other stakeholders, and a set of issues that enable or hinder coordination. These issues can also be considered as characteristics of effective coordination systems as well as enablers of effective coordination.

Overall, the findings highlight the importance of structural issues, including the availability of coordination fora, ongoing coordination structures that function before and after shocks, the mandate and authority of coordinating bodies, and streamlined information systems; the capacity of organisations with a role in coordination, including staff, skills and infrastructure, across relevant sectors and at different geographic levels; and political considerations and incentives, including leadership from government and collaborative alignment by development agencies.

The findings support the importance of key components indicated in the ReBUILD for Resilience framework. In particular, they provide examples of the following framework areas:

- Inclusive governance – involving coordination across government sectors and with other stakeholders, as well as attention to gender representation.
- Dedicated leadership – including high-level national leadership, subnational leadership and leadership in different sectors.
- Distributed control – including an appropriate balance between national and subnational governments.
- Accountability mechanisms – including in relation to the authority of coordination bodies and associated sector accountabilities.
- Learning – from previous shocks, and with systems and time to support reflection and action on learning.
- Human, physical and financial capacity – including areas such as skills, adequate staffing and communication networks.
- Strategic resource use – including partnership with different stakeholders (such as development agencies, the private sector and universities) to mobilise in-kind and financial resources for shock response.
- Information systems – including streamlined databases, and the motivation and capacity to share accurate information.
- Routine planning – including permanent coordination systems that function to support preparedness and recovery as well as response.
- Trust, social networks and collaboration – with collaborative approaches and relationships among stakeholders supporting coordination systems.

5.1   Recommendations

Based on the findings, this section proposes a set of considerations for supporting effective coordination and partnership. Many recommendations are broad, and specific approaches would need to be tailored to specific constraints and contexts, as well as via further evidence and research.

Coordination structures:

- Functioning coordination structures and fora for stakeholders to meet are needed, with regular and effective meetings.
- Coordination structures need to involve all relevant government sectors, including sufficient health sector representation, but also the involvement of other sectors such as water or agriculture.
- Structures need to involve stakeholders beyond government, including development agencies, universities, the private sector, and community leaders.
- Coordination structures need gender balance in representation and adequate expertise on gender relations and roles.
- Bodies responsible for coordination need clear roles to avoid overlapping remits, and mandates that are sufficiently wide to support responses to the range of relevant shocks.
- Coordinating bodies need sufficient authority to convene relevant actors and ensure the implementation of agreed plans. Positioning directly under the president or prime minister (rather than in a ministry) can support this authority.
- Coordination structures need to function on an ongoing basis - before shocks occur to enable pro-active anticipatory planning, and after shocks to support learning and recovery.
- Using existing structures can support coordination during shocks, by providing established organisational arrangements, roles, relationships and ways of working; new structures may require additional support.
- Organisational hierarchies need to support streamlined coordination with other sectors and agencies, enabling rapid information sharing and decision making.
- A unified contact point or forum for development agencies on the one side, and for government on the other, could ease coordination between multiple development agencies and government bodies.
- Two-way coordination and communication structures between national and subnational levels are required, such as clear systems for reporting information upwards, and national government responsiveness to district needs.

Capacities:

- Organisations tasked with coordinating shock preparedness and response need adequate capacity, including political skills, technical expertise to address different kinds of shock, sufficient staff, infrastructure, and other resources, including funding for coordination meetings where required. Depending on capacity gaps, this may require action in areas such as staff retention or financial resources to build infrastructure.

- To strengthen capacity, organisational systems need to support learning from previous experience, considering issues such as time for reflection, leadership to act on learning, and the retention and exchange of organisational learning.

Leadership and motivation to coordinate:
- Senior government leadership can support coordination in a number of ways, including by promoting coordination across government sectors as well as with other stakeholders. Leadership is required at national and subnational levels, and in different government sectors.
- Political leadership needs to be balanced with technical input, both from within government and from other stakeholders.
- Political, organisational and individual incentives need to support coordination, for example in relation to transparent and accurate information sharing and staff commitment.
- Regular communication and reporting across levels can help to promote effective subnational government leadership and accountability.

Development agency roles:
- Development agencies need to ensure early engagement with government and joint discussion on priorities and areas for support, including at subnational level.
- Development agencies need to work collaboratively rather than competitively, including focusing on their comparative advantages.
- Consistent use of coordination systems (such as the cluster system or pooled funding mechanisms) by development agencies could support alignment and coordination.

5.2   Areas for further research

This paper was an initial analysis based on existing reports. Further work, including discussions with relevant country research teams and stakeholders, could establish more detail on the findings and provide updated information based on recent changes in each country.

The paper raises several areas where further evidence could support understanding of effective coordination systems. These areas include:
- The role of the private sector, include private health providers and other private sector organisations (such as manufacturers) in coordination systems, including their contribution to and influence on decision making.
- The views and experiences of non-health ministries, to understand their motivations and capacity for cross-sector coordination.
- The political economy of coordination structures, including understanding areas such as decisions to establish new structures (rather than the use of existing structures) and decisions on membership.
- The balance between high-level national government leadership and technical leadership, including how presidential control affects coordination.
- Effective structures and formats for coordination fora, such as optimal constitution and

size.

- Gender equity in coordination, including representation of women in decision-making structures, and strategies for coordination that have supported an inclusive response.
- The influence of funding systems on coordination, including the use of pooled funding.
- Variation in coordination systems, strengths and weaknesses between different types of shock, including understanding whether and when shocks are framed as 'health' emergencies, and how this affects coordination and representation of health and other sectors.

These areas could be considered for future ReBUILD for Resilience research, including synthesising lessons from research by other ReBUILD partners or the wider literature, as well as further primary research.

References

1. Witter S, Raven J. ReBUILD for Resilience: resilience framework [Internet]. 2021. Available from: https://www.rebuildconsortium.com/research-themes/resilience-framework-2/

2. Thomas S, Sagan A, Larkin J, Cylus J, Figueras J, Karanikolos M. Strengthening health systems resilience: key concepts and strategies [Internet]. World Health Organization. Regional Office for Europe; 2020 [cited 2022 Mar 28]. 29 p. Available from: https://apps.who.int/iris/handle/10665/332441

3. WHO. Health Emergency and Disaster Risk Management Framework. Geneva: World Health Organization; 2019.

4. Rentschler J, Klaiber C, Tariverdi M, Desjonqueres C, Mercadante J. Frontline: Preparing Healthcare Systems for Shocks from Disasters to Pandemics [Internet]. Washington, DC: World Bank; 2021 Apr [cited 2022 Mar 28]. Available from: https://openknowledge.worldbank.org/handle/10986/35429

5. European Commission. Directorate General for Health and Food Safety. The organisation of resilient health and social care following the COVID-19 pandemic. [Internet]. LU: Publications Office; 2020 [cited 2022 Mar 28]. Available from: https://data.europa.eu/doi/10.2875/158132

6. Blanchet K, Nam SL, Ramalingam B, Pozo-Martin F. Governance and Capacity to Manage Resilience of Health Systems: Towards a New Conceptual Framework. Int J Health Policy Manag. 2017 Apr 4;6(8):431–5.

7. Kruk ME, Myers M, Varpilah ST, Dahn BT. What is a resilient health system? Lessons from Ebola. The Lancet. 2015 May 9;385(9980):1910–2.

8. FCDO. Principles of Health Systems Resilience in the Context of COVID-19 Response. London: FCDO; 2020.

9. Sphere Project, editor. The sphere handbook: humanitarian charter and minimum standards in humanitarian response. Fourth edition. Geneva, Switzerland: Sphere Association; 2018. p. 406.

10. WHO Regional Office for Europe. Review of coordination mechanisms for development coordination in Tajikistan. Copenhagen: WHO; 2009.

11. Health Policy Project. Capacity Development Resource Guide: Multisectoral Coordination. Washington D.C.: Futures Group, Health Policy Project; 2014.

12. UN OCHA. Humanitarian Response [Internet]. 2022 [cited 2022 Mar 28]. Available from: https://www.humanitarianresponse.info/en/coordination

13. WHO. Building a Working Definition of Partnership. Geneva: World Health Organization; 2009.

14. Woodward A, Sondorp E, Witter S, Martineau T. Health systems research in fragile and conflict-affected states: a research agenda-setting exercise. Health Research Policy and Systems. 2016 Jul 21;14(1):51.

15. Blanchet K, Sistenich V, Ramesh A, Frison S, Warren E, Hossain M, et al. An evidence review of research on health interventions in humanitarian crises. London: London School of Hygiene & Tropical Medicine. 2013.

16. World Bank. FCS lists from FY06 to FY21. Washington D.C.: World Bank; 2022.

17. World Bank. FY22 List of Fragile and Conflict-affected Situations. Washington D.C.: World Bank; 2022.

18. INFORM. INFORM Report 2021. Brussels: INFORM; 2021.

19. Pawson R. Digging for Nuggets: How 'Bad' Research Can Yield 'Good' Evidence. International Journal of Social Research Methodology. 2006 Apr;9(2):127–42.

20. Grieco K, Yusuf Y. Sierra Leone's response to COVID-19. Oxford: OPM; 2020.

21. Amara PS, M'Cormack-Hale FA, Kanu M, Bash-Taqi R, Kanu A. The effectiveness of the Sierra Leone health sector response to health shocks: Evidence from the COVID-19 perception survey. Oxford: OPM; 2021.

22. Ministry of Health, Ethiopian Public Health Institute, Oxford Policy Management. Intra-Action Review (IAR) on Public Health Emergency Preparedness and Response to Covid-19 in Ethiopia. Addis Ababa: Ministry of Health, Ethiopian Public Health Institute, Oxford Policy Management; 2020.

23. Gray B, Asmare E. Study to Assess the Effectiveness of the National Disaster Risk Management Commission's Coordination role in recent disasters in Ethiopia. Oxford: Oxford Policy Management; 2021.

24. Oromia Region Health Bureau. Intra-Action Review (IAR) on Public Health Emergency Preparedness and Response to Covid-19 in Oromia Region. Addis Ababa/Finfinee: Oromia Region health Bureau, MoH and EPHI; 2021.

25. Najmi R, Pradhan NA, Ahmed Z, Qidwai M, Hyat S, Khursheed S, et al. Response and Preparedness for Essential Health and Nutrition Services During Disasters in Pakistan. Oxford: OPM; 2021.

26. Gooding K, Webster J, Wiafe N, Kumar V. Real time assessment (RTA) of UNICEF's ongoing response to COVID-19 in eastern and southern Africa: COVID-19 vaccine supply and rollout. Oxford: Oxford Policy Management; 2021.

27. Fortnam M, Hailey P, Balfour N, Sheen K, Lea R. Innovation history of the CMAM Surge approach Towards a shock-responsive health system in Kenya. Oxford: OPM; 2020.

28. Fortnam M, Hailey P, Mbelenga E, Balfour N, Odhiambo S, Odundo E. Climate shock responsiveness of the Kenya health system. Oxford: OPM; 2020.

29. Hillier D, Newton-Lewis T, Nair R, Larsen C. Initial COVID-19 responses in Bangladesh, Kenya, Pakistan, Sierra Leone, and Uganda. Oxford: OPM; 2020.

30. Gooding K, Appleford G, Wiafe N. Evaluation of UNICEF's District Health Systems Strengthening Initiative. Oxford: Oxford Policy Management; 2021.

31. Sabur MA, Sabina N, Khaled A. Assessing the Indirect Effects of COVID-19 on Essential Health and Nutrition Services in selected rural and urban settings of Bangladesh. Dhaka: Oxford Policy Management; 2021.

32. McConnell J. SWAN evaluation. Oxford: Oxford Policy Management; 2021.

33. Harris D, Teka A, Mesfin Z, Betru E, Dessie E, Mesele T. BRE Operational Research: Assessing the efficiency and effectiveness of emergency health financing mechanisms in Ethiopia. Oxford: Oxford Policy Management; 2021.

34. Erkineh T. DRM Mainstreaming Gains in Key Ministries in Ethiopia. Addis Ababa: Oxford Policy Management; 2021.

35. Somali Regional Health Bureau. Intra-Action Review (IAR) on Public Health Emergency Preparedness and Response to Covid-19 in Somali Region. Jijiga: Somali Regional Health Bureau, MoH and EPHI; 2021.

36. Sidama Regional Health Bureau. Intra-Action Review (iar) on Public Health Emergency Preparedness and Response to Covid-19: Sidama Regional Health Bureau. Hawassa: Sidama Regional Health Bureau, Ministry of Health, Ethiopian Public health Institute; 2021.

37. Grieco K. Beyond the state: The role of traditional leaders in COVID-19. Oxford: OPM; 2020.

38. Nambiar D, Kullu A, Arora R. Managing the COVID-19 Crisis: Insights from Kerala. Delhi: Oxford Policy Management; 2020.

39. Ali SZ. COVID-19 Response: Rapid country study: Pakistan. Oxford: Oxford Policy Management; 2020.

40. Gambella Region Health Bureau. Intra-Action Review (IAR) on Public Health Emergency Preparedness and Response to Covid-19 in Gambella Region. Gambella: Gambella Region Health Bureau, COVID-19 Public Health Emergency Operation Center in Collaboration with WHO and Partners; 2021.

41. Ekirapa A. COVID-19 Response: Rapid country study: Kenya. Oxford: OPM; 2020.

42. SNNPR Health Bureau. Intra-Action Review (IAR) on Public Health Emergency Preparedness and Response to Covid-19 South Nations, Nationalities, and People's Regional (SNNPR) Health Bureau. Hawassa: SNNPR Regional Health Bureau, Ministry of Health, Ethiopian Public health Institute; 2021.

43. Bhandari D, Hodder C. Learning from Nepal NRA to inform the National Disaster Risk Reduction and Management Authority. Lalitpur, Nepal: Oxford Policy Management; 2019.

44. Allan S, Connolly D. Opportunity Cost of COVID-19 emergency expenditure reallocations: inception report. Oxford: Oxford Policy Management; 2020.

45. Bhandari D, Neupane S, Hayes P, Regmi B, Phil Marker. Disaster risk reduction and management in Nepal: Delineation of roles and Responsibilities. Oxford: Oxford Policy Management; 2020.

46. Building Resilience in Ethiopia, US Forest Service. Rapid Regional Coordination System Review. Addis Ababa: Oxford Policy Management and the US Forest Service; 2020.
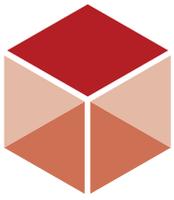
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