Health and Development Resilience in the Face of COVID-19
Considering the health and socioeconomic impacts of COVID-19, and its close relationship with policies that enable a DD-favorable policy environment, this DDEI has integrated a module to assess the resilience and sustainability of systems in each sector. The scoring follows existing frameworks and key principles of sustainable and resilient systems that can effectively respond to adverse events, security attacks, emerging infectious disease threats and other public health emergencies.

Our framework, presented in Figure 12, is an adaptation of existing frameworks to measure resilience in different sectors by Blanchet et al. and Linkov et al. This framework combines the National Academy of Sciences (NAS) recommended four stages of event management cycle that are needed for a system to be resilient and the four domains proposed by the Network-Centric Warfare (NCW) doctrine that ensure a shared awareness of the situation and inform effective decision making across system levels. Due to the critical importance of timely intervention and frequently irreversible impact of delayed action as proven by the COVID-19 pandemics, an additional element was added to assess timeliness of interventions to mitigate the impact of the crisis.

Figure 12. A conceptual framework: Health and Development Systems resilience domains.

Sectoral Resiliency Summary Results

Up to 25 questions were asked over the 4 Command and Control Domains, pertaining to each of the Resiliency Dimensions. Responses were recorded on a Likert scale of 1 to 10, where 1 represents the lowest score (poor state/capability) and 10 represents the highest score (great state/capability). This resulted in a total of 57 surveys completed for the module across all sectors: FP (16), MCH (10), ED (4), WE (9), LM (13), GEI (5). Results by sector are presented in Figure 14. The score values are as follows:

1. FP: 4.9 (95% CI: 3.9-5.8)
2. MCH: 6.0 (95% CI: 4.5-7.4)
3. ED: 3.9 (95% CI: 1.1-6.7)
4. WE: 4.6 (95% CI: 3.0-5.0)
5. LM: 5.2 (95% CI: 3.9-5.8)
6. GEI: 6.4 (95% CI: 3.6-9.1)

Confidence intervals are presented in the dotted lines to show the upper and lower bounds.

The overall resiliency score of the six sectors is 5.0 (95% CI: 4.5-5.5).
Resiliency Module Results Across Resiliency Dimensions

The resiliency module results across resiliency dimensions, by DDEI sector, are presented in Figure 14. This demonstrates the wide variations in scores within and across resiliency dimensions.

**Figure 14:** Bar chart of resilience module results across resiliency dimensions, by DDEI sectors in Kenya.
**Family Planning Resiliency Scores**

The FP sector survey included questions ranging across the four resiliency dimensions: preparedness, absorptive capacity, recovery capacity, and adaptive capacity, in addition to the timeline of responsiveness. Perceived resiliency scores are presented in Figure 15. The results are based on responses from 16 FP experts working in Kenya. The scores for each dimension within FP are as follows:

1. Preparedness: **4.8** (95% CI: 3.9-5.8)
2. Absorptive Capacity: **4.5** (95% CI: 3.5-5.5)
3. Recovery Capacity: **5.0** (95% CI: 4.0-5.9)
4. Adaptive Capacity: **5.0** (95% CI: 4.0-6.1)
5. Timeline: **5.3** (95% CI: 4.2-6.5)

Based on weighted statistical analysis, the overall score for the level of resiliency in the FP sector is **4.9** (95% CI: 3.9-5.8).

![Figure 15. Bar chart of resiliency results in the FP sector in Kenya, by dimension.](image)

**Maternal and Child Health Resiliency Scores**

The MCH sector survey included questions ranging across the four resiliency dimensions: preparedness, absorptive capacity, recovery capacity, and adaptive capacity, in addition to the timeline of responsiveness. Perceived resiliency scores are presented in Figure 16. The results are based on responses from 10 MCH experts working in Kenya. The scores for each dimension within MCH are as follows:

1. Preparedness: **5.9** (95% CI: 4.4-7.5)
2. Absorptive Capacity: **5.8** (95% CI: 4.4-7.2)
3. Recovery Capacity: **6.1** (95% CI: 4.7-7.4)
4. Adaptive Capacity: **6.0** (95% CI: 4.4-7.5)
5. Timeline: **6.3** (95% CI: 4.5-8.1)

Based on weighted statistical analysis, the overall score for the level of resiliency in the MCH sector is **6.0** (95% CI: 4.5-7.4).

![Figure 16. Bar chart of resiliency results in the MCH sector in Kenya, by dimension.](image)

**Women’s Empowerment Resiliency Scores**

The WE sector survey included questions ranging across the four resiliency dimensions: preparedness, absorptive capacity, recovery capacity, and adaptive capacity, in addition to the timeline of responsiveness. Perceived resiliency scores are presented in Figure 17. The results are based on responses from 9 WE experts working in Kenya. The scores for each dimension within WE are as follows:

1. Preparedness: **3.8** (95% CI: 2.9-4.8)
2. Absorptive Capacity: **4.0** (95% CI: 2.9-5.2)
3. Recovery Capacity: **3.9** (95% CI: 2.8-5.0)
4. Adaptive Capacity: **4.1** (95% CI: 3.0-5.2)
5. Timeline: **5.0** (95% CI: 3.1-6.9)

Based on weighted statistical analysis, the overall score for the level of resiliency in the WE sector is **4.0** (95% CI: 3.0-5.0).

![Figure 17. Bar chart of resiliency results in the WE sector in Kenya, by dimension.](image)
Education Resiliency Scores

The ED sector survey included questions ranging across the four resiliency dimensions: preparedness, absorptive capacity, recovery capacity, and adaptive capacity, in addition to the timeline of responsiveness. Perceived resiliency scores are presented in Figure 18. The results are based on responses from 4 ED experts working in Kenya. The scores for each dimension within ED are as follows:

1. Preparedness: 3.1 (95% CI: 0.9-5.2)
2. Absorptive Capacity: 4.4 (95% CI: 1.8-6.9)
3. Recovery Capacity: 3.7 (95% CI: 0.5-6.9)
4. Adaptive Capacity: 3.9 (95% CI: 0.7-7.1)
5. Timeline: 6.0 (95% CI: 2.6-9.4)

Based on weighted statistical analysis, the overall score for the level of resiliency in the ED sector is 3.9 (95% CI: 1.1-6.7).

Labor Market Resiliency Scores

The LM sector survey included questions ranging across the four resiliency dimensions: preparedness, absorptive capacity, recovery capacity, and adaptive capacity, in addition to the timeline of responsiveness. Perceived resiliency scores are presented in Figure 19. The results are based on responses from 13 LM experts working in Kenya. The scores for each dimension within LM are as follows:

6. Preparedness: 4.2 (95% CI: 3.1-5.3)
7. Absorptive Capacity: 5.1 (95% CI: 4.1-6.0)
8. Recovery Capacity: 4.8 (95% CI: 3.9-5.7)
9. Adaptive Capacity: 5.0 (95% CI: 4.0-6.1)
10. Timeline: 5.9 (95% CI: 4.8-7.0)

Based on weighted statistical analysis, the overall score for the level of resiliency in the LM sector is 4.9 (95% CI: 3.9-5.8).

Governance and Economic Institutions Resiliency Scores

The GEI sector survey included questions ranging across the four resiliency dimensions: preparedness, absorptive capacity, recovery capacity, and adaptive capacity, in addition to the timeline of responsiveness. Perceived resiliency scores are presented in Figure 20. The results are based on responses from 5 GEI experts working in Kenya. The scores for each dimension within GEI are as follows:

11. Preparedness: 6.2 (95% CI: 3.4-8.9)
12. Absorptive Capacity: 6.8 (95% CI: 4.6-9.1)
13. Recovery Capacity: 5.9 (95% CI: 2.5-9.3)
14. Adaptive Capacity: 6.4 (95% CI: 3.4-9.3)
15. Timeline: 7.2 (95% CI: 4.8-9.6)

Based on weighted statistical analysis, the overall score for the level of resiliency in the GEI sector is 6.4 (95% CI: 3.6-9.1).
Key Effort Levers to Improve Health and Development Resilience

**Family planning**

- **Preparedness**: Integrate emergencies preparedness and responsiveness provisions into routine FP policies, guidelines and programming by 2022
- **Absorptive capacity**: Ensure targeted investments on continuous simulations and capacity building of staff and strengthen the capacity of social institutions in emergency preparedness
- **Recovery capacity**: Ensure continuity and access to services during emergencies and crises by developing standard operating procedures and adapting innovative approaches and technology at all levels by 2022
- **Adaptive capacity**: Accelerate the adaptation of technology to enhance service delivery and data management by 2022

**Maternal and Child Health**

- **Preparedness**: Develop long term disaster plans that give clear guidelines that keep women and children healthy in their community without exposing them to risk
- **Absorptive capacity**: Expand an integrated MCH package at the community and household level
- **Recovery capacity**: Strengthen real data from the MCH platform at community and facility level to inform response
- **Adaptive capacity**: Strengthen capacity to track to ensure real time use of data to progress of service delivery

**Education**

- **Preparedness**: Digitize curriculum at all levels of education and training by 2025
- **Preparedness**: Provide ICT infrastructure and equipment to all learning institutions by 2025
- **Absorptive capacity**: Capacity build teachers/trainers and lecturers on delivery of curriculum using new technologies by 2025.
- **Recovery capacity**: Develop a financing strategy to mobilize resources for recovery after emergencies by 2023
- **Adaptive capacity**: Continuous review of curriculum at all levels of education and training to incorporate emerging issues

**Women Empowerment**

- **Preparedness**: Develop and implement a National Preparedness Strategy on empowerment of women and girls to mitigate humanitarian and emergency crises by June 2024
- **Absorptive capacity**: Promote integration of women and girls empowerment programmes into development planning by June 2023
- **Recovery capacity**: Mobilize resources from domestic and development partners to mitigate the effects of humanitarian and emergency crises by June 2023
- **Adaptive capacity**: Build capacity of National and County leadership to put in place programmes to improve resilience for women empowerment by June 2024

**Labour Market**

- **Preparedness**: Implement Business Continuity Strategy at enterprise level and promote life-long learning opportunities that matches changing labour market skills needs
- **Preparedness**: Strengthen coordination among key labour market players and labour market systems in generation and use of labour market information
- **Absorptive capacity**: Strengthen the capacity of workers and systems to facilitate collection, analysis, storage, and real-time use of labour market data
- **Recovery capacity**: Improved tripartite social dialogue between government, workers’ and employers’ organizations in developing and implementing sustainable solutions to economic and labour shocks and strengthen social protection mechanism for unprotected workers
- **Adaptive capacity**: Modernize employment services, improve working conditions and digitize operations in organizations for enhanced service delivery

**Governance and Economic Institutions**

- **Preparedness**: All Governance and Economic Institutions to put in place Disaster Management and Recovery Plans by 2023
- **Absorptive capacity**: Train all procuring entities on financial and procurement regulations that apply during emergencies/disasters to enhance accountability
- **Recovery capacity**: Implement all program and projects in the Kenya Post COVID Recovery Strategy
- **Adaptive capacity**: All Governance and Economic Institutions to put in place Disaster Management and Recovery Plans by 2023
References


