United Nations | Department of Economic and Social Affairs

DECADE OF ACTION

POLICY BRIEF NO 96

COVID-19: How the data and statistical community stepped up to the new challenges

THE PANDEMIC CAUSED A SERIOUS DISRUPTION TO STATISTICAL OPERATIONS ACROSS THE WORLD

In the current global health crisis, timely and reliable disaggregated data and statistics are critically needed to understand, manage and mitigate the human, social and economic losses affecting billions of people. But the disruptions to regular data production operations created by the coronavirus disease (COVID-19) lockdowns, combined with an unprecedented uptick in the demand for information to monitor the spread of the virus and mitigate its impacts, have created unprecedented challenges for the data and statistical community at the global, regional and global levels. Moreover, the pandemic struck at the moment when many countries were already dealing with serious resource constraints and facing urgent calls from all sectors of society to address serious gaps in data needed to launch a decade of action with effective, targeted policies to achieve the Sustainable Development Goals (SDGs).[1]

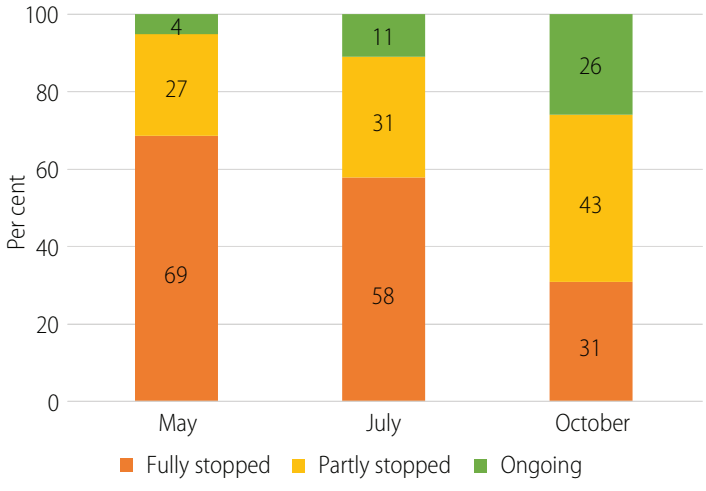
The COVID-19 Survey of National Statistical Offices conducted by the Statistics Division of UN DESA and the World Bank Development Data Group[2], found that, by May 2020, more than half of population and housing, agriculture, and enterprise or business census programmes that were scheduled for 2020 had to be postponed, particularly in low- and middle-income countries. And as of October 2020, almost three out of every four National Statistical Offices across all regions were fully or partially halting their face-to-face data collection operations, with dire consequences for many key statistical programmes.

Summary

Over the last year, the data and statistical community has faced unprecedented disruptions in statistical operations and a spike in demand for data to monitor the effects of the global pandemic. Many National Statistical Offices adapted quickly to challenges raised by COVID-19, and many of them have played a major role in governments' COVID-19 response. New partnerships have been crucial in responding to new data demands, helping National Statistical Offices introduce measures that are permanently changing the statistical production process in many countries. However, the pandemic has exacerbated critical funding gaps in national, regional, and global statistical offices, making the mobilization of international and domestic resources to support data for sustainable development more urgent than ever.

Figure 1

Status of face-to-face data collection operations in 2020



Source: Survey of National Statistical Offices (NSOs) during COVID-19, Rounds 1-3, May, July, and October 2020.

1 See United Nations (2020). UN/DESA Policy Brief #81: Impact of COVID-19 on SDG progress: a statistical perspective. Available from https://www.un.org/development/desa/dpad/publication/un-desa-policy-brief-81-impact-of-covid-19-on-sdg-progress-a-statistical-perspective/

2 United Nations and World Bank (2020). Survey of National Statistical Offices (NSOs) during COVID-19. Available from https://covid-19-response.unstatshub.org/statistical-programmes/covid19-nso-survey. See box at the end of this article for details on the number of countries that have participated in the survey.

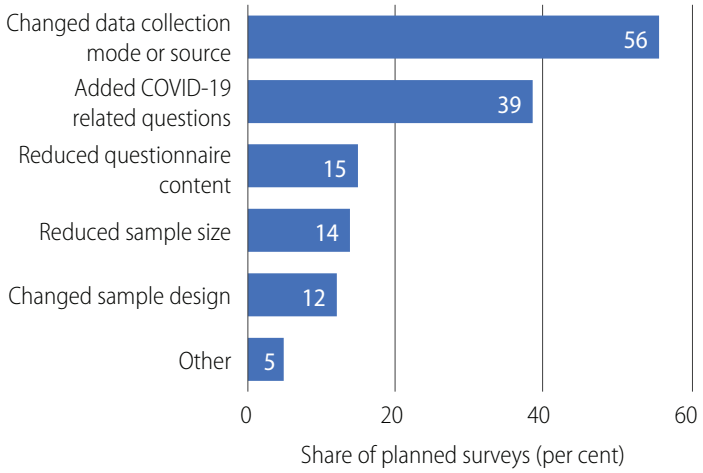
Authors: Luis G. González Morales, Chief, Web Development and Data Visualization Section; and Francesca Perucci, Chief, Development Data and Outreach Branch, United Nations Statistics Division. For further information, contact undesa@un.org, or visit www.un.org/development/desa/publications/

YET MANY NATIONAL STATISTICAL OFFICES ADAPTED QUICKLY TO THE NEW CHALLENGES

The first challenge faced by National Statistical Systems around the globe was to maintain the operational continuity of the regular statistical production processes and the timeliness of data dissemination, as major census and survey operations had to be rescheduled or temporarily suspended. In response, National Statistical Offices had to rapidly adjust their fieldwork protocols and transition to telecommuting, as well as to adapt their operations in order to transition from face-to-face to telephone and web-based data collection, and to make increased use of administrative records and new sources of information.

Figure 2

Changes introduced in survey programmes as a result of the COVID-19 crisis



Source: Survey of National Statistical Offices (NSOs) during COVID-19, Round 1, May 2020.

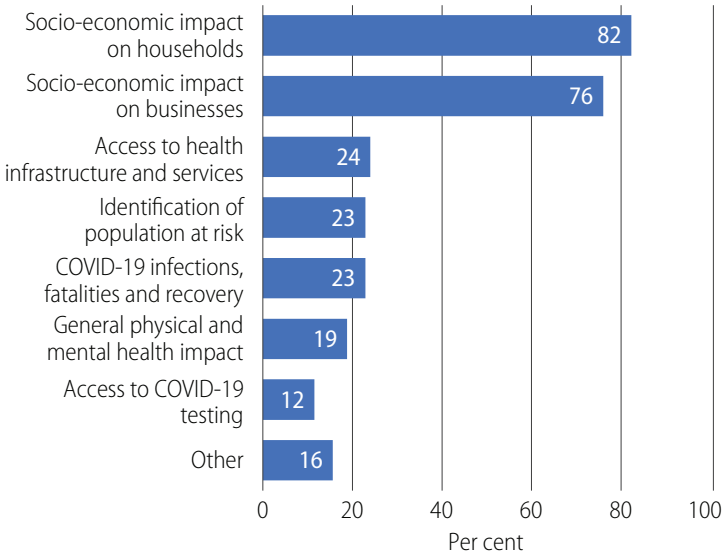
Members of the national and global statistical systems, under the leadership of National Statistical Offices around the world and in partnership with international organizations, civil society, academia, and the private sector, stepped up to the challenge and responded with agility and solidarity to the pandemic. There was almost immediate action, as National Statistical Offices looked for ways to mobilize long over-due investments in IT infrastructure, develop new protocols for data collection, adapt survey and census operations, accelerate the use of innovative data sources, engage with users, and provide leadership to develop new concepts of data governance and stewardship.

NATIONAL STATISTICAL OFFICES HAVE PLAYED A MAJOR ROLE IN GOVERNMENTS' COVID-19 RESPONSE

As part of their response to the crisis, National Statistical Offices have been actively contributing to the efforts of governments to track the evolution of COVID-19, monitor the social and economic impacts of the pandemic at the national and local levels, and provide the additional data needed to inform preventive and relief measures, integrating data from different sources and setting up new data platforms to make crucial data open and easily accessible to governments and all sectors of society. According to the third round of the COVID-19 Survey of National Statistical Offices, held in October 2020, 81.5 percent of a sample of 125 National Statistical Offices were involved in efforts to collect data on COVID-19 and its impacts. In particular, these efforts have focused on monitoring the socio-economic impact of the pandemic on households and businesses.

Figure 3

Focus of COVID-19 data collection efforts by National Statistical Offices

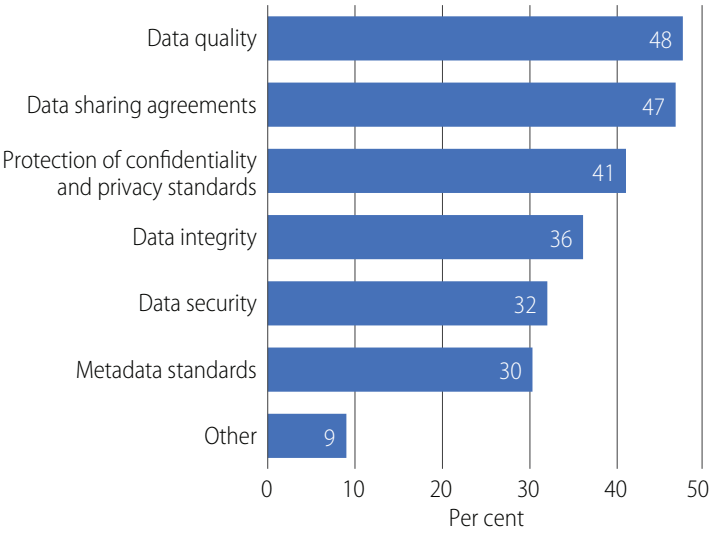


Source: Survey of National Statistical Offices (NSOs) during COVID-19, Round 3, October 2020.

The active participation of National Statistical Offices in high-level government efforts to assess possible policy interventions in the context of the COVID-19 pandemic was critical as high-quality, authoritative data informed the necessary urgent interventions and decision-making processes. For example, the Palestinian Central Bureau of Statistics produced economic forecasts to help

Figure 4

Proportion of National Statistical Offices that have coordinated government work with other agencies during the pandemic (by area of work)

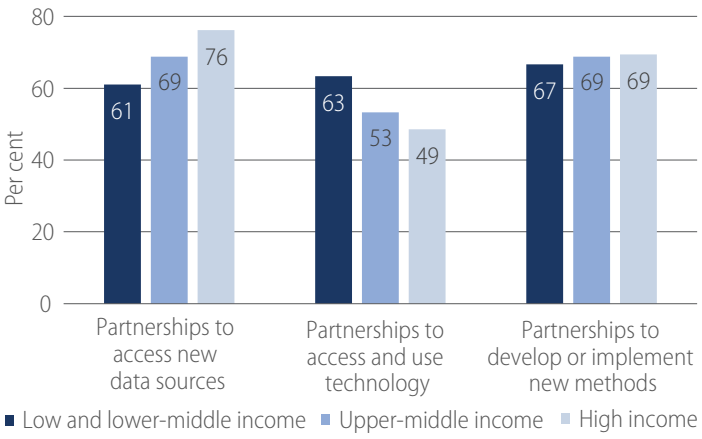


Source: Survey of National Statistical Offices (NSOs) during COVID-19, Round 3, October 2020.

policy makers assess the impact of lockdown measures over time. The Ghana Statistical Services has successfully leveraged call-detail records to assess the effectiveness of lockdown measures through population mobility analysis and implemented telephone-based COVID-19 rapid surveys in partnership with the private sector. And Chile's National Statistical Office launched in 2020 a geostatistical data platform to identify active COVID-19 cases and provide sociodemographic data, based on data generated from the population census and economic statistics.

Figure 5

Share of National Statistical Offices that have established new partnerships, by type of partnership



Source: Survey of National Statistical Offices (NSOs) during COVID-19, Round 3, October 2020.

NEW PARTNERSHIPS HAVE BEEN CRUCIAL IN RESPONDING TO NEW DATA DEMANDS

There have been impressive progress and achievements in enhancing data sharing and collaborative work within and across organizations.[3] More specifically, in the context of official statistics, over 7 in 10 NSOs that collected data on COVID-19 and its impacts relied on existing or new partnerships to do so. This approach was nearly universal in low and lower-middle income countries, where 89 percent of NSOs produced these data with at least one partner. International partnerships account for the highest share in low and middle-income countries, while public sector partnerships are predominant in their high-income counterparts.

THE MEASURES INTRODUCED DURING THE PANDEMIC ARE PERMANENTLY CHANGING THE STATISTICAL PRODUCTION PROCESS IN MANY COUNTRIES

In order to overcome shortcomings and vulnerabilities in data production systems that were brought to light by the crisis, and respond more effectively to future crises, National Statistical Offices must be able to adapt quickly to a changing environment, leverage new data sources, harness new digital technologies, and empower and equip their staff to identify and take advantage of innovation opportunities. Today, the statistical community is already transitioning from a crisis-management mode to a conscious effort to build resilience and to capitalize on the lessons learned during the crisis. Global and regional statistical organizations are now focusing on harmonizing the guidance available to countries, making sure that the responses of national statistical systems to future data collection disruptions incorporate lessons learned during the COVID-19 pandemic and are grounded in best practices and international cooperation. For example, based on the experiences of the last year, Eurostat has put together a voluntary crisis protocol specifying priority information that needs to be collected and published to support rapid decision making in future crises.

Increasingly, National Statistical Offices are focusing on the full value chain of data–from collection to use. In particular, implementing open data practices has become a priority for countries during the COVID-19 pandemic, as many national statistical organizations are

3 For an overview of achievements in sharing data, publications, and creating online collaborative platforms, see, for instance, OECD (2020).

paying a closer attention to understanding the use and impact of the data they disseminate. This highlights the need to invest in skills around data literacy, data stewardship and data governance, and to balance data access and protection of privacy in order to be able to embrace an "open data by default" approach for data dissemination. Similarly, recent country experiences have brought to the front challenges related to the integration of statistical and geospatial information, particularly on issues related to data privacy when working with geographically disaggregated data.

THE COVID-19 CRISIS HAS HIGHLIGHTED CRITICAL FUNDING GAPS AND INVESTMENT NEEDS

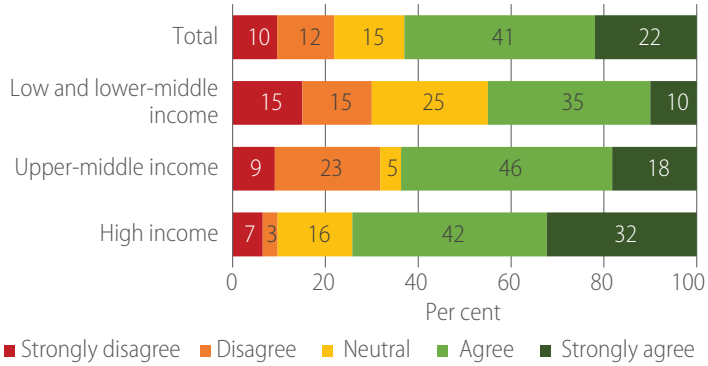
To reduce data inequalities and ensure that countries can rely on resilient and agile statistical and data systems to respond to this crisis and future shocks, it is necessary to ensure that data and statistics are adequately and effectively resourced. In the COVID-19 Survey of National Statistical Offices, eight in ten low and lower-middle income countries indicated that they needed additional support to be able to operate during the pandemic. Over half of NSOs in these countries have seen a decrease of funding from the government and donors. The large majority of respondents also stressed the need for coordination of support and regular consultation with NSOs by development partners.

In particular, the crisis has brought to the fore the need to invest in the modernization of data collection, processing, and dissemination infrastructure, and to upgrade the skill sets of staff working in statistical organizations. In particular, low and middle-income countries are still constrained by inadequate information and communication technology (ICT) equipment and infrastructure. For example, enhancing NSO's capabilities to access geospatial information sources was the area most frequently identified in the COVID-19 survey of NSOs as a priority need for capacity building. This was followed by the need to improve access to methods and tools for the analysis of geospatial information (e.g., for data aggregation and spatial analysis).

Clearly, the COVID-19 pandemic is posing an additional challenge to statistical systems, which requires mobilization of international and domestic resources. In addition, the urgent need remains to respond to the data demands for the implementation of the 2030 Agenda for Sustainable Development, based on the Cape Town Global Action Plan for Sustainable Development Data.[4]

Figure 6

Percentage of National Statistical Offices that agree with the statement: *"The office has access to adequate cloud computing services for remote data storage and exchange"*



Source: Survey of National Statistical Offices (NSOs) during COVID-19, Round 2, July 2020.

The COVID-19 survey of NSOs

A survey of National Statistical Offices conducted by the World Bank and the United Nations Statistics Division, in collaboration with the United Nations Regional Commissions, has collected information over three rounds on the main challenges to statistical operations that were created by from pandemic, and the ways in which NSOs have addressed those challenges while responding to increased data demands. A total of 195 NSOs were invited to participate in the first three rounds of this web-based survey. Of these, 122 NSOs (63 per cent) responded to the first round that took place in May. For the second round (July), 112 NSOs (57 per cent) responded. Some 125 NSOs (64 per cent) participated in the third round, completed in October.

REFERENCES

OECD (2020), "Why open science is critical to combatting COVID-19", available from http://www.oecd.org/coronavirus/policy-responses/why-open-science-is-critical-to-combatting-covid-19-cd6ab2f9/

United Nations (2020). UN/DESA Policy Brief #81: Impact of COVID-19 on SDG progress: a statistical perspective. Available from https://www.un.org/development/desa/dpad/publication/un-desa-policy-brief-81-impact-of-covid-19-on-sdg-progress-a-statistical-perspective/

United Nations (2021). Report of United Nations Statistical Commission's side event "The COVID-19 pandemic: How the data and statistical community stepped up to the new challenges." Available from https://unstats.un.org/unsd/statcom/52nd-session/side-events/HLSE-COVID-19-Summary-report-final.pdf

United Nations and World Bank (2020). Survey of National Statistical Offices (NSOs) during COVID-19. Available from https://covid-19-response.unstatshub.org/statistical-programmes/covid19-nso-survey/ .

4 https://unstats.un.org/sdgs/hlg/cape-town-global-action-plan/