



Third round of the global pulse survey on continuity of essential health services during the COVID-19 pandemic: November–December 2021

Interim report

7 FEBRUARY 2022

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Summary of findings

WHO is tracking disruptions to essential health services in the context of the COVID-19 pandemic and has conducted three rounds of pulse surveys in 2020 and 2021 to assess the extent of these disruptions.

Disruptions to essential health services

- **Despite early evidence of service recovery, nearly all countries are still affected by the COVID-19 pandemic** with 92% of 129 countries participating in the 3rd round of WHO's *Global pulse survey on continuity of essential health services during the COVID-19 pandemic* reporting some kind of disruption to services during the preceding six months from the date of survey submission (June-November 2021). This was similar to what was reported in Q1 2021 and Q3 2020, and of concern considering the recent wave of COVID-19 Delta and Omicron variants..
- **No service or delivery platform is exempt from adverse impact.** Many people are missing out on essential first-contact care, with primary care and community care among the most affected service delivery settings.
- **Potentially life-saving emergency, critical and operative care interventions show increased service disruptions**, likely resulting in substantial near-term impact on health outcomes, with 37% of countries reporting disruptions to ambulance services, 33% to 24-hour emergency room services and 24% to emergency surgeries.
- **In addition, 59% of 71 countries report disruptions in elective surgeries** with 14% (10 of 71 countries) reporting severe disruptions (with more than 50% of users not being served as usual), with accumulating consequences as the pandemic continues.
- **Similarly, no major health area is exempt from adverse impact**, with little improvement across most health areas, including management of mental, neurological and substance use disorders (with particular disruptions to school-based and other mental health programmes); cancer care; neglected tropical diseases; infectious diseases, including tuberculosis (TB), human immunodeficiency virus (HIV), hepatitis and malaria; sexual, reproductive, maternal, newborn, child and adolescent health; and nutrition (see Annex 1).
- **Even as COVID-19 vaccination has scaled up, disruptions in routine immunization services have increased**, with almost half of 82 countries reporting service disruptions (8% reporting severe service disruptions) compared to about one-third of 96 countries reporting any disruption (5% with severe disruption) in Q1 2021.
- **The magnitude and extent of disruptions reported within 91 countries responding to all three rounds of the survey in Q4 2021 is relatively consistent with Q1 2021**, with 44% of a set of 28 tracer services in countries disrupted on average, as compared to 41% in Q1 2021 and 56% in Q3 2020.

Health systems and services responsiveness

- **About half of countries (43 of 87) have plans in place for building longer-term health service resilience and preparedness**, with 70% of countries (55 of 79) having invested additional government funding towards health service resilience and preparedness strengthening for future public health emergencies.
- **All countries are implementing strategies to overcome service disruptions, with more than 70% of countries using key WHO-recommended approaches to mitigate health workforce issues, support surge procurement of commodities and scale up community communications**, including redistribution of health worker tasks and optimization of roles, recruitment of additional staff and rapid training mechanisms and job aids for key tasks and roles.

Bottlenecks to access to essential COVID-19 tools

- **Most countries (91%, 87 of 95) reported at least some level of bottlenecks**, with the majority of countries reporting health workforce challenges. Such challenges were reported by 56% of countries for diagnostics and testing; 64% for COVID-19 case management; and 36% for personal protective equipment (PPE) use and distribution.
- **Demand-side challenges are the most common bottleneck to scale-up of COVID-19 vaccination**, reported by almost 60% of 95 countries. Demand-side challenges include community acceptance and affordability.
- **Health worker recruitment, retention and training, surge procurement, financial planning and risk communication and community engagement are the main areas of technical support needs identified by countries**. These health system areas are also a main focus of frequently reported strategies being used to overcome service disruptions. WHO will continue to support countries in health system strengthening to overcome challenges during and beyond the COVID-19 pandemic.

Conclusions

- **Survey results suggest that more than two years into the pandemic, health systems are still not recovering or transitioning beyond the acute phase of the pandemic**, and COVID-19 continues to disrupt essential health services in almost all countries across the globe.
- **The magnitude and extent of disruptions within countries has not significantly changed since Q1 2021**, though all countries have intensified efforts to respond to health systems challenges, bottlenecks and barriers to care brought on by the COVID-19 pandemic.
- **The survey also highlights the impact of pre-existing health systems issues that have been exacerbated by the pandemic.**

- **Countries are facing critical challenges to ensure continuity of essential health services and scale up access to essential COVID-19 tools, notably related to health workforce availability and capacities.** Such challenges are likely caused by a combination of pre-existing shortages coupled with unavailability due to COVID-19 infections and deaths, mental health issues and burnout and departures from service due to a lack of decent working conditions.
- **Countries are beginning to plan for post-pandemic recovery,** with about half having a plans in place for building longer-term health service resilience and preparedness.
- **Countries have highlighted that key support is needed from WHO to scale up essential COVID-19 tools,** with health worker recruitment, retention and training, surge procurement, financial planning and risk communication and community engagement the most frequently cited needs.

Introduction

Countries worldwide are continuing to face many challenges as they respond to the COVID-19 pandemic. The maintenance of essential health services is critical as disruptions to essential health services – including services for health promotion, disease prevention, diagnosis, treatment, rehabilitation and palliation – may potentially have even greater adverse population and individual health effects than the pandemic itself, especially in vulnerable populations.

To better understand the extent of disruptions to essential health services caused by the COVID-19 pandemic worldwide, WHO has been monitoring the global situation through multiple avenues including a rapid key informant survey on the continuation of essential health services during the COVID-19 pandemic.¹ In November – December 2021, WHO launched the third round of its global pulse survey in which 223 countries, territories and areas² were invited to respond to a standardized web-based survey. This third survey follows up on WHO's previous 2020 and 2021 pulse surveys: Round 1 (🇺🇸) (1) and Round 2 (🇺🇸) (2) pulse surveys on continuity of essential health services during the COVID-19 pandemic; Rapid assessment on the impact of the COVID-19 pandemic on noncommunicable disease resources and services (🇺🇸) (3); Rapid assessment on the impact of COVID-19 on mental, neurological and substance use services (🇺🇸) (4); and Round 1 (🇺🇸) (5) and Round 2 (🇺🇸) (6) pulse surveys on immunization.

The three rounds of the WHO pulse survey provide an opportunity to assess how the pandemic's impact has evolved over time regarding disruptions and rebounds in services and responses, mitigation strategies and bottlenecks to the implementation of essential COVID-19 tools.

The pulse surveys aim to support rapid assessment of the impact of the COVID-19 pandemic on health systems and essential health services across the life course. The findings provide immediate insights from key informants into the current country experience, extent of disruptions to a set of tracer services against a rapidly changing context and main reasons for those disruptions. The survey also captures the challenges health systems are facing to ensure continued access to services and essential COVID-19 tools (including COVID-19 diagnostics, COVID-19 therapeutics, COVID-19 vaccines and PPE) and how countries are responding to mitigate challenges and recover services.³ The findings can be used to support evidence-informed planning and implementation of mitigation strategies in countries.⁴ The results are also used for monitoring progress of multiple WHO and other response-related plans.⁵

This report presents the results of the third round of the pulse survey. It also includes an assessment of trends over time in the continuation of essential health services, where feasible.

¹ Other methods include health facility assessments, routine health facility data analyses and policy analyses.

² Throughout the full report, the term "countries" should be understood to mean "countries, territories, and areas".

³ Countries provide a wide range of services for health protection, promotion, prevention, treatment and care, but it is possible to define a set of tracer indicators that provide a good picture of overall service coverage. See *2021 UHC monitoring report* (7).

⁴ See WHO's *Maintaining essential health services: operational guidance for the COVID-19 context* (8) and *Community-based health care, including outreach and campaigns, in the context of the COVID-19 pandemic* (9).

⁵ WHO's *2021 COVID-19 strategic preparedness and response plan monitoring and evaluation framework* for Pillar 9: Maintaining essential health services and systems; Pillar 2: Risk communication, community engagement (RCCE) and infodemic; and Pillar 1: Coordination, planning, financing and monitoring (10). It also contributed to monitoring for the Global humanitarian response plan (11).

Methods

Instrument

The pulse survey consisted of multiple-choice and open-ended questions related to current national policies, plans and structures, disruptions to health services, reasons for disruptions, mitigation approaches, information tracking and priority needs. It included sections that targeted different key informants in the country, including a section on cross-cutting health system functions and services and focused sections on disruptions to service-specific areas.

In some cases, countries were also asked to upload or link to national plans and documents outlining the national package of essential health services and/or list of essential health services to be maintained during the pandemic, if available.

The full questionnaire is available in Annex 2.

Across all survey sections, a total of 66 services were assessed. Across service delivery settings and platforms, the survey included services for primary care, emergency, critical and operative care; rehabilitative and palliative care; and community care. Across health service areas, the survey included services for sexual, reproductive, maternal, newborn, child and adolescent health (SRMNCAH); nutrition; care for older people; immunization; communicable diseases; neglected tropical diseases (NTDs); and mental, neurological and substance use (MNS) disorders. A list of these services is included in Annex 3. This survey round did not include a section on noncommunicable diseases because a separate WHO survey with comparable data has recently been conducted.

Questions related to specific service disruptions were modified based on the lessons learnt from previous rounds. The number of services expanded from 44 in round 1 to 63 in round 2 and 66 in round 3. The ordinal response categories for the questions on service disruptions increased from a three-point ordinal scale in round 1 (more than 50% of users not served as usual; 5-50% of users not served as usual; and less than 5% of users not served as usual) to a four-point scale in rounds 2 and 3 (more than 50%, 26–50%, 5–25% and less than 5% of users not served as usual). In all survey rounds, respondents could respond “Do not know” if information was not or not yet available on that service’s disruption, or “not applicable” if the service/intervention is not usually delivered in the country.

Between the first survey⁶, second (2) and third survey rounds, there were 28 tracer services that can be used to compare trends over time. The trend analyses for service disruptions were limited to the same 95 countries with data for all three rounds.

Process for completion

Through collaboration between WHO Headquarters and the Regional Offices, WHO distributed the third round of the pulse survey through a secure web-based questionnaire in LimeSurvey software to Ministries of Health through WHO Regional Offices and WHO Country Offices (WCO) in all six WHO regions, together with instructions for completing the questionnaire. The questionnaire was made available in Arabic, English, Chinese, French, Portuguese, Russian and Spanish to support completion.

⁶ Including the *Pulse survey on continuity of essential health services during the COVID-19 pandemic* (1); *Rapid assessment on the impact of the COVID-19 pandemic on noncommunicable disease resources and services* (3); and *Rapid assessment on the impact of COVID-19 on mental, neurological and substance use services* (4).

The survey was designed in modular sections so that focal points could complete their relevant sections simultaneously, which facilitated rapid completion, reduced the burden on individual respondents and ensured that each content area was assessed by the right technical focal point. Suggested key informants were noted in the tool and it was recommended that a survey focal point (from WCOs and/or within the Ministry of Health as appropriate to country context) be designated to lead the survey coordination process, including:

- identifying national focal points/key informants to complete each survey section (for some in-depth modules, this involved representatives from relevant professional associations if there were no designated ministerial level focal points)
- disseminating the survey link to relevant national focal points/key informants
- tracking and following up completion of survey sections
- as feasible, organizing follow up activities and dialogues to support data use.

Under the best circumstances, survey key informants came together in a collaborative discussion to review and align responses across survey sections prior to submission. If this was not possible, each section could be completed independently by its respective key informant. Following submission of responses, ministries of health were encouraged to use the results – combined with other data – to inform roundtable discussions and policy dialogues to identify critical bottlenecks and guide priority actions.

Data sharing agreement

Before completing any survey section, all key informants were asked to review the WHO data sharing agreement and contact WHO by email to notify any opt out of the data sharing agreement. Findings from any countries, territories or areas opting out of the data sharing agreement are included only in global and regional aggregated findings. The data sharing agreement appears at the end of the survey instrument and is available in Annex 2. No countries opted out of the data sharing agreement in the round 3 survey.

Responses

The survey was sent to 223 countries, territories, and areas. By 20 January 2022, 129 (58%) had responded to the survey, which was slightly lower than in round 2 (63% (135 of 216)). Out of 223 countries, 69 (31%) submitted all survey sections considered relevant to the context. A list of responding countries, territories and areas is included in Annex 4. Global and regional response rates are included in Table A2 in Annex 4. Most survey responses were received during November – December 2021. The reporting period of the survey refers to the six-month period preceding the month of survey completion. Round 2 of the survey took place during January – March 2021 and the reporting period referred to the 3-month period preceding the month of survey completion. Round 1 of the survey took place during May – September 2021 and the reporting period referred to the 3 month period preceding survey completion. For analysis of trends over time, the assumption is made that Round 3 corresponds with Q4 2021, Round 2 with Q1 2021 and Round 1 with Q3 2020.

Most responses were submitted through the online portal. A few responses were received by email and were then entered into the online platform by the technical team at WHO headquarters. Data from the questionnaire were downloaded directly from the web-based platform to Stata (12) for data cleaning and management and analysed in Microsoft Excel. The analysis presented in this report is based on unweighted country and territory data. 'Do not know' and 'Not applicable' responses were excluded from the denominators in analyses, unless considered pertinent.

Limitations

The limitations of the survey should be taken into account in the interpretation of findings. In general, responses provided by key informants reflect self-assessment, which may be prone to bias and lacks validation.

The type and mix of respondents and method of survey completion also varied across countries, territories and areas. Respondents included health policy advisors, directors of health services and health systems, directors of programmes, monitoring and evaluation focal points, public health officers, health systems and services officers and incident management team focal points. No details on type of respondents were gathered. Coordination between ministry of health focal points prior to submission also varied. In some cases, key informants submitted survey responses individually, and in other cases survey section responses were reviewed and validated through a cross-cutting consultation prior to submission.

The reference period in round 3 covers the six months preceding survey submission to capture the situation in countries during the period of time since completion of the second survey round (rather than three months as was the case in the previous survey rounds). This means that the level of disruption can be overestimated in comparison to rounds 1 and 2 and limits the extent to which comparisons over time can be interpreted.

The country reports refer to national situation assessment only and do not reflect subnational variability within countries. Additionally, countries were at different stages of the COVID-19 pandemic when they submitted their responses, so variations in cross-country comparisons are to be expected. Moreover, the survey design resulted in submission of different combinations of survey sections by each country, territory and area. Consequently, each survey section has a different denominator, which must be considered in interpretation of aggregated results across countries and survey sections.

Different numbers and combinations of participating countries introduce potential bias into global comparisons between survey rounds. Moreover, some countries/territories/areas that could not participate in the third round may have been severely impacted. This could have resulted potentially in underestimation of disruptions globally. Response rates also varied across regions, limiting the extent of regional comparisons.

Finally, the novelty of concepts and terminology related to essential health services, service continuity, service disruptions and mitigation strategies may have been interpreted differently by respondents, with potential implications for results.

Results

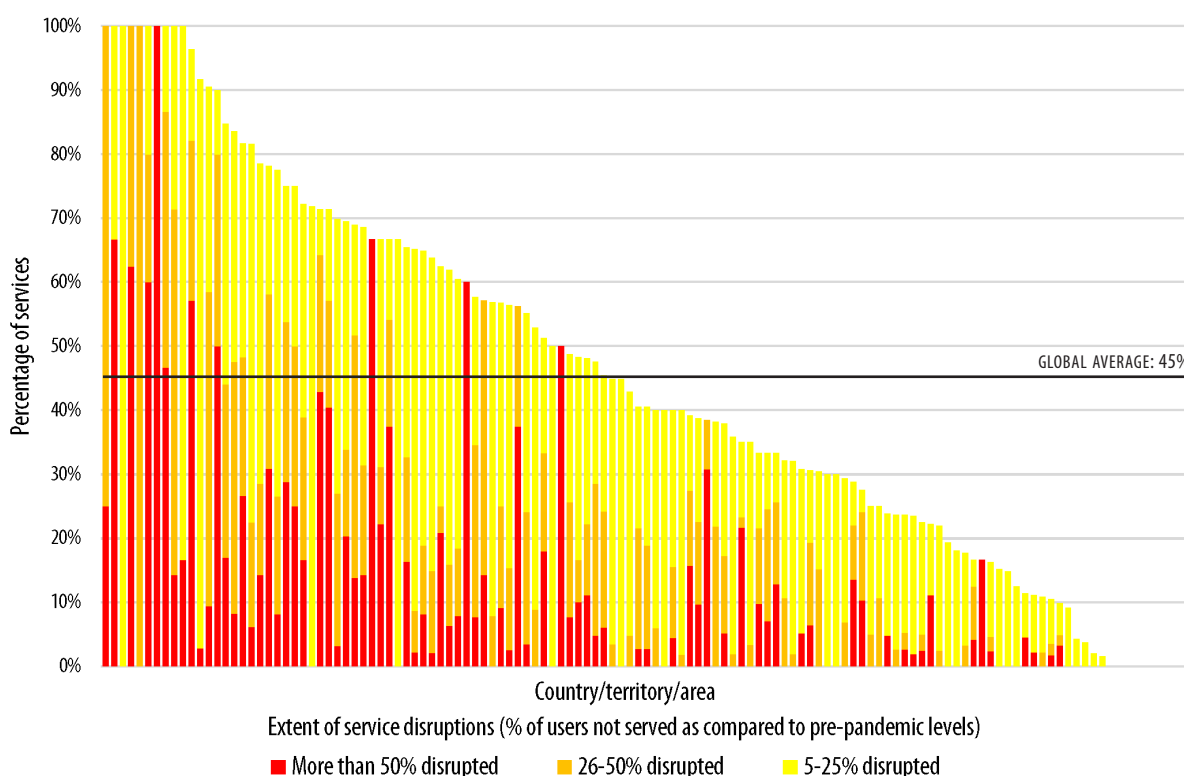
Disruptions to essential health services

Disruptions of at least one essential health service were reported by almost all participating countries (92%), which was similar to previous pulse rounds (90% and 94% in round 1 and 2, respectively). These disruptions often affected many of the 66 tracer services:

- 18% of countries reported disruptions in 75–100% of services
- 24% of countries reported disruptions in 50–74% of services
- 29% of countries reported disruptions in 25–49% of services
- 20% countries reported disruptions in less than 25% of services
- 8% of countries reported no disruptions.

On average, disruptions were reported in almost half of the services (45% of 66 services). See Figure 1, below.

FIG. 1. Percentage of services disrupted per country (number of tracer services = 66)

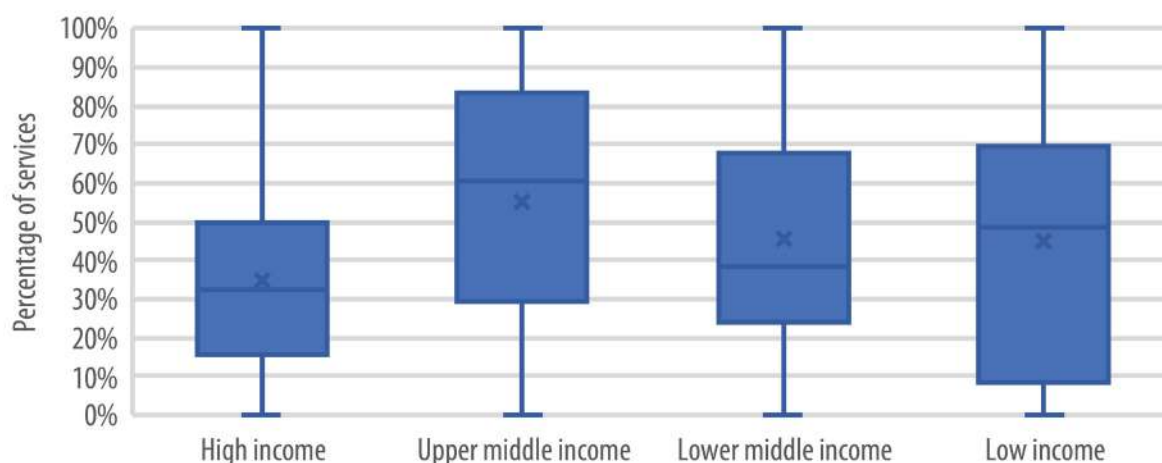


Denominator: represents responses from countries/territories/areas that responded to at least one survey section and consented to data sharing agreement. Percentages may not add up to exactly 100% due to rounding.

Some variation was seen in the percentage of services reported as disrupted by countries across regions and income groups. Overall, countries in the WHO Region of the Americas reported the highest average

percentage of services disrupted in each country (55% in 27 countries versus 28% in 23 countries in the European region), although these findings should be interpreted with caution, given the varied response rates across regions. Regarding disruptions across any of the 66 tracer services, there was considerable variation by and within country income groups, with high-income countries generally reporting fewer services disrupted compared to lower-income countries (see Figure 2, below). 32 high-income countries reported an average of 34% of service disrupted, while 31 upper middle-income countries reported an average of 55% of services disrupted in country.

FIG. 2. Percentage of 66 services disrupted by income group (n=126)



Analysis of trends was done for the 28 essential services that were assessed in all three survey rounds in the 91 countries that responded to all three survey rounds. The magnitude of disruptions in Q4 2021 (Round 3) was 44%, which was similar to the situation in Q1 2021 (round 2), but lower and less severe than in the middle of 2020 (round 1) (see Table 1, below).

In the three regions with reporting rates over 75%, the median level of service disruption was 48% (interquartile range (IQR): 18-69%, n=36 countries) in the African Region, 31% (IQR: 22-60%, n=16) in the Eastern Mediterranean Region and 58% (IQR: 29-78%, n=8) in the South-East Asian Region. In the European Region and Region of the Americas – where 40-50% of the countries reported – the median were 30% and 62%, respectively. The Western Pacific region had too few reporting countries to reliably calculate median and IQR.

TABLE 1. Level of service disruption across 28 tracer services in 91 countries submitting responses to all three survey rounds

| | Q3 2020 (Round 1) | Q1 2021 (Round 2) | Q4 2021 (Round 3) |
|---|----------------------|----------------------|----------------------|
| Average percentage of services disrupted per country | 56% | 41% | 44% |
| Percentage of countries reporting 75–100% of services disrupted | 37% | 13% | 19% |
| Percentage of countries reporting 50–74% of services disrupted | 23% | 29% | 26% |
| Percentage of countries reporting 25–49% of services disrupted | 18% | 26% | 23% |
| Percentage of countries reporting less than 25% of services disrupted | 11% | 27% | 21% |
| Percentage of countries reporting no services disrupted | 11% | 4% | 11% |

Denominator: represents responses from countries/territories that responded to all three survey rounds and consented to data sharing agreement. Four countries answering “Do not know” or “Not applicable” to all services in at least one round are excluded from this analysis. Cumulative percentages may not add up to exactly 100% due to rounding.

Services include primary care, emergency, critical and operative care, rehabilitation, palliative care, cancer care and community care; and tracer services for reproductive, maternal, newborn, child and adolescent health and nutrition; immunization, communicable diseases, neglected tropical diseases, mental, neurological and substance use disorders; and care for older people.

The average percentage of services disrupted across countries was also analysed against countries' average daily case count during the months of survey collection based on the WHO weekly epidemiological update on COVID-19 (13) (see Figure 3, below), and against the Oxford COVID-19 response stringency index (14) (see Figure 4, below). As in the previous pulse survey rounds, there was no clear association with COVID-19 case counts per 100 000 population during the six months preceding the survey. Countries with low caseloads had service disruptions ranging from none to nearly 100%. Countries with high caseloads also had widely divergent levels of service disruption.

No clear correlation was observed between the level of reported service disruptions and the Oxford government response stringency index, which is based on a range of COVID-19 restriction measures imposed by each country. These indicator data were downloaded from Our World in Data (15). The stringency index is a composite measure based on nine response indicators including school closures, workplace closures and travel bans, rescaled to a value from 0 to 100 (100 = strictest response). As with average COVID-19 case counts, there is no clear association between the stringency index and the percentage of services reported as disrupted by each country.

FIG. 3. Mean daily COVID-19 case rates (June–December 2021) compared to percentage of 66 services disrupted in-country (n=121)

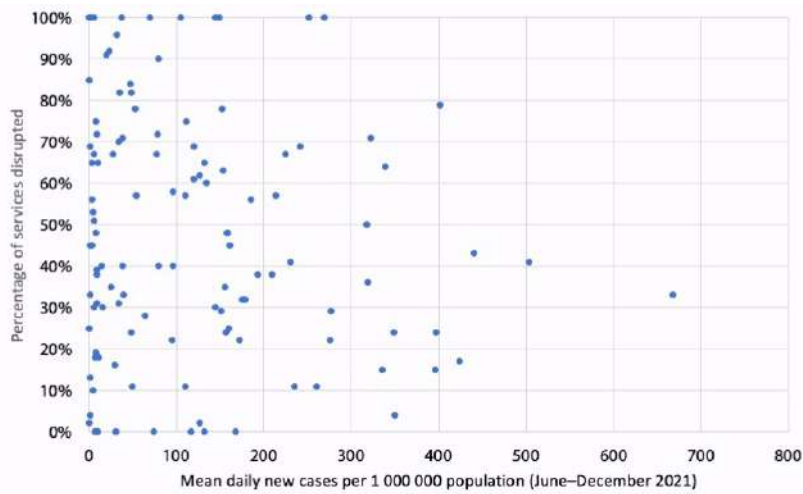
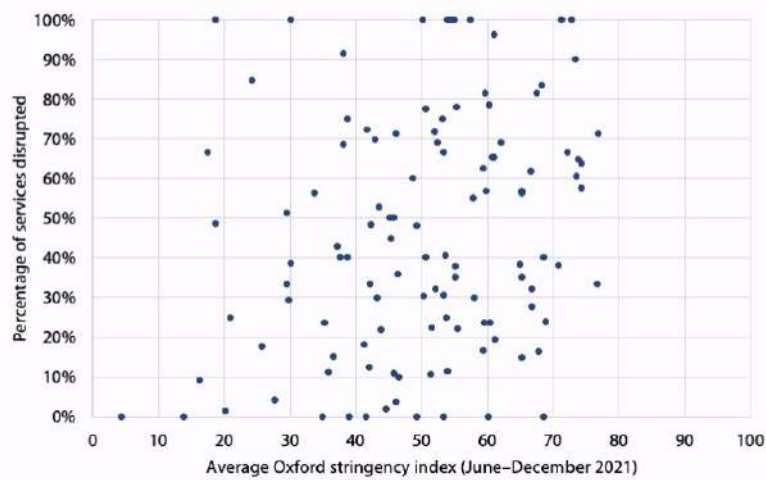


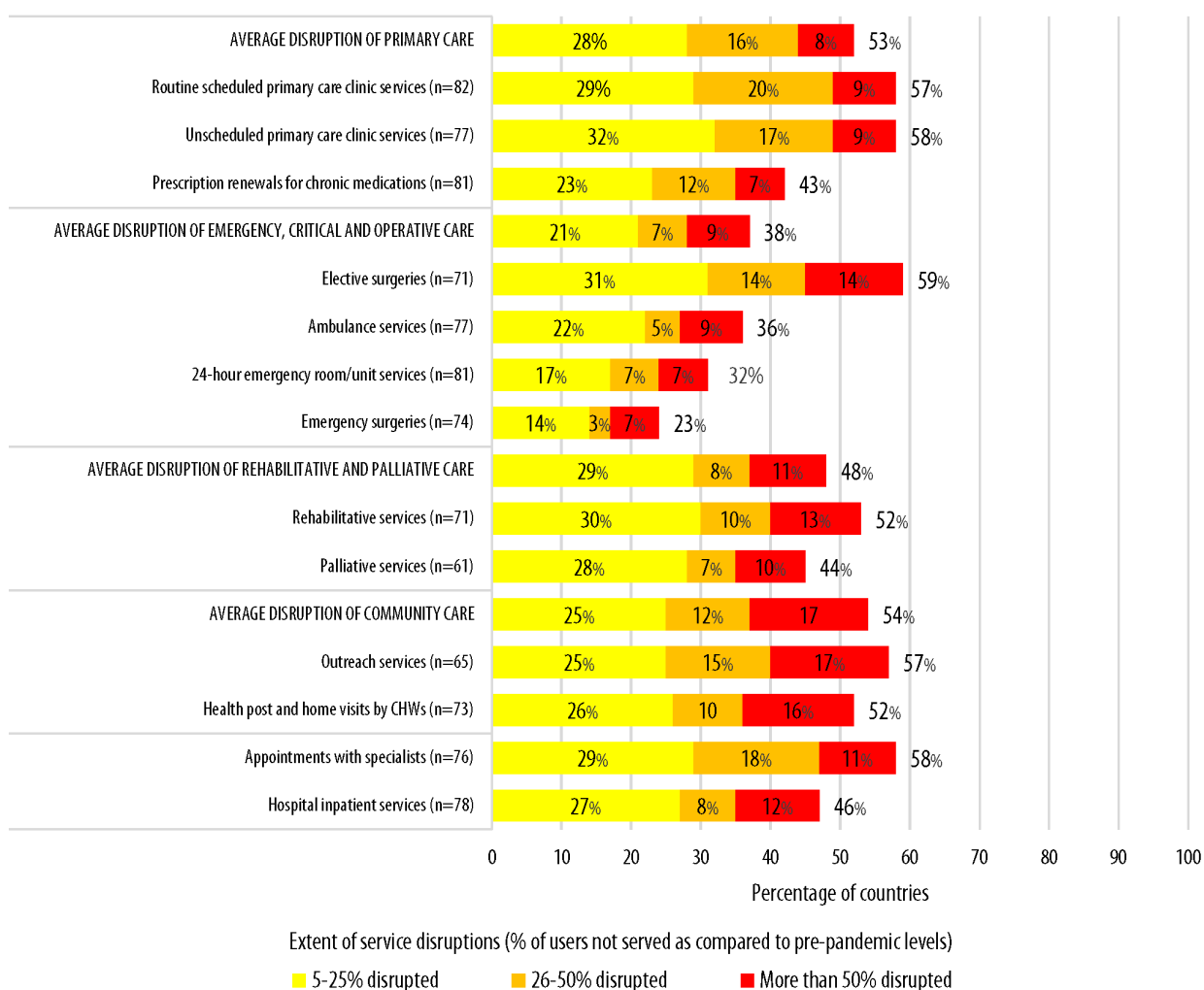
FIG. 4. Mean stringency index (June–December 2021) compared to percentage of services disrupted in country (n=116)



Disruptions across service delivery settings and platforms

Disruptions were reported in all service delivery settings and platforms, including in primary care (53% of 80 countries), emergency and critical care (38% of 76 countries), rehabilitation and palliative care (48% of 66 countries) and community care (54% of 69 countries) (see Figure 5, below). The results were similar to what was reported previously by countries that participated in all three rounds, with the exception of emergency care, which was more frequently disrupted in round 3 (see Figure 6, below). Results are presented for only two rounds for primary care and elective surgery because these service delivery settings were not explicitly covered in round 1 of the survey.

FIG. 5. Service disruptions across service delivery settings (n=95)



Note: Countries reporting “Do not know” or “Not applicable” are not included in denominator. Therefore, the number of countries may be less than total number of countries that completed the relevant module.

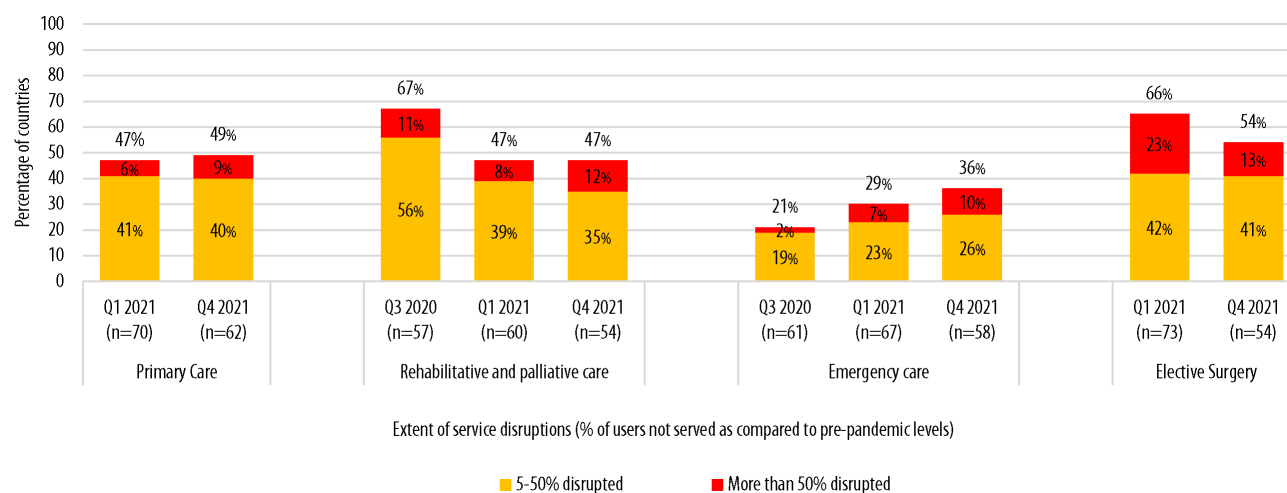
Under primary care, routinely scheduled visits (57% of 82 countries), unscheduled primary care clinic visits (58% of 77 countries) and prescription renewals for chronic medications (43% of 81 countries) were disrupted. Community care such as outreach services were disrupted in 56% of 65 countries. As described

in WHO's Operational Framework for Primary Health Care (16), primary care plays a key role in the health system, providing first-contact, accessible, continuous, comprehensive and coordinated patient-focused care. Primary care sits at the foundation of achieving universal health coverage (UHC), and any disruptions in this setting can have major impact across the health system for service delivery and the overall health and well-being of patients. The disruptions in primary care services were most commonly reported by countries in the region of the Americas (70%, n=18 countries) and upper middle-income countries (60%, n=18). These disruptions are of concern not only for primary care, but also for other service delivery settings, as a lack of access to primary care can often result in greater pressures and reliance on other service delivery settings, such as emergency care.

Disruptions to potentially life-saving emergency, critical and operative care interventions are of particular concern. Critical services such as ambulances, 24-hour emergency room/units, and emergency surgeries were disrupted in 36% (28 of 77), 32% (26 of 81) and 23% (17 of 64) of countries, respectively. Overall, reports of emergency service disruptions increased from 29% of 67 countries in Q1 2021 to 36% of 58 countries in Q4 2021. Postponement of elective surgeries was, as expected, more common (42 of 71 countries, or 59%), leading to increasing backlogs as the pandemic is prolonged with 40% (21 of 52) of countries reporting an increase in backlogs for elective surgery and procedures over the previous six months.

Substantial disruptions have also been reported through the end of the continuum of care. More than half (37 of 71 countries) reported disruptions to rehabilitative services, and 44% (27 of 61) of countries reported disruptions to palliative care services.

FIG. 6. Comparison of disruptions by service delivery setting in 95 countries responding to all three survey rounds: Q3 2020 (Round 1), Q1 2021 (Round 2) and Q4 2021 (Round 3)



Note: Analysis of disruptions over time was limited to 95 countries that responded to all three survey rounds, though the specific questions answered in each round may have differed. Therefore, the denominators may not be consistent across services and across the three rounds.

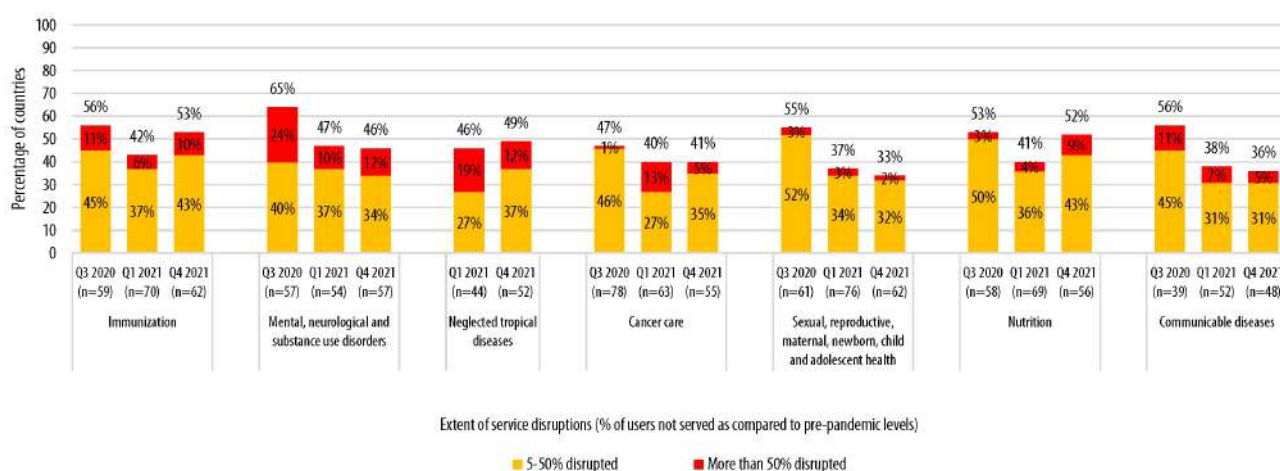
Disruptions to tracer services

Key informants also reported the extent of disruption to condition- and programme-specific tracer services for major health areas (See Figure 7, below). These included: sexual, reproductive, maternal, newborn, child and adolescent health (disruptions in 32% of 74 countries), nutrition (54% of 70 countries), immunization (48% of 82 countries), communicable disease (36% of 62 countries), cancer care (45% of 71 countries), neglected tropical diseases (46% of 63 countries), mental, neurological and substance use disorders (44% of 71 countries) and care for older people (55% of 59 countries).

The reported disruptions in round 3 were similar to round 2 except for immunization where, among countries participating in all three rounds, 53% of countries reported disruptions in immunization services, up from 42% in round 2, and close to what was reported in round 1 (56%). Nearly half (49% of 72 countries) indicated that COVID-19 vaccination scale-up caused disruptions to outreach services of routine vaccination programmes, while 45% of 75 countries reported that the COVID-19 vaccination scale up caused disruptions to routine immunization services for school-aged children and adolescents, and 43% of 86 countries reported such disruptions to services for infants and young children.

Detailed results on tracer service disruptions for each major health condition and programme area are provided in Annex 1.

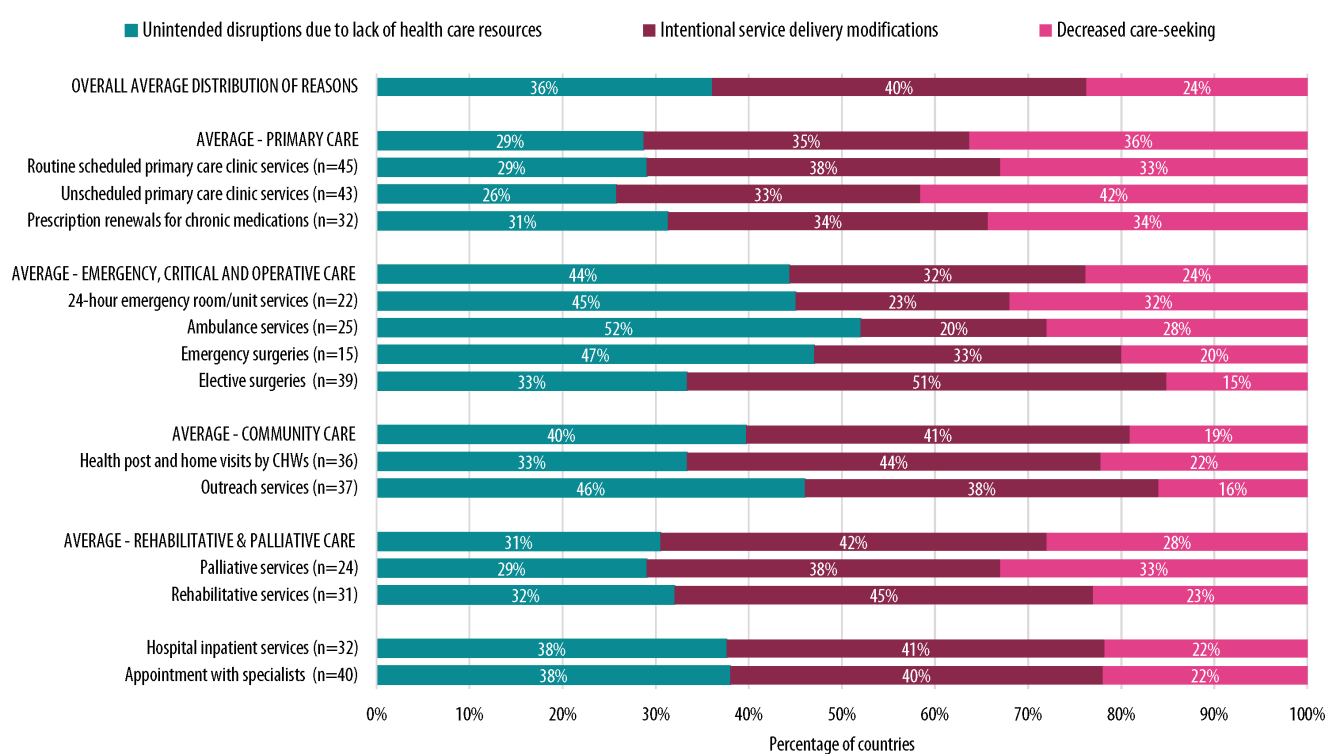
FIG. 7. Comparison of disruptions by tracer service area in 95 countries responding to all three survey rounds: Q3 2020 (Round 1), Q1 2021 (Round 2) and Q4 2021 (Round 3)



Reasons for service disruptions

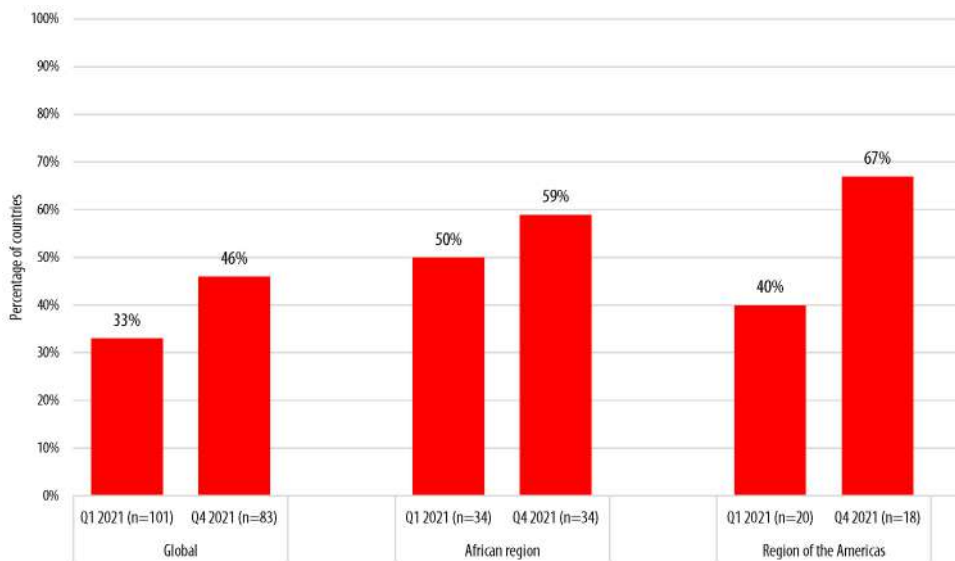
A mix of demand and supply side factors were responsible for disruption to services. Figure 8 shows the percent distribution of countries reporting lack of resources, intentional service delivery modifications, and decreased care seeking for major service delivery platforms. The predominant reasons for disruptions were intentional service delivery modifications (in 40% of countries) – such as temporary closures or postponement of services – and lack of health care resources (in 36% of countries) – such as challenges related to health worker availability and capacities, availability of essential medicines, diagnostics, vaccines or other health products, facility infrastructure and space capacities. Decreased care seeking due to community fear, mistrust, financial difficulties during lockdowns or other barriers to care was also commonly reported, most frequently for primary care services (in 36% of countries).

FIG. 8. Percentage of countries reporting reasons for service disruptions



Functional supply chain systems are critical to ensure that necessary health products are available in the right quantities for delivery of essential health services. Disruptions across supply chain systems can limit capacities across the continuum of care. Disruptions in the supply chain system were reported by 46% of countries (38 of 83) (see Figure 9, below). Looking at the three regions with sufficient responses, countries in the African Region and Region of the Americas were most likely to report disruptions to supply chain system: 59% (20 of 34) and 67% (12 of 33) of countries, respectively. Fewer countries in other regions reported supply chain system disruptions. Comparing responses over time (all countries responding to any round) shows that more countries reported supply chain system disruptions in Q4 2021 than Q1 2021.

FIG. 9. Percentage of countries reporting disruptions to supply chain system (Global, African region and region of the Americas)



Health systems and services responsiveness

Countries need to employ different tools and levers to address disruptions due to the COVID-19 pandemic and recover services to mitigate the impact on health as disruptions are sustained over the long-term. Country mitigation and recovery approaches may consist of intentional modifications to service delivery and essential public health functions or activities, mitigation strategies, updated policies and plans, improved monitoring and investment of additional resources to respond to the changing patterns of the pandemic. As many countries responded to the survey before the start of the Omicron wave, it is expected that the full extent of health systems response has not been captured. Still, survey responses show that all countries are taking action to ensure that health systems are responding to the rapidly changing COVID-19 context and additionally building towards longer-term health service recovery.

Strategic modifications to service delivery and essential public health functions

An important part of service disruptions can be attributed to intentional strategic changes to service delivery platforms and public health functions in the context of the pandemic. More than one-third of countries have limited or suspended mobile care (32 of 69 countries) community-based (38 of 88 countries), outpatient (38 of 88 countries), inpatient (35 of 89 countries) and primary care delivery platforms (31 of 92 countries) (see Figure 10, below). These policy measures were similar to Q1 2021. Only pre-hospital emergency care services show higher levels of modification compared to Q1 2021 (see Figure 11, below).

FIG. 10. Government policies in relation to service delivery platforms (n=95)

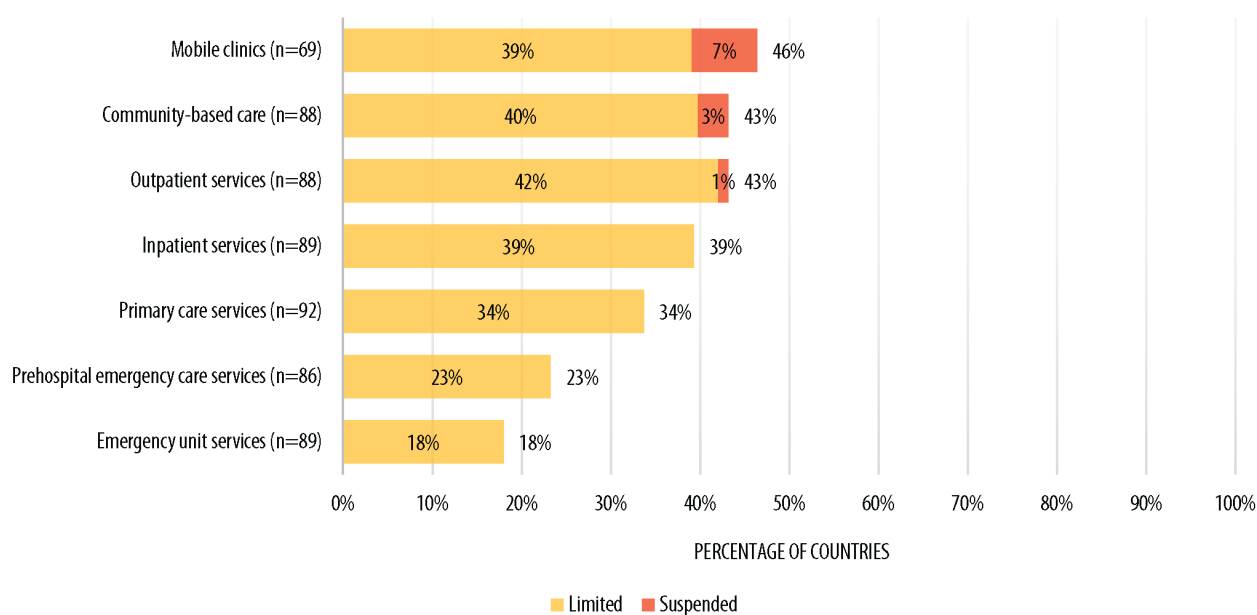
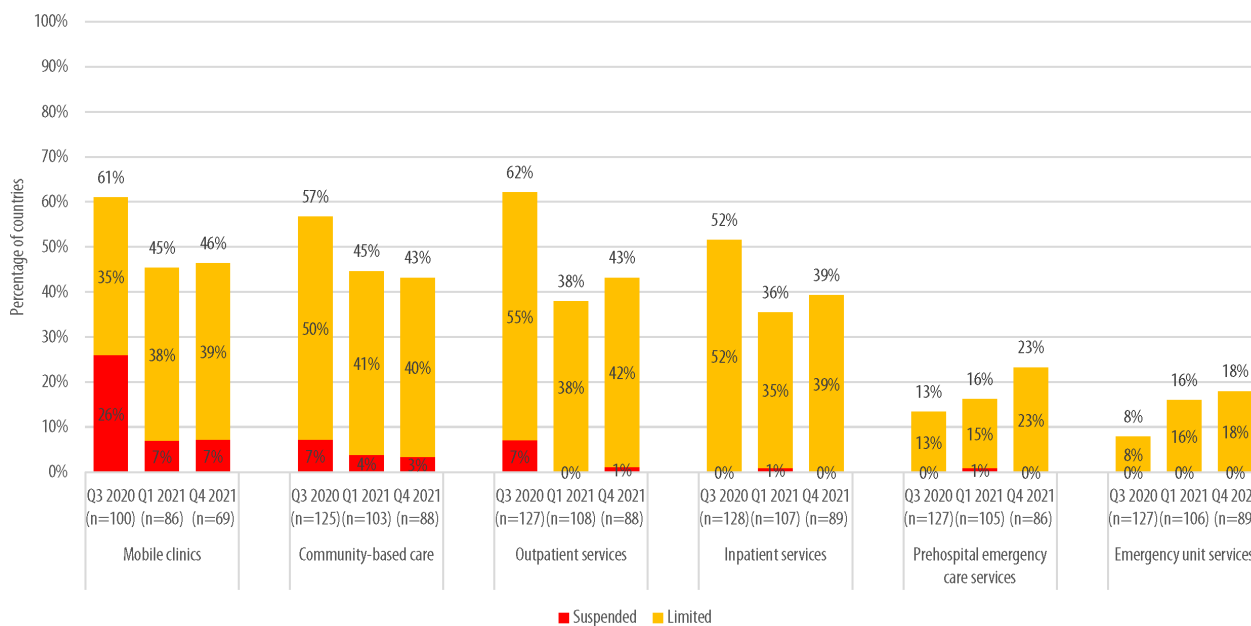


FIG. 11. Comparison of percentage of countries that limited or suspended service delivery platforms as a response to the COVID-19 pandemic: Q3 2020 (Round 1), Q1 2021 (Round 2) and Q4 2021 (Round 3)



Scaling back on essential public health functions and activities was also commonly reported: 40% or more countries have limited or suspended population-based disease prevention (49 of 92 countries), health promotion (45 of 91 countries) and public health research activities (37 of 84 countries) (see Figure 12, below). Scaling back of health protection activities increased in Q4 2021 compared to Q1 2021 (see Figure 13, below).

FIG. 12. Government policies in relation to essential public health functions and activities (n=95)

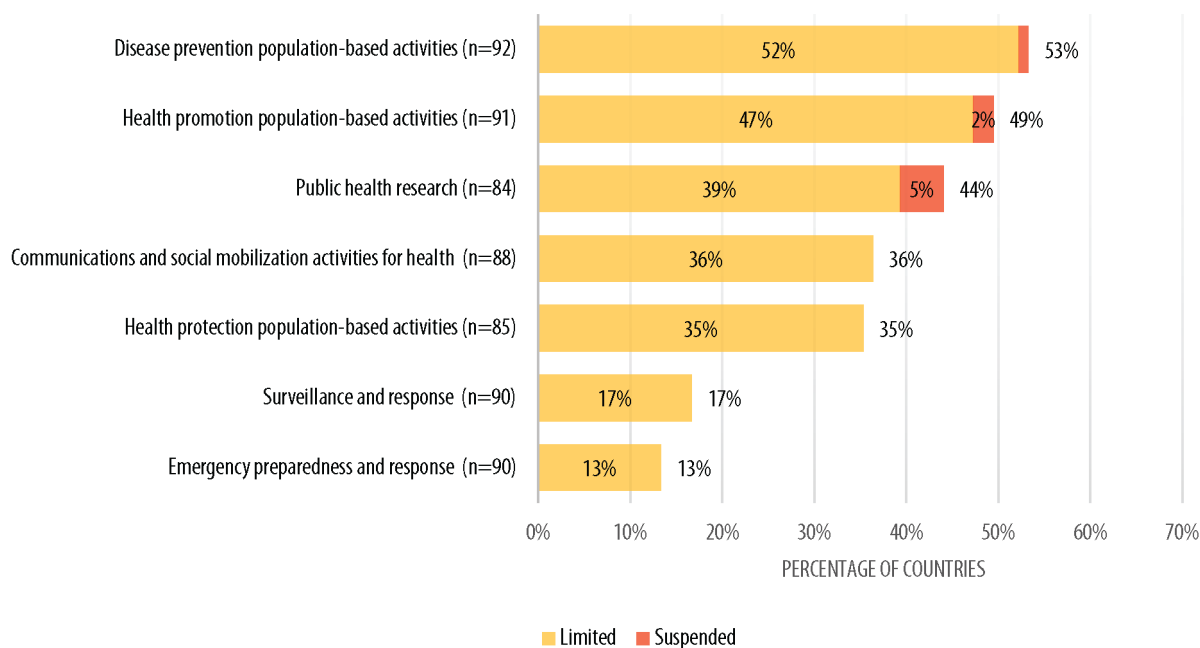
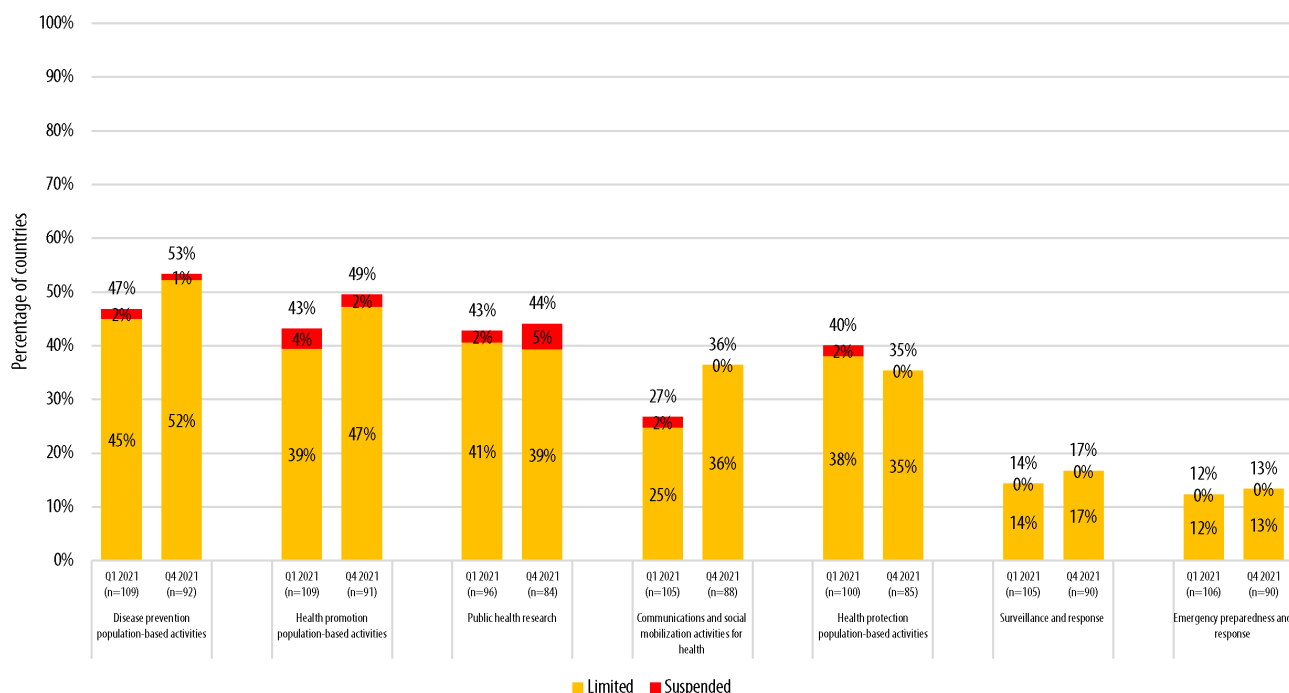


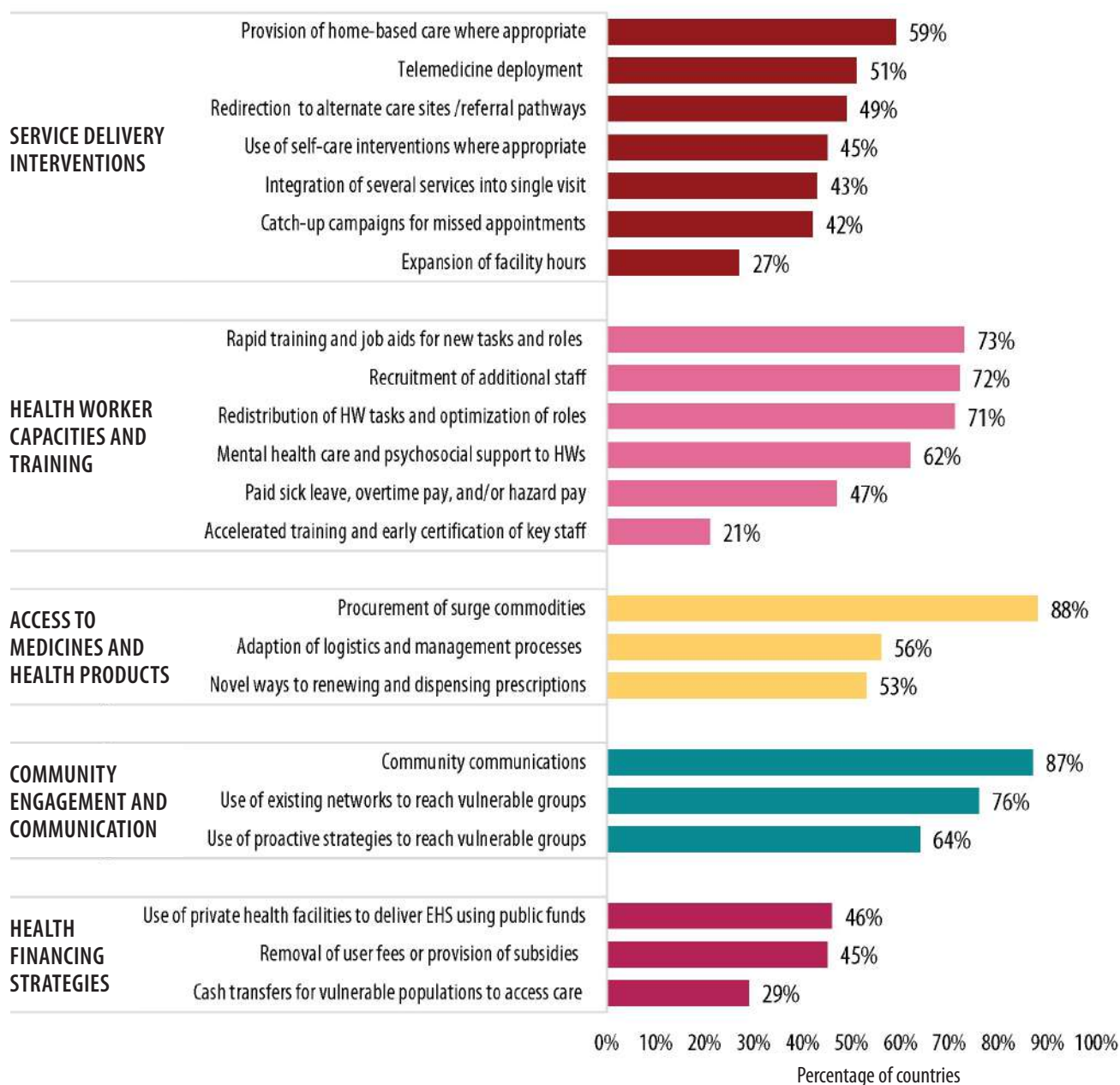
FIG. 13. Comparison of percentage of countries that limited or suspended essential public health functions or activities as a response to the COVID-19 pandemic: Q3 2020 (Round 1), Q1 2021 (Round 2) and Q4 2021 (Round 3)



Strategies to overcome disruptions and recover services

Countries are using varied strategies and innovations to overcome short-term service disruptions and recover services over the long term, including service delivery modifications (such as shifting to community-based care or telehealth consultations), health worker capacities and training, improving access to essential medicines and health products, community engagement and health financing strategies. Almost 90% of countries reported use of surge procurement of commodities (84 of 95 countries) and communication with communities (83 of 95 countries) as the top strategies (See Figure 14, below). Health workforce mitigation measures are also among the top strategies used to mitigate disruptions with more than 70% of countries (at least 67 of 95) applying some of these measures. About two-thirds of countries (61–72 of 95 countries) are implementing targeted approaches to ensure access to care for vulnerable groups.

FIG. 14. Approaches for overcoming service disruptions



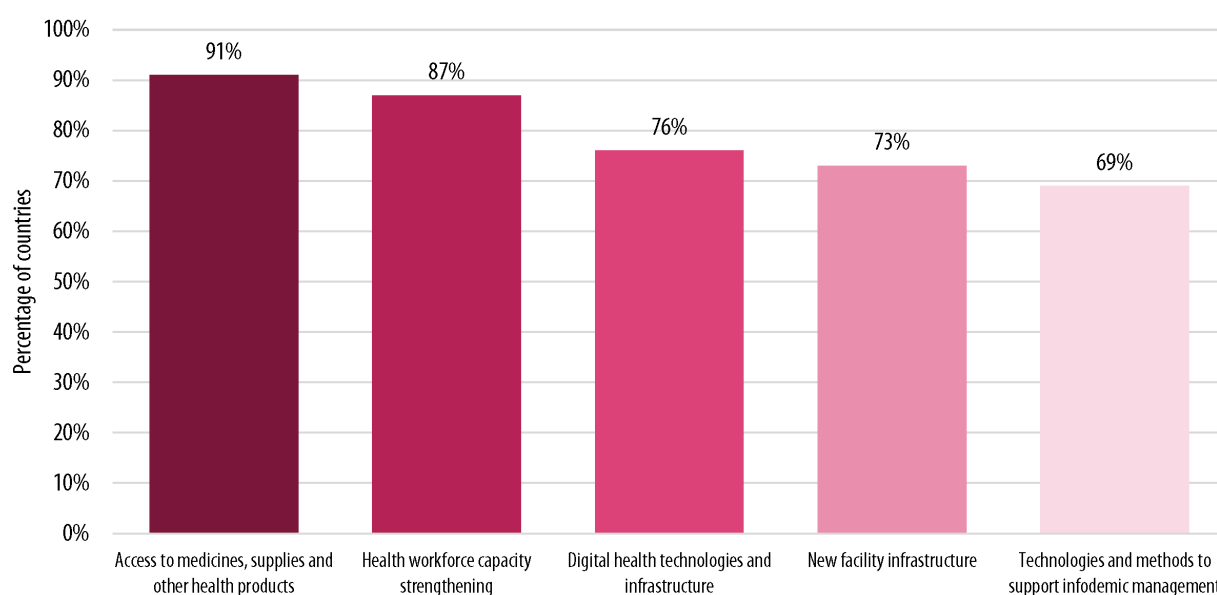
Policies and plans for continuity of essential health services and health system recovery

Most countries have established policies, plans and mechanisms to support the maintenance of essential health services during the COVID-19 pandemic. More than two-thirds (70%, 20 of 86) of countries have developed and/or revised policy or plans for continuity of essential health services during the COVID-19 pandemic, including 22% (19 of 86 countries) that updated the plans in the last six months. 73% of countries (61 of 83 countries) reported that they have allocated additional government funding for the maintenance of essential health services during the COVID-19 pandemic.

Half of countries (44 of 87 countries) developed or revised a health system recovery plan to strengthen health service resilience and preparedness for future public health emergencies. Another almost 40% of countries indicated that they were planning to develop a recovery plan.

Over two-thirds of the countries (55 of 79 countries) allocated additional government funding for longer-term health system recovery and/or health service resilience and preparedness (see Figure 15, below). Among the 55 countries that allocated funding, the most common areas of investment were access to medicines and supplies and health workforce capacity.

FIG. 15. Percentage of countries reporting investments for longer-term health system recovery and/or health service resilience and preparedness for future health emergencies (of the countries reporting any investments, n=55)



Information tracking

Most countries are monitoring and tracking information to support continuity of essential health services throughout the course of the pandemic, including for vulnerable groups. Out of 90 countries, 82 (91%) are regularly monitoring the continuity of essential health services in their context. Many reported specific monitoring of both service disruption mitigation strategies and long-term effects of essential health service disruptions. More than 90% of 91 countries (75) are collecting data on comorbidities in COVID-19 patients, while 59% of 68 countries (40) are collecting or collating patient-level data on post-COVID-19 condition and its sequelae. 59% (43 of 73 countries) are conducting focused equity analyses during the COVID-19 pandemic and have produced one or more qualitative or quantitative analysis of health inequities.

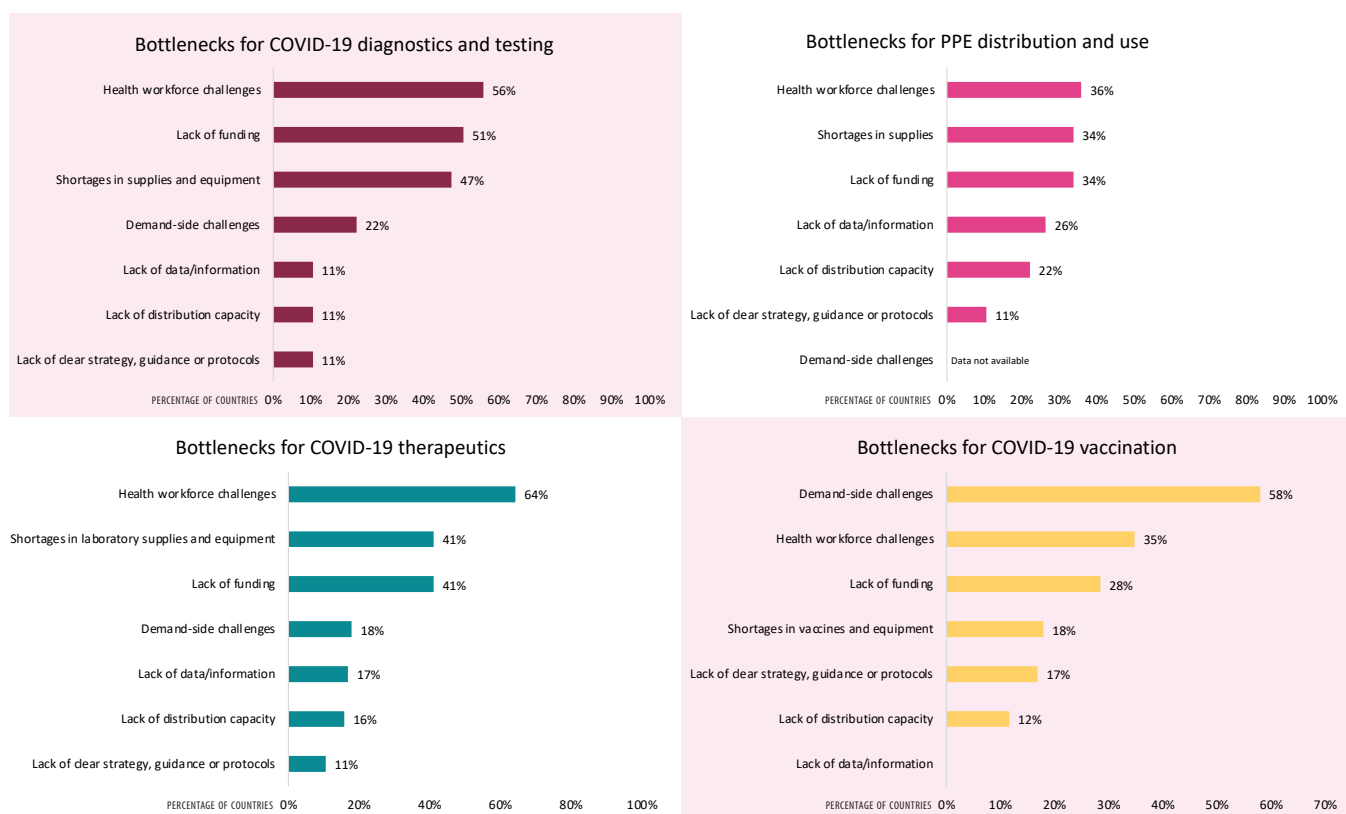
90% (74 of 82) responding countries reported capacities to track and address the infodemic and health misinformation during the pandemic.

Bottlenecks to implementation of essential COVID-19 tools

Access to essential COVID-19 tools – including COVID-19 diagnostics, COVID-19 therapeutics, personal protective equipment (PPE) and COVID-19 vaccines – is critical for health systems to respond to the COVID-19 pandemic and ensure continued access to care. However, 87 of 95 countries (92%) reported at least one bottleneck to scaling up access to one or more essential COVID-19 tools. Health workforce challenges were the most commonly cited bottleneck for therapeutics in 61 of 95 countries (64%); diagnostics and testing in 53 of 95 countries (56%); and PPE distribution and use in 34 of 95 countries (36%). Demand-side challenges were the most commonly cited bottleneck for COVID-19 vaccination, reported by 55 of 95 countries (58%) (see Figure 16, below).

Low- and middle-income countries reported greater bottlenecks to accessing COVID-19 tools. 21 high-income countries reported an average of 3.5 bottlenecks across all essential COVID-19 tools. While still a moderate sign of the extent of challenges health systems are facing to ensure COVID-19 tool access, the average number of bottlenecks reported in high-income countries was lower than that reported by 20 upper-middle income countries (7.5). In 36 lower-middle income countries 8.0 were reported, compared to 10.7 in 17 low-income countries.

FIG. 16. Bottlenecks to scale up access of essential COVID-19 tools (n=95)



Country priorities and technical assistance needs





Countries were asked to identify their most urgent technical assistance and intervention support needs for maintaining essential health services as well as ensuring access to essential COVID-19 tools.

In response to an open-ended question on priority needs for maintaining continuity of essential health services, 61 countries flagged 164 technical assistance and support needs, most frequently related to health workforce strengthening and protection, organization of models of care, availability of health products and health services monitoring capacities. All country-reported priority needs for maintaining essential health services related to the following areas:

- Health workforce strengthening and protection (26 country needs)
- Models of care, including service package selection and service delivery planning, design, organization and management and organization (25 country needs)
- Availability of essential medicines, diagnostics, vaccines and other health products at central and facility levels (19 country needs)
- Health services monitoring and evaluation capacities (17 country needs)
- Governance, policy and planning guidance for continuity of essential services (14 country needs)
- Financial planning and funding support (12 country needs)
- Availability of PPE (7 country needs)
- Risk communications and community engagement (6 country needs)
- Infection prevention and control guidance for health providers (5 country needs)
- Digital and telehealth technologies (4 country needs)
- Governance, policy and planning guidance for long-term health service resilience and preparedness (4 country needs)
- Diagnostic and laboratory capacities (4 country needs)
- Documentation and learning of best practices for continuity of essential health services (4 country needs)
- Clinical care guidelines (4 country needs)
- Facility infrastructure (3 country needs)
- Supply chain management (2 country needs)
- Private sector engagement in service delivery (2 country needs)
- Research and development (2 country needs)
- Advocacy support (2 country needs)
- Quality of care (1 country need)
- Logistics (1 country need)

The most commonly cited technical support priority needs for ensuring access to essential COVID-19 tools were similar to those most frequently reported for continuity of essential health services, and mirror the aforementioned bottlenecks that were most commonly reported by countries. Health worker recruitment, retention and training, surge procurement for availability of essential COVID-19 tools, financial planning and risk communication and community engagement were the most common areas of technical assistance identified by countries (see Figure 17, below). These health system areas are also a main focus of frequently reported strategies being used to overcome service disruptions.

FIG. 17. Priority technical assistance and intervention support needs for scaling up access to essential COVID-19 tools (n=95)

| Technical assistance and intervention support needs | Essential COVID-19 tools | | | |
|--|---|---|---|---|
| | Diagnostic and testing  | Therapeutics  | PPE distribution and use  | COVID-19 vaccination  |
| Health worker recruitment, retention and training | 49% | 61% | 35% | 31% |
| Surge procurement of essential COVID-19 tools | 36% | 45% | 28% | 20% |
| Financial planning support | 45% | 35% | 28% | 24% |
| Risk communications and community engagement strategies | 27% | 19% | | 51% |
| Rapid tools or guidance to assess and monitor gaps and health system absorption capacities | 20% | 19% | 31% | 26% |
| Guidance on developing policies/strategies | 16% | 24% | 20% | 17% |
| Operational guidance and protocols for supply chain management | 16% | 13% | 26% | 7% |

Conclusions

Two years into the pandemic, there is an expectation for health systems to be in various stages of recovery or transition beyond the acute phase of the COVID-19 pandemic. However, results from the third round of the *Global pulse survey on the continuity of essential health services during the COVID-19 pandemic* survey suggest this is not the case, and that COVID-19 continues to challenge health systems and disrupt essential health services in almost all countries across the globe. At the same time that countries are struggling to maintain essential health services, they are also facing critical bottlenecks to scaling up essential COVID-19 tools, which are vital if countries are to reach an endemic phase.

Despite the ongoing and persistent health system challenges that have been further exacerbated by the pandemic, countries are adopting short-term strategies and innovations, to not only overcome disruptions and recover services, but also to solve bottlenecks to scale up of essential COVID-19 tools. They are also devising longer-term strategies and making important investments to build health service resilience and strengthen their preparedness for future health emergencies.

Still, further action is needed to mitigate the long-term impact on health and well-being as these disruptions are sustained over the long term. WHO is currently leading modelling efforts to estimate the immediate and lasting consequences of these essential health service disruptions on health outcomes (forthcoming). Documentation and learning from national levels to points of care on the best strategies and approaches for catching up and restoring services, reducing the impact of prolonged disruptions, overcoming bottlenecks to scale up essential COVID-19 tools and building longer-term health service resilience and preparedness are also needed to help countries as they begin to transition to a recovery phase.

In the context of the COVID-19 pandemic, WHO's mission is to continue to support countries as they respond to the increased strains being placed on health systems, while ensuring continued access to high-quality care during and beyond the COVID-19 pandemic.

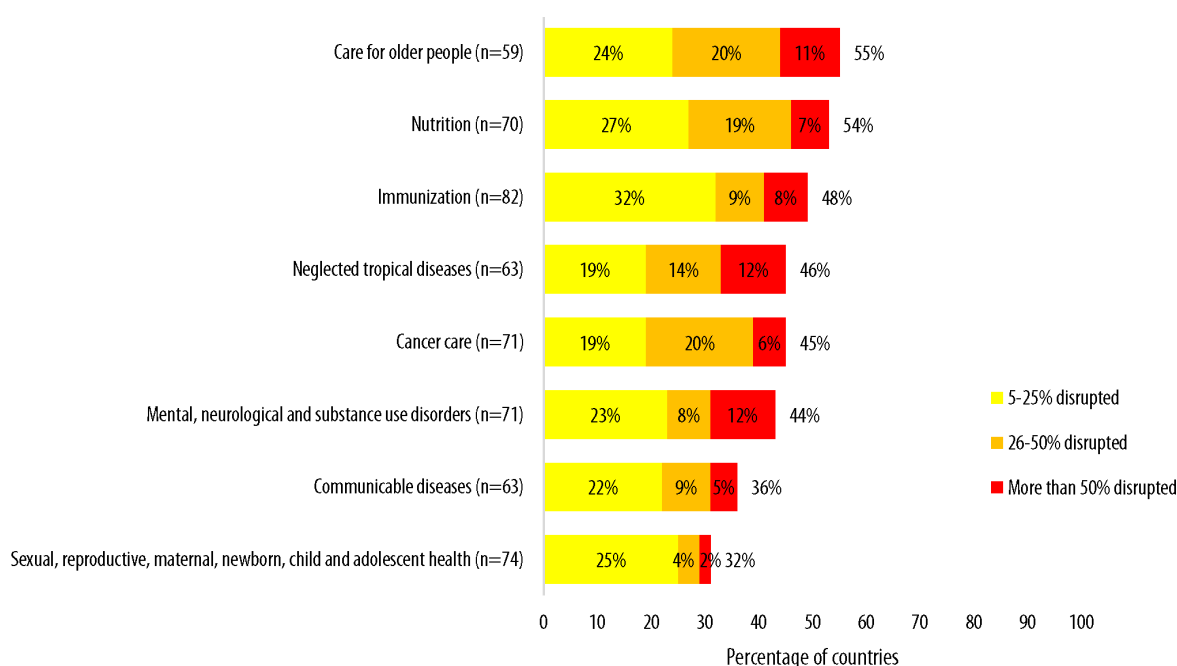
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Annex 1: Service disruptions to condition- and programme-specific tracer health service areas

Countries continue to report disruptions across all major tracer service areas across the life course (see figure A1, below), ranging from about one-third of countries reporting disruption to sexual, reproductive, maternal, newborn, child and adolescent health to over half of countries reporting disruptions to care for older people.

FIG. A1. Service disruptions by tracer service area



Analysis of disruptions over time was limited to 95 countries that responded to all three survey rounds on services that were included in multiple rounds of the survey. The specific questions answered in each round may have differed, and therefore, the denominators may not be consistent across services and across the three rounds.

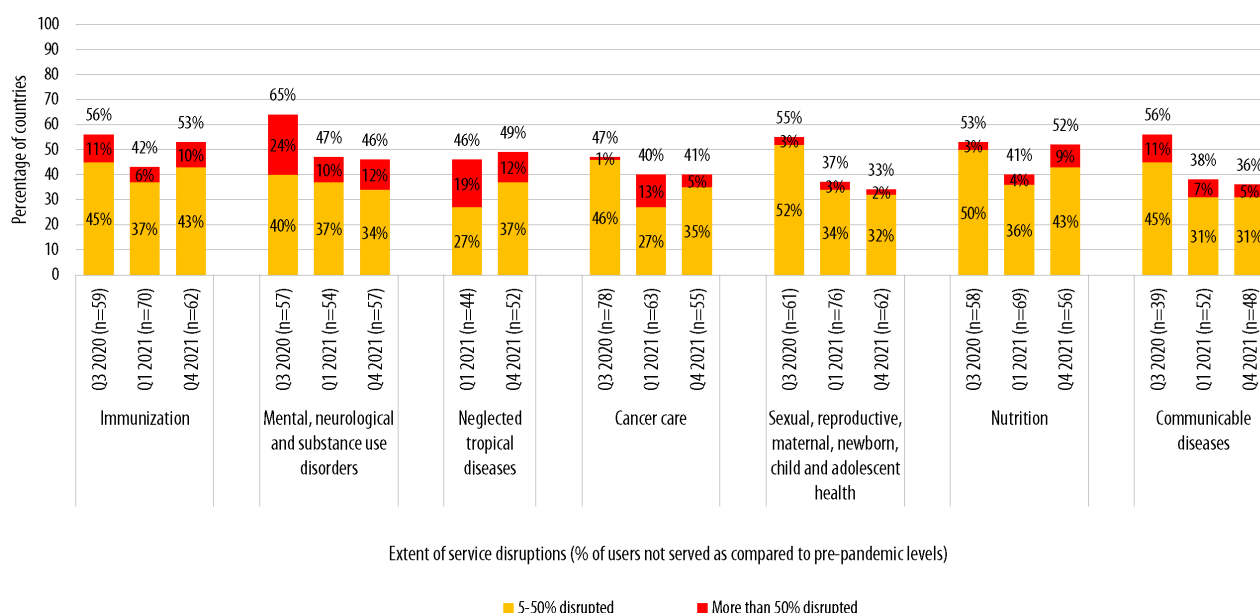
Services included in multiple survey rounds on which analyses of trends over time were conducted are listed below:

- Sexual, reproductive, maternal, newborn, child and adolescent health (SRMNCAH) services: family planning and contraception; antenatal care; facility-based births; sick child services; postnatal care for women and newborns
- Nutrition: screening for and/or management of moderate and severe wasting
- Immunization services: facility-based routine immunization; and outreach routine immunization

- Communicable disease services: human immunodeficiency virus (HIV) prevention services, human immunodeficiency virus (HIV) testing services, continuation of established antiretroviral (ARV) treatment, initiation of new antiretroviral (ARV) treatment, hepatitis B and C diagnosis and treatment, TB diagnosis and treatment, malaria diagnosis and treatment; insecticide-treated nets (ITN) malaria prevention campaigns; indoor residual spraying (IRS) malaria prevention campaigns; and seasonal malaria chemoprevention (SMC) malaria prevention campaigns
- Cancer care: cancer diagnosis and treatment; cancer screening
- Mental, neurological and substance use disorders (MNS) services: management of emergency MNS manifestations, psychotherapy/counseling/psychosocial interventions for MNS disorders, availability of psychotropic medicines for management of MNS disorders, services for children and adolescents with mental health conditions or disabilities, services for older adults with mental health conditions or disabilities, neuroimaging and neurophysiology, school mental health programme, suicide prevention programme, substance use prevention and management programmes, critical harm reduction services (e.g. needle exchange programmes, outreach services)
- Neglected tropical disease services (NTDs): diagnosis, treatment and care for NTDs (facility-based), large-scale preventive chemotherapy campaigns for NTDs, community awareness and health education campaigns for NTDs, support for self-care, rehabilitation and psychosocial services for patients with chronic NTDs, prescriptions for NTD medicines, surgical procedures for NTDs.

Condition- and programme-specific tracer services continue to be disrupted (see Figure A2, below).

FIG. A2. Comparison of disruptions by tracer services in countries that responded to all three survey rounds: Q3 2020 (Round 1), Q1 2021 (Round 2) and Q4 2021 (Round 3)



Service disruptions in Q4 2021 and trends for condition- and programme-specific tracer health areas

Disruptions in services for sexual, reproductive, maternal, newborn, child and adolescent health

FIG. A3. Percentage of countries reporting disruptions in sexual, reproductive, maternal, newborn, child and adolescent health services in Q4 2021

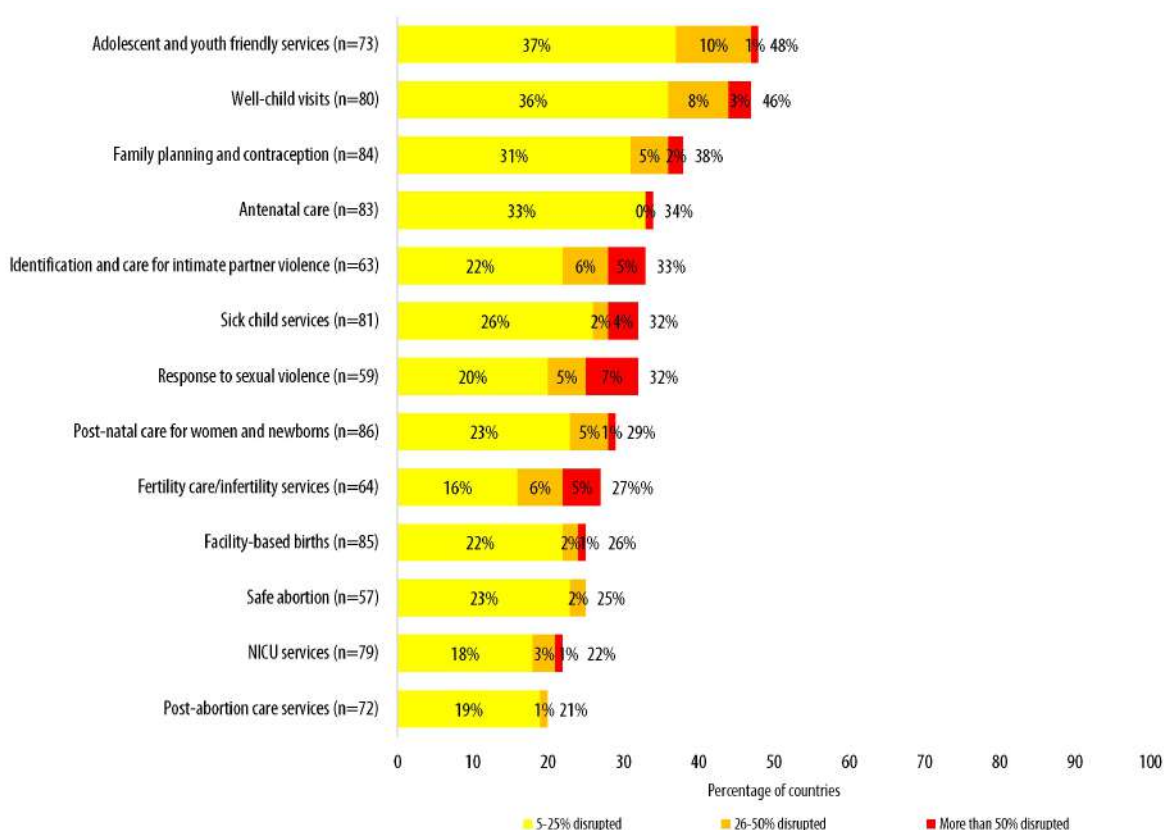


FIG. A4. Comparison of disruptions for sexual, reproductive, maternal, newborn, child and adolescent health services in countries that responded to all three survey rounds: Q3 2020 (Round 1), Q1 2021 (Round 2) and Q4 2021 (Round 3)

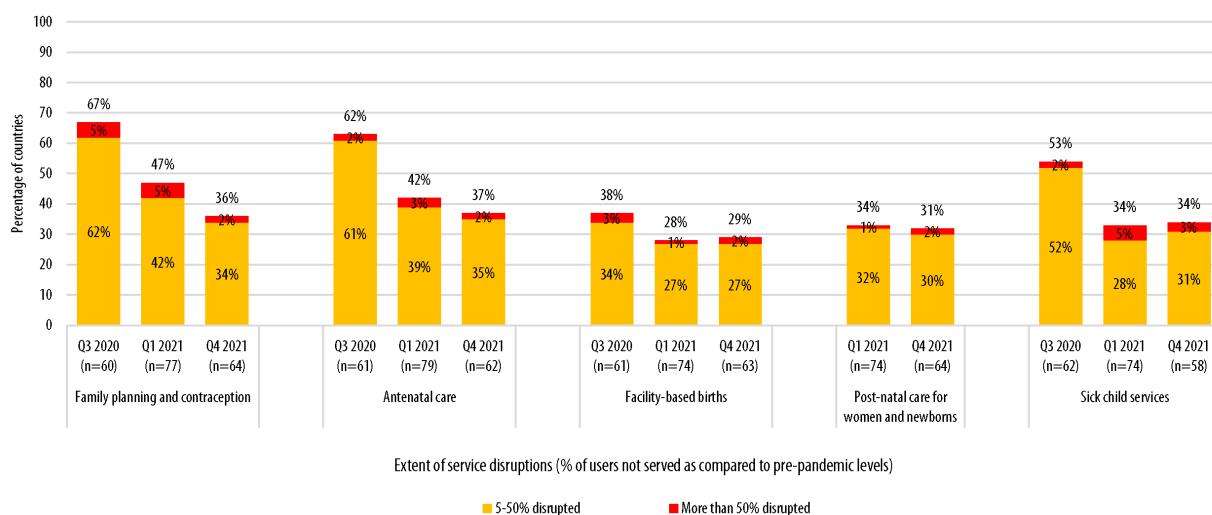
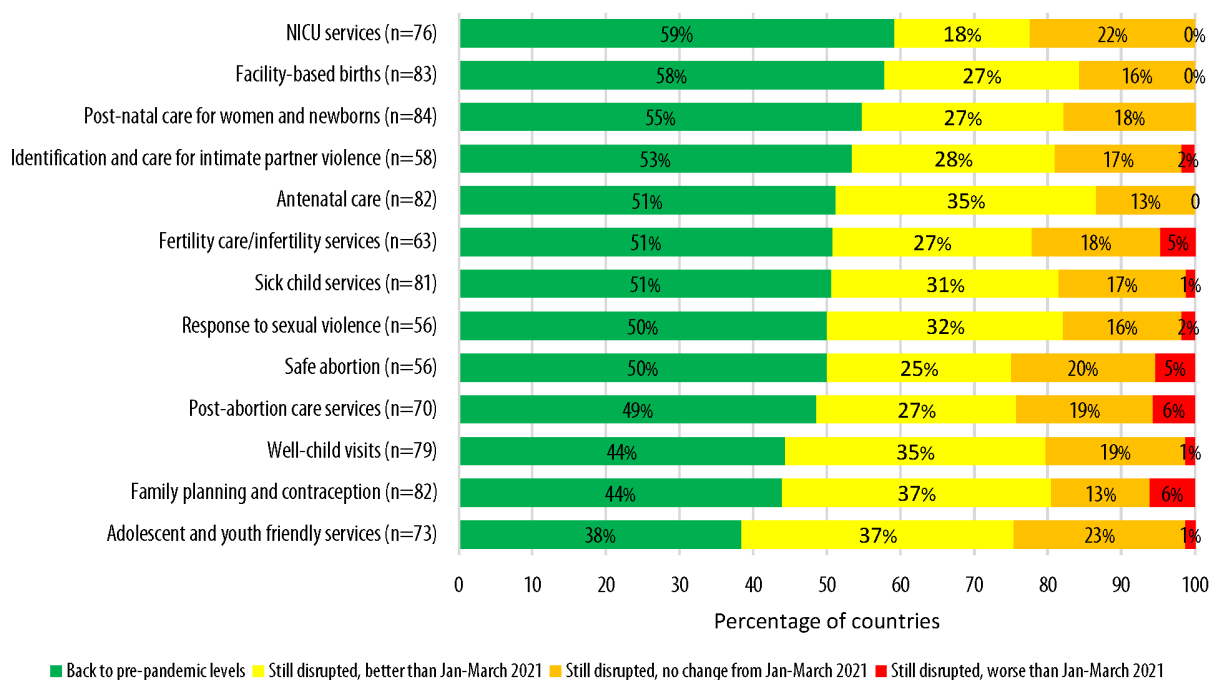


FIG. A5. Perceptions of levels of disruption and recovery in sexual, reproductive, maternal, newborn, child and adolescent health services as compared to Q1 2021



Disruptions in nutrition services

FIG. A6. Percentage of countries reporting disruptions in nutrition services in Q4 2021

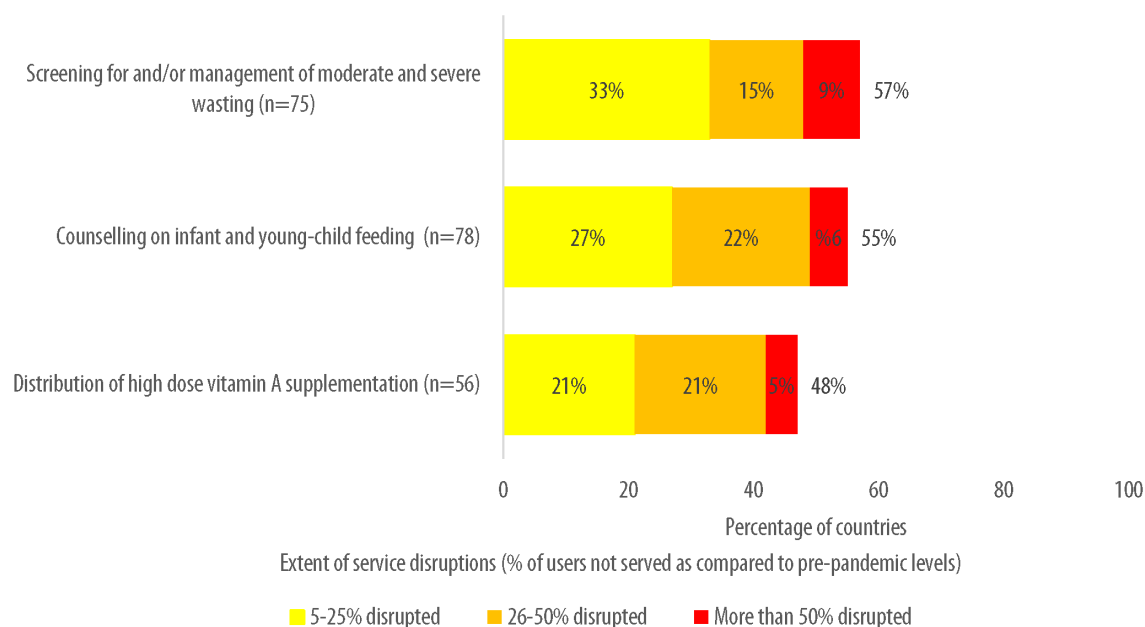


FIG. A7. Comparison of disruptions for screening for and/or management of moderate and severe wasting in countries that responded to all three survey rounds: Q3 2020 (Round 1), Q1 2021 (Round 2) and Q4 2021 (Round 3)

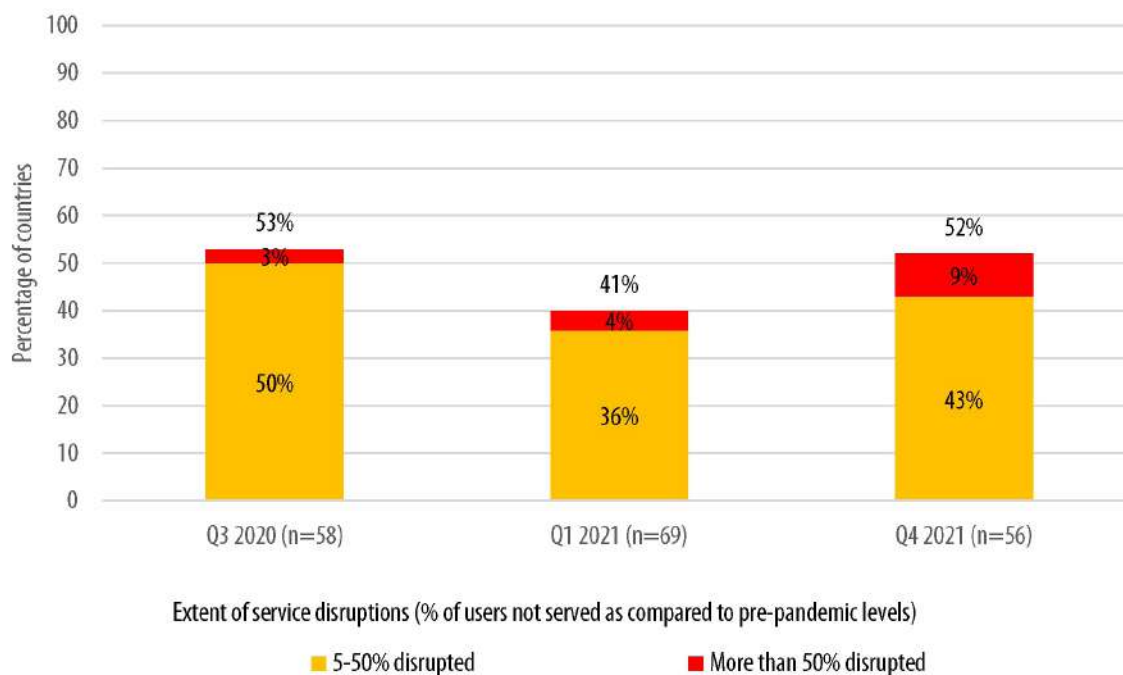
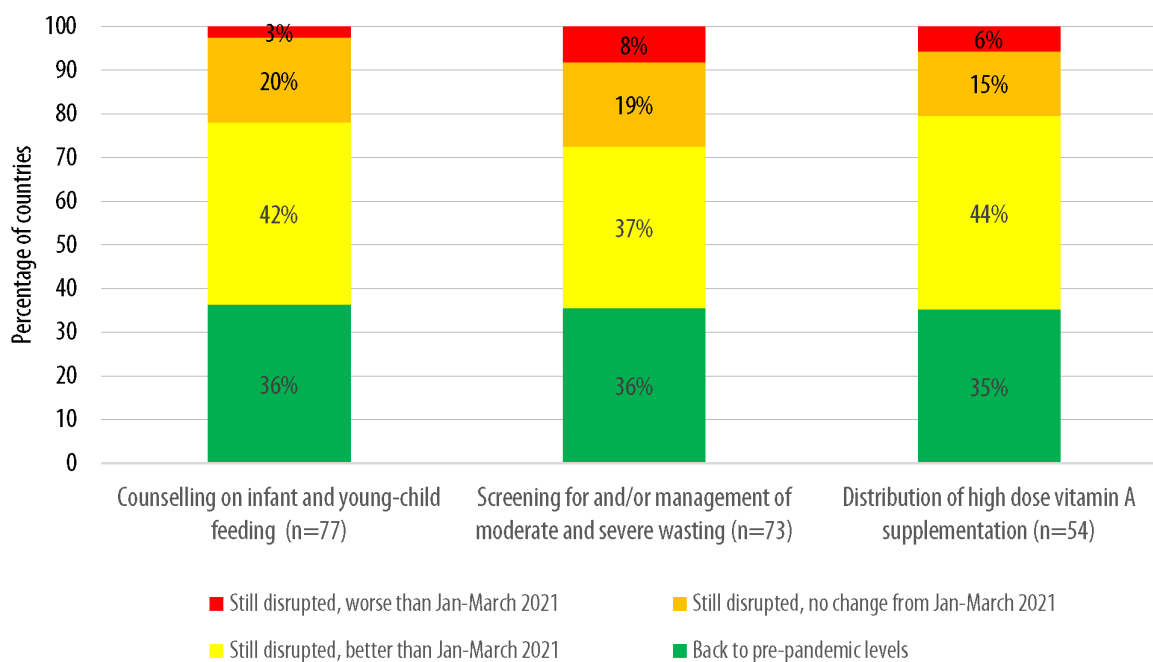


FIG. A8. Perceptions of levels of disruption and recovery in nutrition services as compared to Q1 2021



Disruptions in routine immunization services

FIG. A9. Percentage of countries reporting disruptions in routine immunization services in Q4 2021

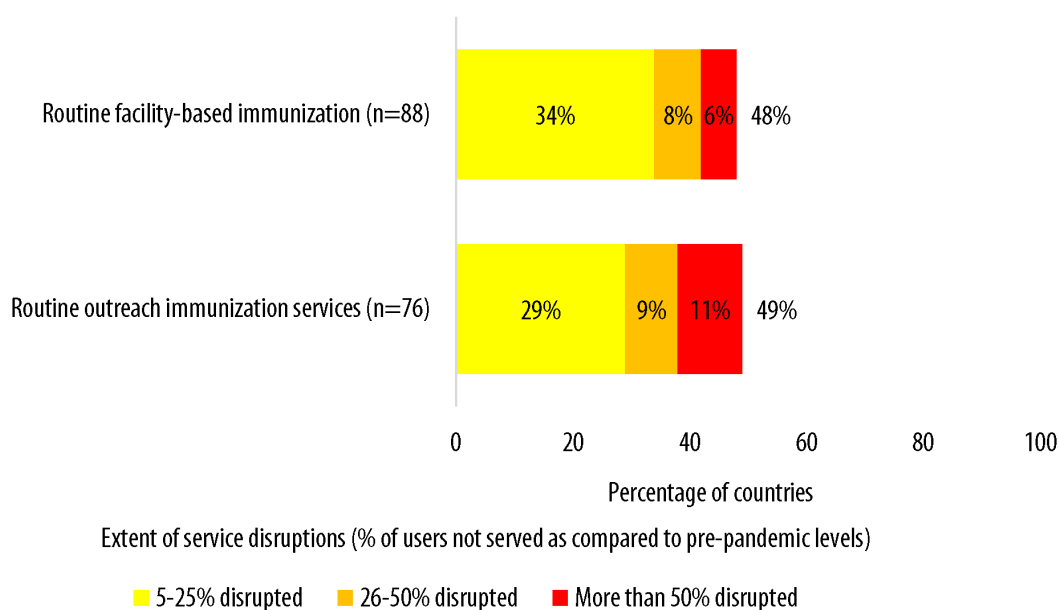
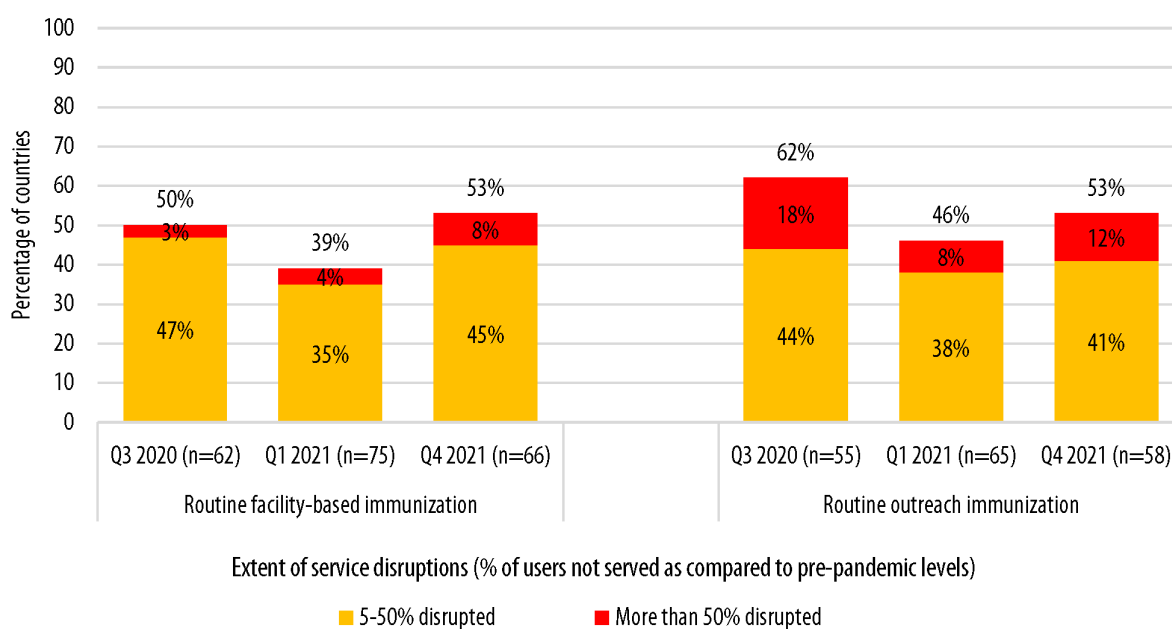
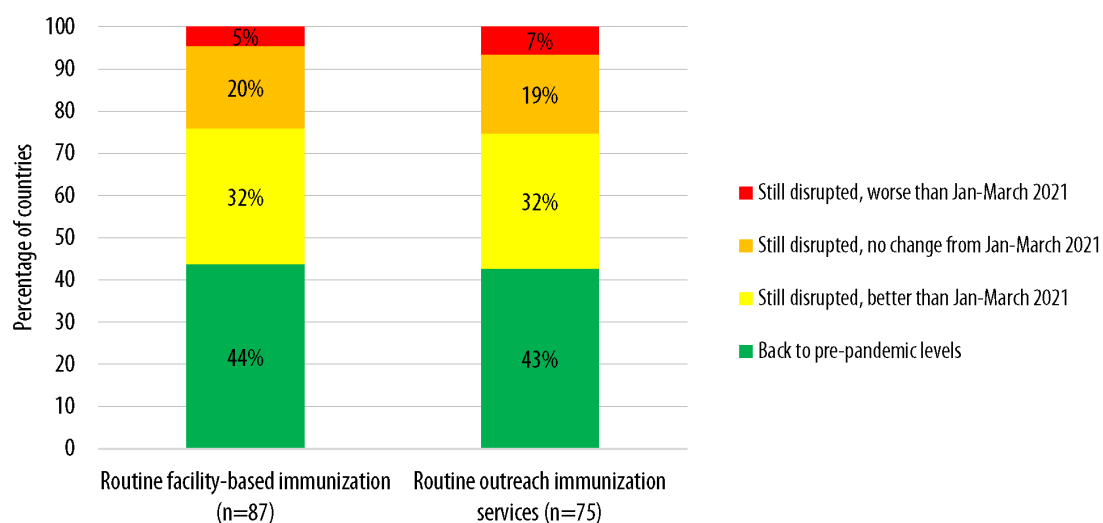


FIG. A10. Comparison of disruptions for routine immunization services in countries that responded to all three survey rounds: Q3 2020 (Round 1), Q1 2021 (Round 2) and Q4 2021 (Round 3)



Note: The percentage of countries reporting disruptions to immunization services must be interpreted with caution. Reported levels of disruption in the first two pulse surveys did not seem to correlate with net annual vaccination coverage levels achieved for 2020.

FIG. A11. Perceptions of levels of disruption and recovery in immunization services as compared to Q1 2021



Disruptions in services for mental, neurological and substance use disorders

FIG. A12. Percentage of countries reporting disruptions in services for mental, neurological and substance use disorders in Q4 2021

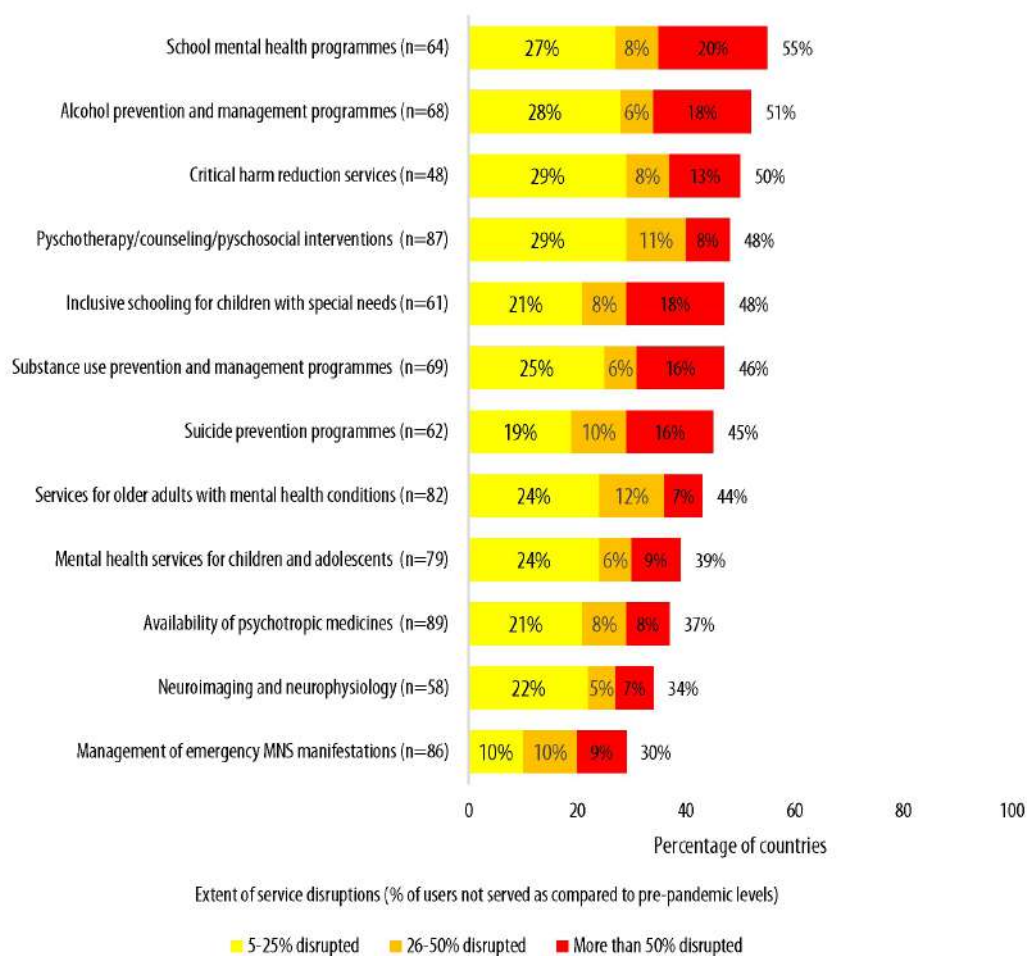


FIG. A13. Comparison of disruptions in services for mental, neurological and substance use disorders in countries that responded to all three survey rounds: Q3 2020 (Round 1), Q1 2021 (Round 2) and Q4 2021 (Round 3)

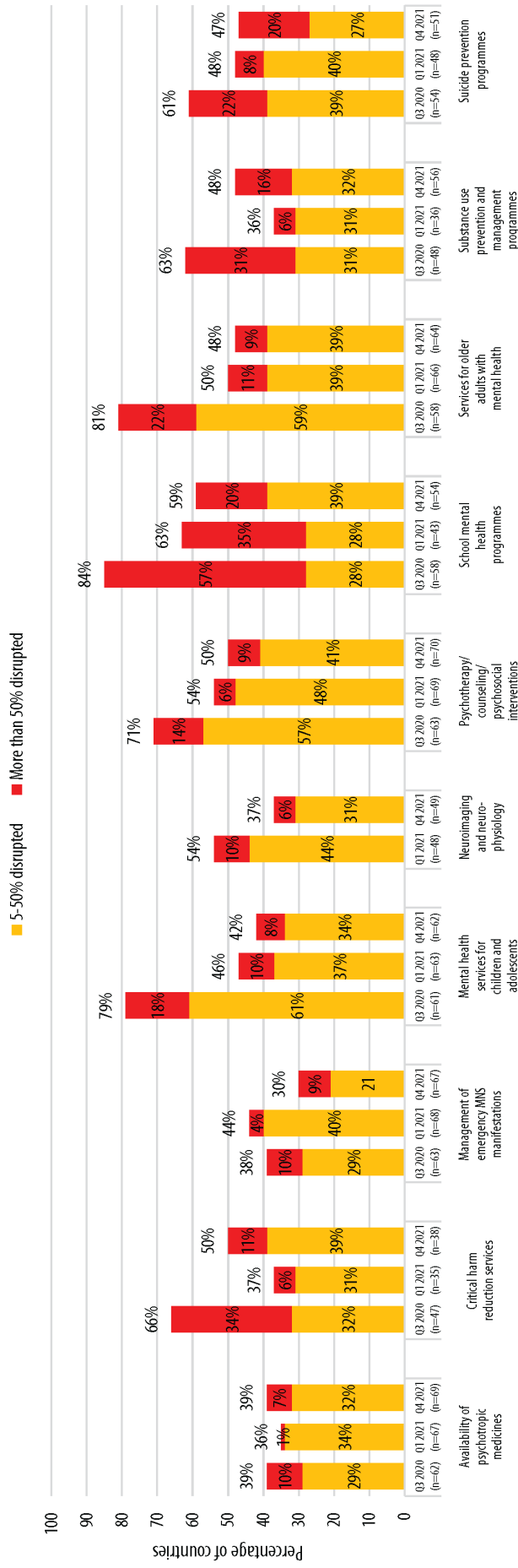
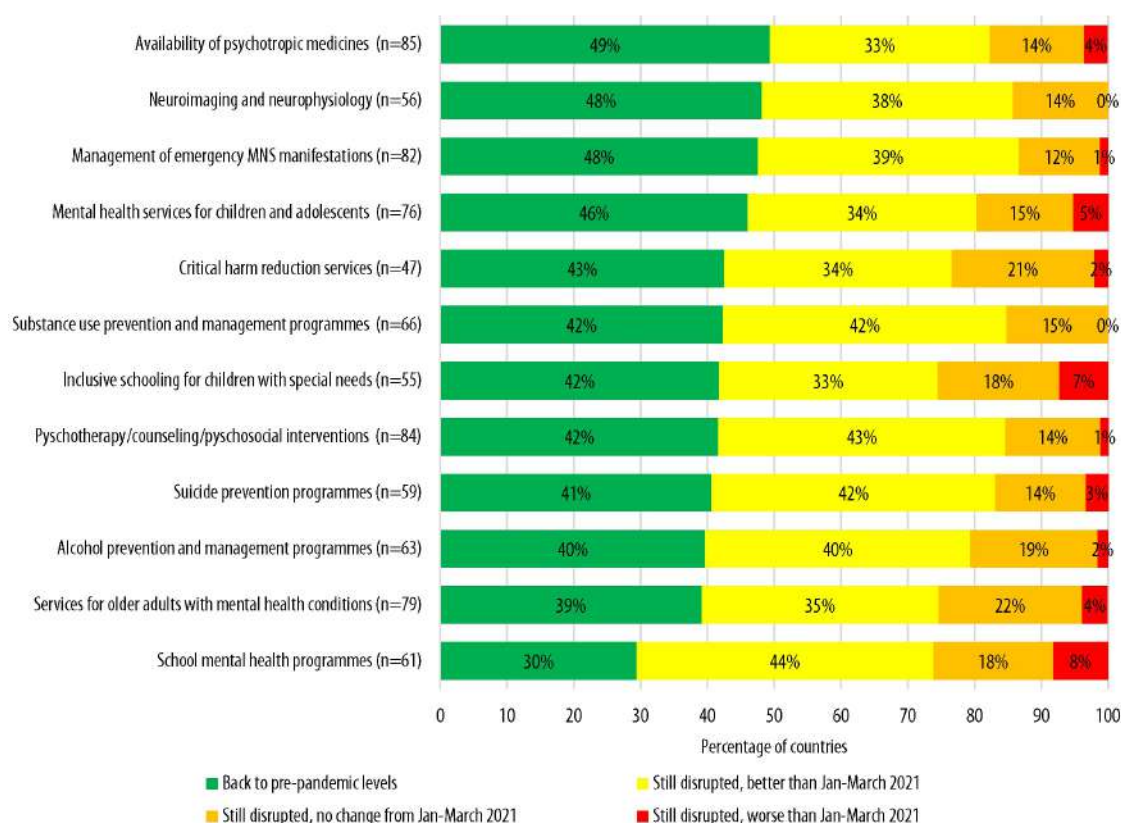


FIG. A14. Perceptions of levels of disruption and recovery in mental, neurological, and substance use disorder services as compared to Q1 2021



Disruptions in services for communicable diseases: Tuberculosis, HIV, hepatitis and malaria

FIG. A15. Percentage of countries reporting disruptions in services for communicable disease in Q4 2021

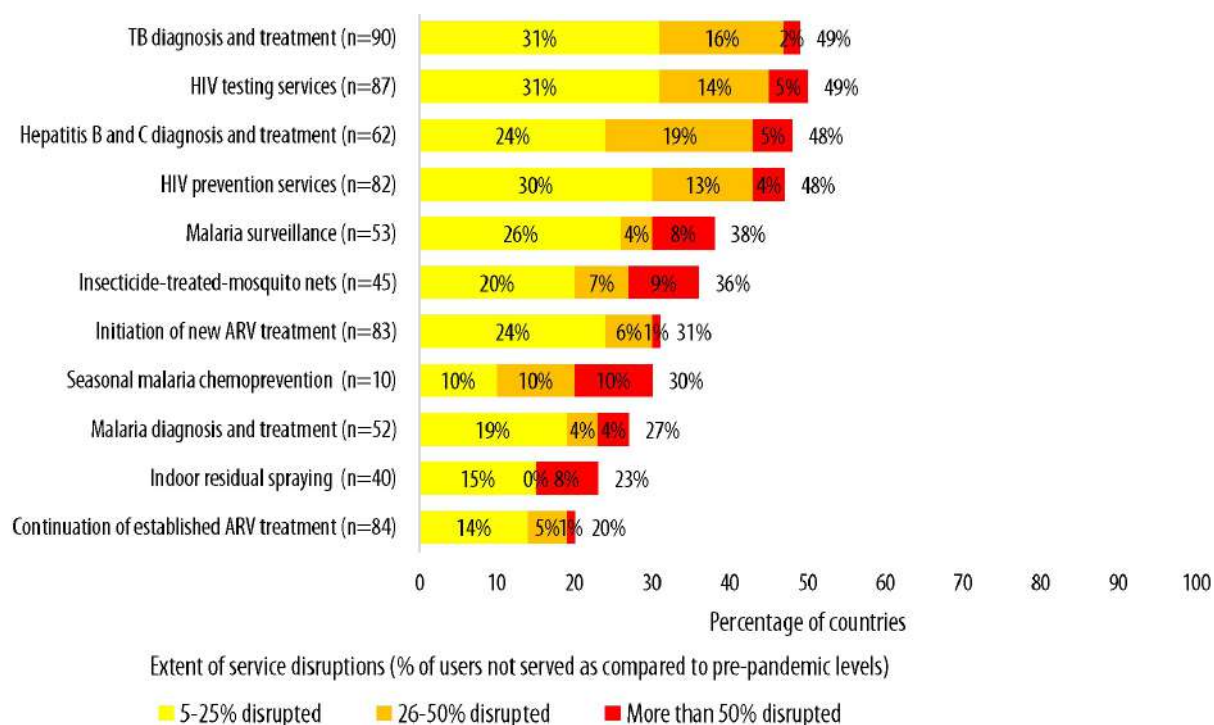
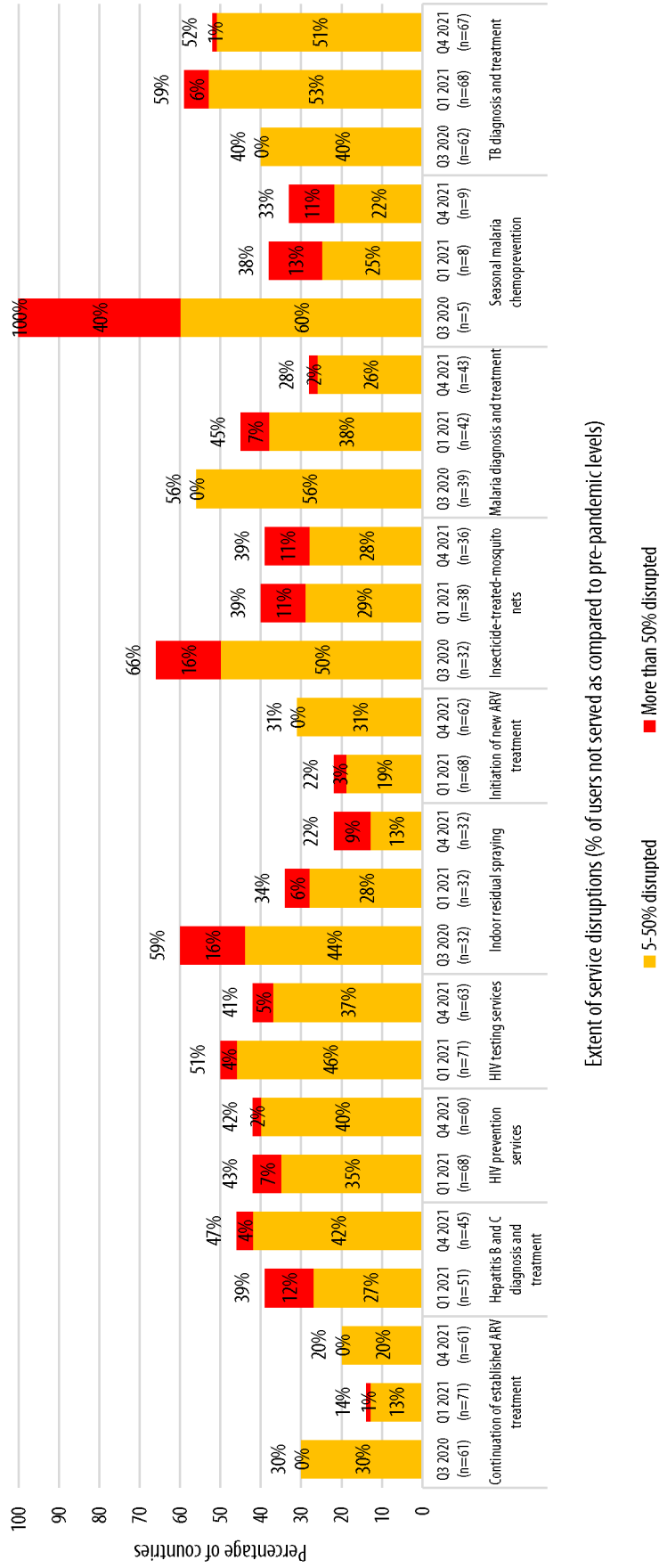


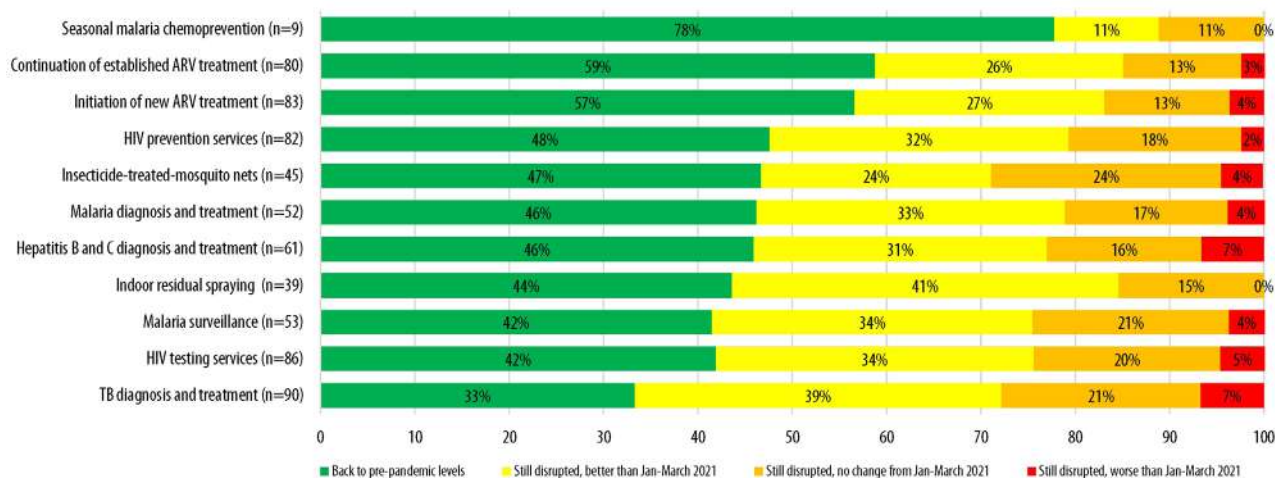
FIG. A16. Comparison of disruptions services for communicable diseases in countries that responded to all three survey rounds: Q3 2020 (Round 1), Q1 2021 (Round 2) and Q4 2021 (Round 3)



Extent of service disruptions (% of users not served as compared to pre-pandemic levels)

■ 5-50% disrupted ■ More than 50% disrupted

FIG. A17. Perceptions of levels of disruption and recovery in communicable disease (TB, HIV, hepatitis and malaria) services as compared to Q1 2021



Disruptions in services for neglected tropical diseases

FIG. A18. Percentage of countries reporting disruptions in services for neglected tropical diseases in Q4 2021

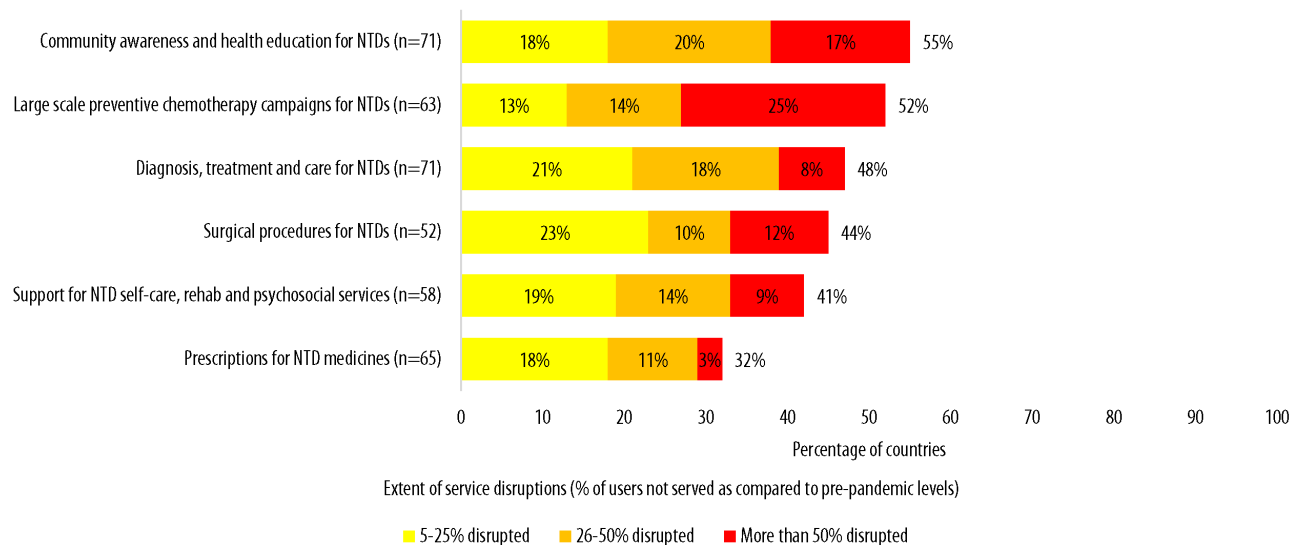


FIG. A19. Comparison of disruptions to services for neglected tropical disease in countries that responded to all three survey rounds: Q3 2020 (Round 1), Q1 2021 (Round 2) and Q4 2021 (Round 3)

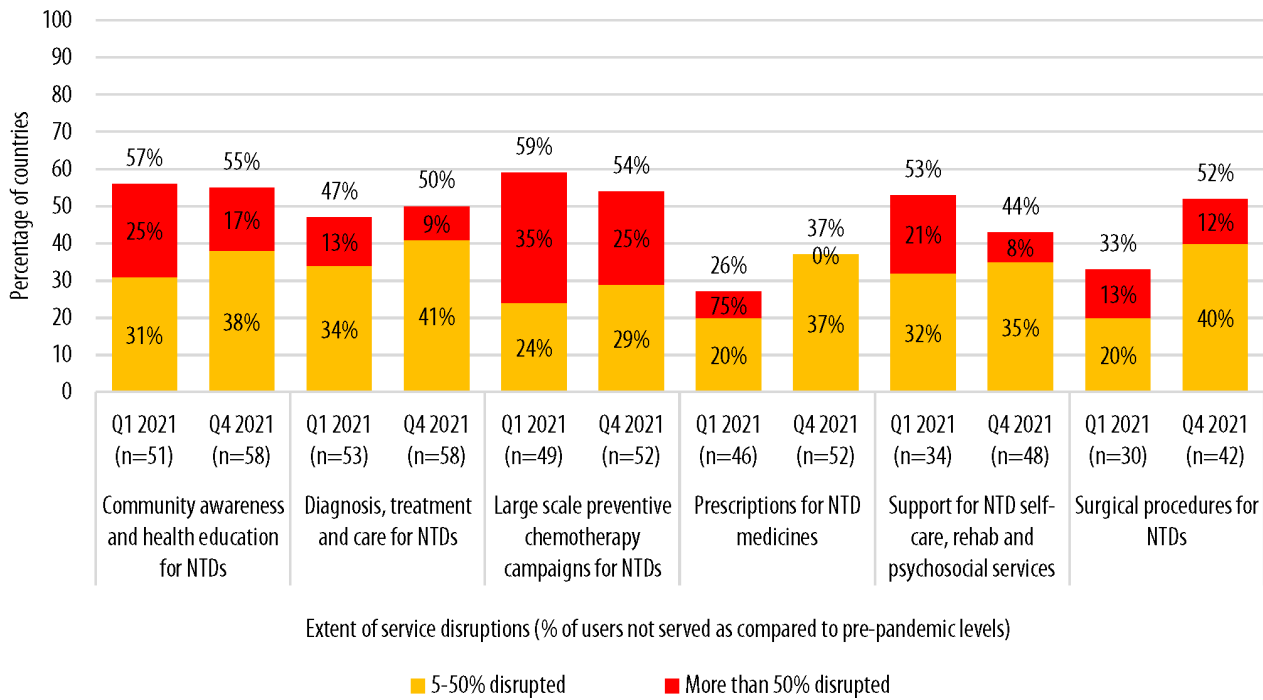
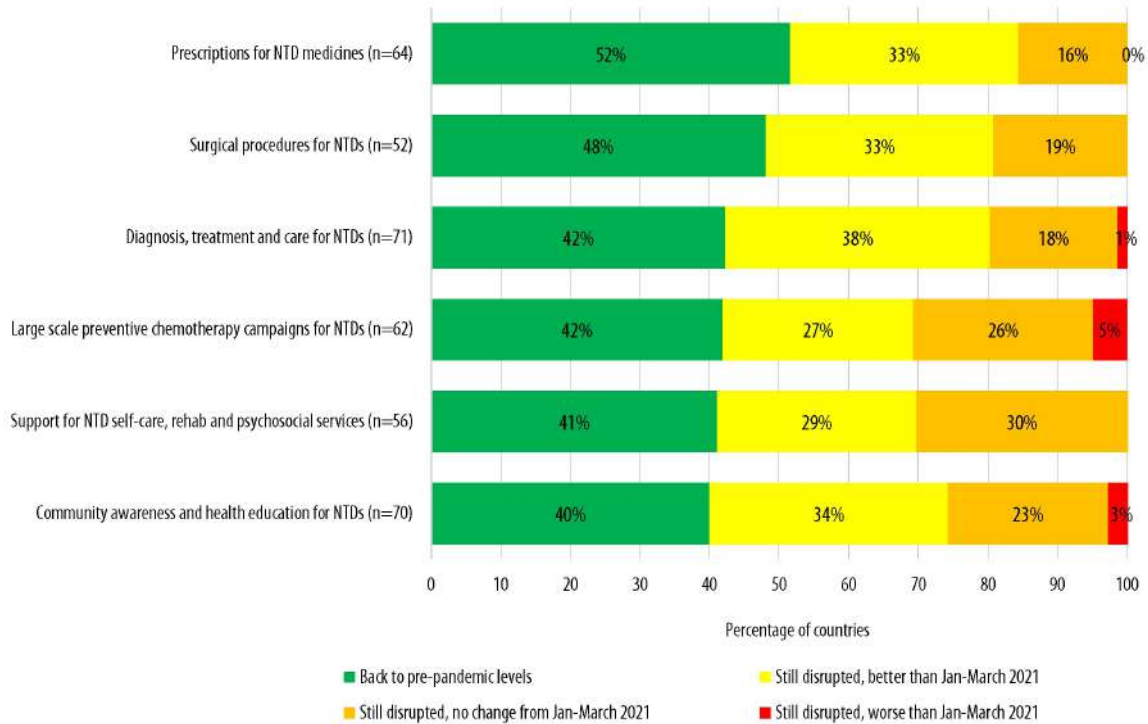


FIG. A20. Perceptions of levels of disruption and recovery in neglected tropical disease (NTD) services as compared to Q1 2021



Disruptions in services for care for older people

FIG. A21. Percentage of countries reporting disruptions in services for care for older people in Q4 2021

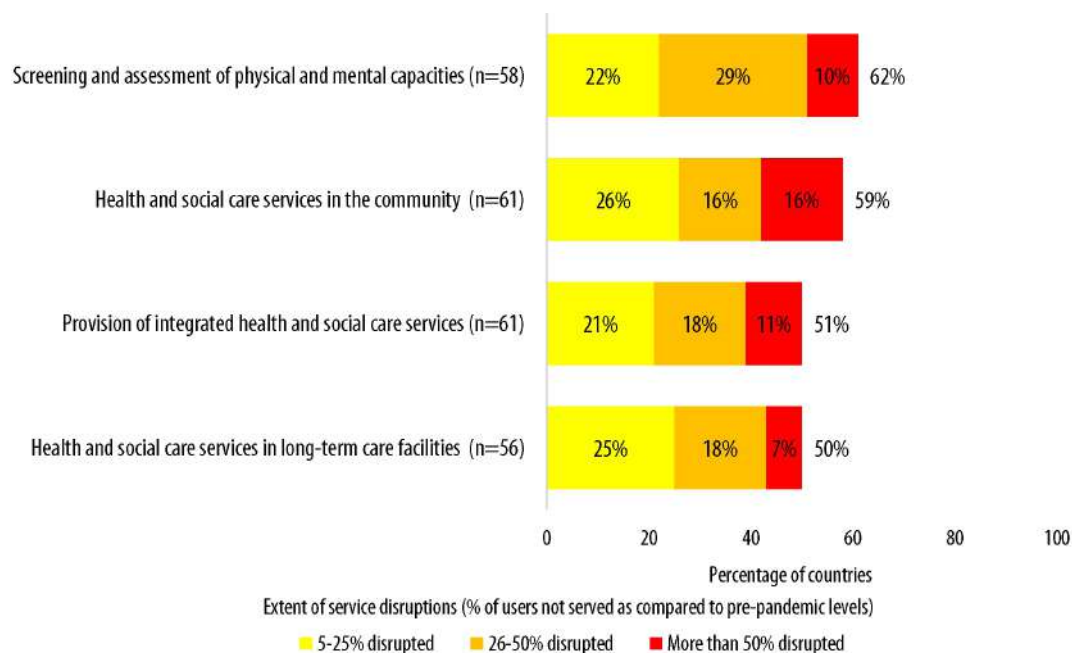
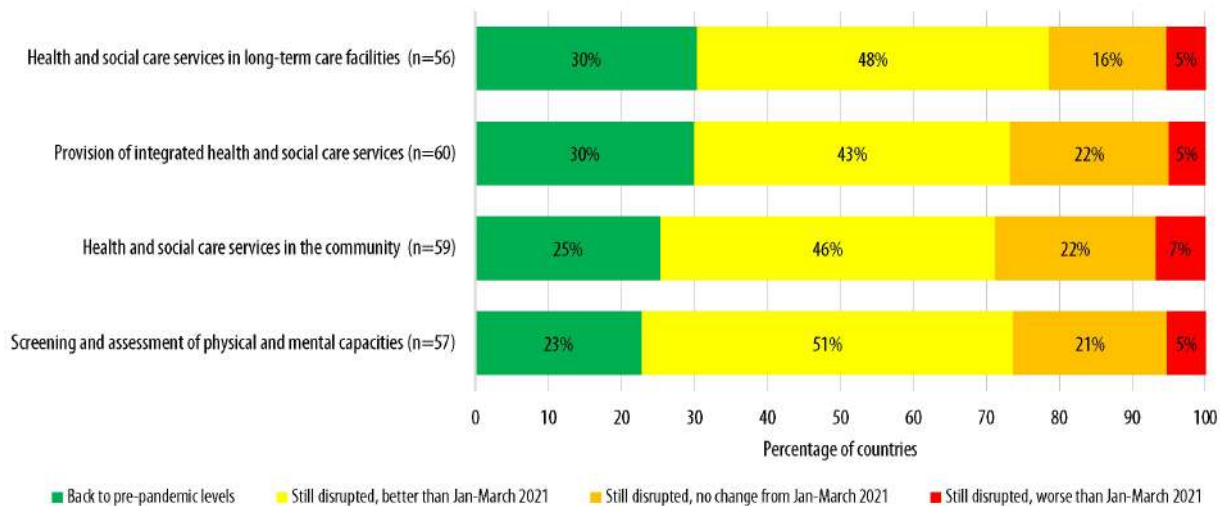


FIG. A22. Perceived level of disruption compared to Q1 2021 across services for older people care

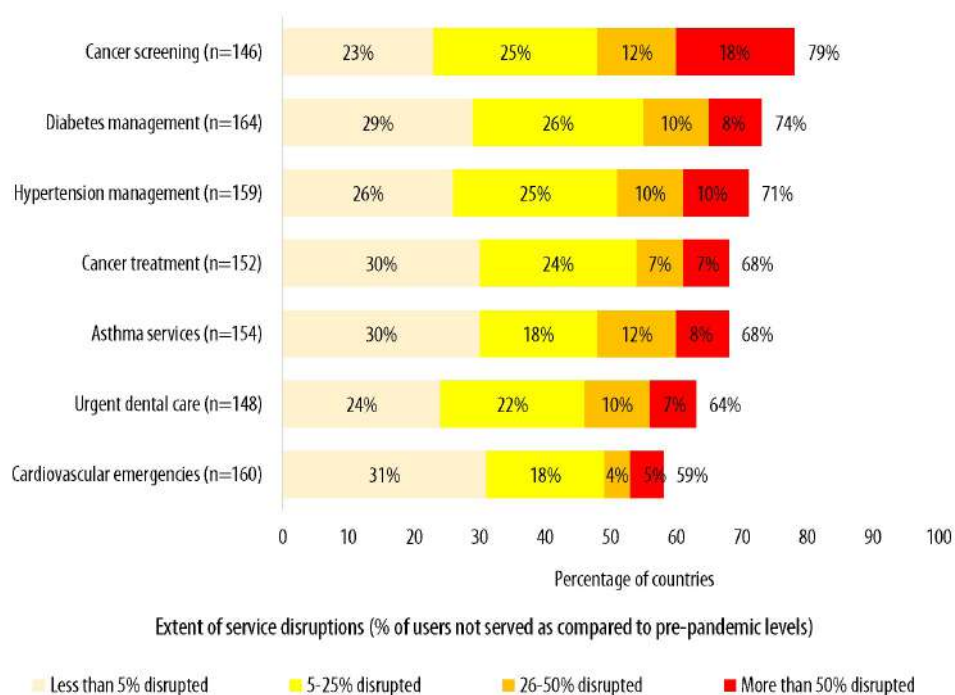


Note: The disruptions in services for care for older people are asked for the first time in the third round of the survey (Q4 2021). As such, trend comparisons with previous survey rounds are not available.

Disruptions in services for noncommunicable diseases

Disruptions in services for noncommunicable diseases were measured through the assessment for the 2021 Country profile of capacity and response. This methodology differed from that used in the round 3 pulse survey on continuity of essential health services because it includes an extra category indicating minimal disruption (up to 5%). Consequently, the percentage of countries reporting any disruption is not comparable with the percentages reported for other services.

FIG. A23. Percentage of countries reporting disruptions in services for noncommunicable diseases in Q4 2021



Source: 2021 Country Profile of Capacity and Response to Noncommunicable Diseases (NCDs) assessment (unpublished)

Annex 2: Round 3 Global pulse survey on continuity of essential health services during the COVID-19 pandemic questionnaire

A link to the complete Round 3 *Global pulse survey on continuity of essential health services during the COVID-19 pandemic* survey questionnaire is available on WHO's website ([🌐](#)).

For ease of reference, a summary of survey sections and suggested key informants is included below.

TABLE A1. Outline of round 3 pulse survey sections and suggested key informants

| Outline of survey modules | | Suggested key informant(s) |
|--|--|---|
| Continuity of essential health services module | | |
| 1 | <ul style="list-style-type: none"> • Policies, planning and investment • Service disruptions across service delivery platforms • Mitigation strategies and recovery measures • Information tracking • Health system bottlenecks and priority needs to support delivery of: <ul style="list-style-type: none"> – essential health services – essential COVID-19 tools | Health system, service delivery, or essential health services incident management support team focal point(s) |
| In-depth modules on disruptions to tracer service areas | | |
| 2 | Sexual, reproductive, maternal, newborn, child and adolescent health | Sexual, reproductive, maternal, newborn, child and adolescent health focal point(s) |
| 3 | Nutrition | Nutrition focal point(s) |
| 4 | Immunization | Immunization focal point(s) |
| 5 | Human immunodeficiency virus and hepatitis | Human immunodeficiency virus and hepatitis focal point(s) |
| 6 | Tuberculosis | Tuberculosis focal point(s) |
| 7 | Malaria | Malaria focal point(s) |
| 8 | Neglected tropical diseases | Neglected tropical diseases focal point(s) |
| 9 | Mental, neurological and substance use disorders | Mental health, neurology and substance abuse focal point(s) |
| 10 | Care for older people | Care for older people focal point(s) |

Annex 3:

List of 66 tracer services assessed in the third round of the *Global pulse survey on continuity of essential health services during the COVID-19 pandemic*

Services marked with * are among the services that were included in all three pulse survey rounds and on which comparisons of trends in overall service disruptions between 2020 and 2021 could be analysed.

Service delivery settings and platforms

Primary care

- Routine scheduled primary care clinic services
- Unscheduled primary care clinic services
- Prescription renewals for chronic medications

Emergency, critical, and operative care

- Prehospital emergency care services (e.g. ambulance transport)
- 24-hour emergency unit services*
- Emergency surgeries*
- Elective surgeries and procedures*

Rehabilitative and palliative care

- Rehabilitative services*
- Palliative services*

Community care

- Outreach services
- Health post and home visits by community health workers

Other

Appointments with specialists
Hospital inpatient services

Condition- and programme specific tracer health service areas

Sexual, reproductive, maternal, newborn, child and adolescent health

- Family planning and contraception*
- Safe abortion
- Post-abortion care services
- Fertility care/infertility services
- Identification and care for intimate partner violence
- Response to sexual violence (post-rape care)
- Antenatal care*

- Facility-based births*
- Postnatal care for women and newborns
- Neonatal intensive care unit (NICU) services
- Sick child services*
- Well-child visits, including growth and developmental monitoring and counselling
- Adolescent and youth friendly services

Nutrition

- Counselling on infant and young-child feeding (IYCF)
- Screening for and/or management of moderate and severe wasting*
- Distribution of high dose vitamin A supplementation

Immunization

- Routine facility-based immunization services*
- Routine outreach immunization services*

Human immunodeficiency virus and hepatitis

- Human immunodeficiency virus (HIV) prevention services (e.g. pre-exposure prophylaxis, provision of condoms and lubricants, voluntary medical male circumcision, harm reduction services)
- Human immunodeficiency virus (HIV) testing services
- Continuation of established antiretroviral (ARV) treatment*
- Initiation of new antiretroviral (ARV) treatment
- Hepatitis B and C diagnosis and treatment

Tuberculosis

- Tuberculosis (TB) diagnosis and treatment*

Malaria

- Malaria diagnosis and treatment*
- Insecticide-treated-mosquito nets (ITN) *
- Indoor residual spraying (IRS) *
- Seasonal malaria chemoprevention (SMC) *
- Malaria surveillance

Neglected tropical diseases (NTDs)

- Diagnosis, treatment and care for NTDs (facility-based)
- Large scale preventive chemotherapy campaigns for NTDs (e.g. mass drug administrations, and/or school-based treatments)
- Community awareness and health education campaigns for NTDs (e.g. WASH promotion, disease prevention, vector control, eradication)
- Support for self-care, rehabilitation and psychosocial services for patients with chronic NTDs
- Prescriptions for NTD medicines
- Surgical procedures for NTDs

Mental, neurological, and substance use (MNS) disorders

- Management of emergency MNS manifestations (including suicide attempt, status epilepticus, delirium, drug overdose, severe substance withdrawal syndromes) *
- Psychotherapy/counseling/psychosocial interventions for MNS disorders*
- Availability of psychotropic medicines for management of MNS disorders*

- Services for children and adolescents with mental health conditions or disabilities, including developmental disabilities*
- Services for older adults with mental health conditions or disabilities, including dementia*
- Neuroimaging and neurophysiology
- School mental health programme*
- Inclusive schooling for children with special needs
- Suicide prevention programme*
- Substance use prevention and management programmes*
- Alcohol prevention and management programmes
- Critical harm reduction services (e.g. needle exchange programmes, outreach services)*

Care for older people

- Health and social care services in long-term care facilities (e.g. nursing homes)
- Health and social care services in the community (e.g. day care centres and home visits)
- Screening and assessment of physical and mental capacities for older people (e.g. mobility, cognition, mood, nutrition, vision and hearing)
- Provision of integrated health and social care services for older people (e.g. management of functional decline, noncommunicable diseases management, vaccination)

Cancer care

- Cancer screening
- Cancer treatment*

Annex 4:

List of countries, territories and areas that participated in the third round of the pulse survey on continuity of essential health services during the COVID-19 pandemic

WHO would like to express its gratitude to all authorities and WHO Country Offices that supported participation in the third round of this survey.

AFRICAN REGION

| | | |
|----------------------------------|---------------|-----------------------------|
| Algeria | Gabon | Niger |
| Angola | Gambia | Rwanda |
| Benin | Ghana | Sao Tome and Principe |
| Botswana | Guinea | Senegal |
| Burundi | Guinea-Bissau | Seychelles |
| Cabo Verde | Kenya | Sierra Leone |
| Cameroon | Lesotho | South Africa |
| Central African Republic | Liberia | South Sudan |
| Chad | Madagascar | Togo |
| Comoros | Malawi | Uganda |
| Côte d'Ivoire | Mali | United Republic of Tanzania |
| Democratic Republic of the Congo | Mauritania | Zambia |
| Equatorial Guinea | Mauritius | Zimbabwe |
| Eswatini | Mozambique | |
| Ethiopia | Namibia | |

REGION OF THE AMERICAS

| | | |
|----------------------------------|----------------------------|------------------------------------|
| Antigua and Barbuda | Costa Rica | Panama |
| Argentina | Cuba | Peru |
| Bahamas | Dominica (Commonwealth of) | Saint Vincent and the Grenadines |
| Barbados | Ecuador | Suriname |
| Belize | El Salvador | Turks and Caicos Islands |
| Bermuda | Guatemala | United States of America |
| Bolivia (Plurinational State of) | Haiti | Uruguay |
| Brazil | Honduras | Venezuela (Bolivarian Republic of) |
| British Virgin Islands | Jamaica | |
| Chile | Nicaragua | |

EASTERN MEDITERRANEAN REGION

| | |
|----------------------------|--|
| Bahrain | occupied Palestinian territory, including east Jerusalem |
| Egypt | Oman |
| Iran (Islamic Republic of) | Pakistan |
| Iraq | Qatar |
| Jordan | Somalia |
| Kuwait | Sudan |
| Lebanon | Tunisia |
| Libya | Yemen |
| Morocco | |

EUROPEAN REGION

| | | |
|----------------|------------|-----------------|
| Armenia | Hungary | Netherlands |
| Belarus | Israel | North Macedonia |
| Croatia | Kazakhstan | Portugal |
| Cyprus | Latvia | Slovenia |
| Czech Republic | Lithuania | Sweden |
| Finland | Luxembourg | Turkey |
| France | Malta | Ukraine |
| Germany | Montenegro | Uzbekistan |

SOUTH-EAST ASIAN REGION

| | | |
|------------|----------|-------------|
| Bangladesh | Maldives | Sri Lanka |
| Bhutan | Myanmar | Thailand |
| Indonesia | Nepal | Timor-Leste |

WESTERN PACIFIC REGION

| | | |
|-------------------|----------------------------------|----------|
| Australia | Lao People's Democratic Republic | Vanuatu |
| Brunei Darussalam | Malaysia | Viet Nam |
| Cambodia | New Zealand | |

TABLE A2. Overall and section-specific response rates

| Region | Overall | | | | | | By survey section | | | | | | | | | |
|------------------------------|--|------------------------------------|--|--|---|------------------------------|---------------------|----------------------|-------------------------|------------------------------|---------------|-------------------------------------|----------------------------------|----------------|-----------------------------------|--|
| | Round 1 | | Round 2 | | Round 3 | | Round 3 | | | | | | | | | |
| | Countries with partial survey submission | Countries that received survey (#) | Countries with partial survey submission | Countries with partial survey submission | Countries with complete survey submission | Section 1. Continuity of EHS | Section 2. SRMNC/AH | Section 3. Nutrition | Section 4. Immunization | Section 5. HIV and hepatitis | Section 6. TB | Section 7. Malaria (where relevant) | Section 8. NTDs (where relevant) | Section 9. MNS | Section 10. Care for older people | |
| African Region | 45/47 (96%) | 48 | 40/47 (85%) | 43/48 (90%) | 31/48 (65%) | 38/48 (79%) | 36/48 (75%) | 37/48 (77%) | 38/48 (79%) | 37/48 (77%) | 39/48 (81%) | 36/44 (82%) | 39/48 (81%) | 36/48 (75%) | 36/48 (75%) | |
| Region of the Americas | 34/54 (63%) | 54 | 29/54 (54%) | 28/54 (52%) | 11/54 (20%) | 20/54 (37%) | 21/54 (39%) | 21/54 (39%) | 19/54 (35%) | 19/54 (35%) | 17/54 (31%) | 9/18 (50%) | 13/31 (42%) | 19/54 (35%) | 13/54 (24%) | |
| Eastern Mediterranean Region | 22/22 (100%) | 22 | 21/22 (95%) | 17/22 (77%) | 6/22 (27%) | 9/22 (41%) | 7/22 (32%) | 7/22 (32%) | 8/22 (36%) | 8/22 (36%) | 7/22 (32%) | 2/7 (29%) | 6/20 (30%) | 16/22 (73%) | 8/22 (36%) | |
| European Region | 48/53 (90%) | 53 | 23/53 (43%) | 24/53 (45%) | 10/53 (19%) | 17/53 (32%) | 17/53 (32%) | 15/53 (28%) | 19/53 (36%) | 17/53 (32%) | 18/53 (34%) | N/A | 14/49 (29%) | 17/53 (32%) | 17/53 (32%) | |
| South-East Asian Region | 11/11 (100%) | 11 | 9/11 (82%) | 9/11 (82%) | 7/11 (64%) | 7/11 (64%) | 8/11 (73%) | 8/11 (73%) | 8/11 (73%) | 8/11 (73%) | 8/11 (73%) | 5/8 (63%) | 8/11 (73%) | 8/11 (73%) | 8/11 (73%) | |
| Western Pacific Region | 27/29 (93%) | 35 | 13/29 (45%) | 8/35 (23%) | 4/35 (11%) | 4/35 (11%) | 5/35 (14%) | 5/35 (14%) | 4/35 (11%) | 5/35 (14%) | 6/35 (17%) | 3/9 (33%) | 7/26 (27%) | 7/35 (20%) | 8/35 (23%) | |
| Global | 187/216 (86%) | 223 | 135/216 (63%) | 129/223 (58%) | 69/223 (31%) | 95/223 (43%) | 94/223 (42%) | 93/223 (42%) | 96/223 (43%) | 94/223 (42%) | 95/223 (43%) | 55/86 (64%) | 87/185 (47%) | 103/223 (46%) | 90/223 (40%) | |

Note:

Complete survey submission: submission of all relevant survey sections.

Partial survey submission: submission of at least one survey section.

Round 1 response rates consolidate responses submitted to 3 separate service disruption pulse surveys during Q3–Q4 2020: i. Continuity of essential health services (cross-cutting); ii. Noncommunicable diseases; and iii. Mental, neurological and substance use disorders.

The round 3 survey was sent to 223 countries, territories and areas. Response rates are calculated based on relevance of services to the country context. Malaria is considered relevant in 86 country contexts and neglected tropical diseases are considered relevant in 185 country contexts.

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