

Children and the coronavirus disease 2019 pandemic: a Caribbean perspective

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ABSTRACT

This study aims to assess coronavirus disease 2019 (COVID-19) surveillance methods, health resources, vaccination coverage and income stratification and quantify burdens of disease and death in children and adolescents in the Caribbean. The investigation was a descriptive, cross-sectional study that included 15 Caribbean countries/territories and utilized surveys and secondary data sources. Quarantine and isolation measures were robust and surveillance strategies were similar. Pediatric specialists were available across the region, but few had designated pediatric hospitals or high-dependency units. There were more cases in children on islands with larger populations. Compared to high-income countries/territories, upper and lower middle-income countries/territories had higher disease burdens, fewer doctors and nurses per 1 000 population, lower bed capacities, and lower vaccination coverage. Child and adolescent cases ranged from 0.60% to 16.9%, compared with a global case rate of 20.2% in 2021. By August 2021 there were 33 deaths among children from Haiti, Jamaica, Trinidad and Tobago, and Barbados. The respective case fatality rates for 0–9-year-olds and 10–19-year-olds were 2.80 and 0.70 in Haiti, 0.10 and 0.20 in Jamaica, and 0.00 and 0.14 in Trinidad, compared with 0.17 and 0.1 globally. Overall COVID-19 incidence and mortality in children were consistent with global estimates. Limited resources have been offset by availability of pediatricians across the region, and minimally direct effects on children. Prioritization of admission of specific at-risk groups, training of first responders and vaccination campaigns targeting pregnant women and vulnerable children and adolescents could benefit countries with low vaccine coverage rates and limited resources.

Keywords

SARS-CoV-2; COVID-19; child; pediatrics; developing countries; Caribbean Region.

The coronavirus disease 2019 (COVID-19) pandemic has had severe direct effects on a small percentage of children and adolescents, with proportionally fewer symptomatic cases and deaths than in adults (1). Disease severity has been highest in children with comorbidities such as obesity, diabetes, heart disease, chronic lung diseases other than asthma, seizure disorders, and an immunocompromised status (2). Neonates and

premature infants are evidently at higher risk of developing severe COVID-19 (2). Preliminary studies suggest that the delta and omicron variants have resulted in increased hospitalizations, but the proportion of severe disease has remained the same (3). Though there is no evidence of increasing mortality, additional deaths have been reported in children and young people during periods of high community transmission (4).

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During the early phase of the pandemic global data pertaining to children were limited. Most available information was from China and high-income countries (HICs). Children were identified with surveillance protocols (5) that were supplemented with school surveillance protocols upon the reopening of schools (6). Multisystem inflammatory syndrome in children (MIS-C) was recognized as a feature of COVID-19, which was disproportionately affecting Hispanic and Black populations in high-income countries (HICs) (7). Children living in low socioeconomic status families within HICs may be at greater risk of severe disease (8).

As epidemiologic patterns emerged internationally, scientists were unsure whether the ethnic and socioeconomic diversity of the Caribbean would render children more vulnerable to severe forms of COVID-19. Efforts to understand the risk posed to Caribbean children by COVID-19 were critical, given limited resources for both research and treatment. While data are available for adult patients with COVID-19, disaggregated data pertaining to pediatric patients infected with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in the Caribbean are limited. The aims of the current study were to assess the surveillance methods used to identify cases of COVID-19, document available health resources, vaccination coverage and income stratification among islands, and quantify the morbidity and mortality burden in children and adolescents in the Caribbean to inform policy guidelines.

METHODS

This descriptive, cross-sectional study contacted pediatricians working in 15 Caribbean countries/territories in two phases during the COVID-19 pandemic. From March to July 2020 an online survey was conducted among a convenience sample of pediatricians generated from an email database

hosted by the Caribbean College of Paediatricians. Pediatricians in Haiti, Cuba, and Guadeloupe who were not in the database were identified via pediatric networks. At least one pediatrician per island received the email survey. The survey asked questions on 5 broad themes: surveillance methods, surveillance sites, processes for isolation of the sick and for quarantine of the infected and available pediatric specialists. Questions were adapted from the World Health Organization interim guidelines for surveillance strategies for COVID-19 human infection (5). Surveillance methods included immediate case notification, contact tracing systems, sentinel surveillance, and cluster investigation. Surveillance sites included individuals in the community, primary care sites (non-sentinel influenza-like illness/severe acute respiratory infection, ILI/SARI), hospitals (non-sentinel ILI/SARI), sentinel ILI/SARI sites, residential facilities, and vulnerable groups. In addition, there were open-ended questions on quarantine methods, isolation of children, and available pediatric specialists. Survey data was supplemented with country-level information on gross national income per capita; the World Bank country classification based on per capita income (high, upper-middle, lower-middle); health system indicators, including hospital beds, physicians, and nurses per 1000 members of the population; child and adolescent population by country and vaccination coverage. These country-level data were drawn from the World Bank (income levels, health system indicators), United Nations World Population Prospects (population by age), and the Pan-American Health Organization (vaccination coverage) (see footnote to Table 1 for detailed data sources).

The pediatricians targeted worked in public health, ministries of health, academia, or hospitals. Survey responses were supplemented by information in press releases from ministries of health, and included activities conducted in hospitals in which the responding pediatricians operated. To minimize

TABLE 1. Income levels, health resources, child and adolescent populations, and vaccination coverage by Caribbean country/territory

Countries	Population aged 0–19 years (1000s) in 2020 ^a	Income level GNI per capita, PPP (Int\$), 2021–2022 ^b	Hospital beds per 1000 people ^b	Physicians per 1000 people ^b	Nurses and midwives per 1000 people ^b	Completed COVID-19 vaccination per 100 people ^c
Caribbean	13 876		2.4	1.7	2.5	
Antigua and Barbuda	28	HIC	2.9	2.8	4.5	62.7
Bahamas	117	HIC	3.0	1.9	4.8	39.8
Barbados	67	HIC	6.0	2.5	3.1	53.2
Cuba	2 446	HIC	5.3	8.4	7.6	88.0
Dominican Republic	3 935	UMIC	1.6	1.5	1.5	54.5
Grenada	34	UMIC	3.6	1.4	-	33.9
Haiti	4 847	LMIC	0.7	0.2	0.4	1.1
Jamaica	931	UMIC	1.7	0.5	1.5	23.4
St Kitts and Nevis	-	HIC	-	-	-	49.3
St Lucia	46	UMIC	1.3	0.6	3.2	29.2
Trinidad and Tobago	370	HIC	3.0	4.5	4.3	50.7

GNI, Gross National Income; HIC, high-income country; LIC, low-income country; PPP, purchasing power parity; UMIC, upper-middle-income-country

Sources:

^aUnited Nations Department of Economic and Social Affairs Population Dynamics. World Population Prospects 2019 (<https://population.un.org/wpp/Download/Standard/Population>; accessed 27 February 2022)

^bWorld Bank data (<https://data.worldbank.org/indicator/NY.GNP.PCAP.PP.CD>; <https://data.worldbank.org/indicator/SH.MED.BEDS.ZS>; <https://data.worldbank.org/indicator/SH.MED.PHYS.ZS>; <https://data.worldbank.org/indicator/SH.MED.NUMWV.P3>; accessed 23 May 2022)

^cPAHO COVID-19 Vaccination in the Americas Dashboard (https://ais.paho.org/imm/IM_DosisAdmin-Vacunacion; accessed 23 May 2022)

^dMost recent available data

nonresponse, the survey was kept short, and emailed reminders were sent. To minimize bias in countries where pediatricians were not accessed, country websites or online press releases were searched to retrieve any information pertaining to Caribbean children.

To quantitatively assess the burden of COVID-19 infection across the region, available data from online dashboards or press releases were scanned until August 2021. These online reports were supplemented with a written request for information sent directly or through pediatricians to health ministries across the Caribbean. Collected data included the number of confirmed cases of SARS-CoV-2 and deaths of patients aged 0–9 and 10–19 years. The proportions of childhood and adolescent cases and case fatality rates (CFRs) were then calculated and compared with international estimates of age-stratified mortality and case fatality in high-income countries (HICs), upper-middle income countries (UMICs) and lower middle-income-countries (LMICs). This study drew only on secondary information, mostly in the public domain, and therefore ethical approvals were not required. Ministries of Health in each Caribbean country/territory approved the public sharing of all collected country-level data.

RESULTS

Responses to the survey were received from at least one pediatrician from 15 Caribbean countries/territories: Anguilla, Antigua, the British Virgin Islands, the Bahamas, Barbados, the Cayman Islands, Cuba, Grenada, Guadeloupe, Haiti, Jamaica, Saint Lucia, Saint Kitts and Nevis, Trinidad and Tobago, and Turks and Caicos Islands. Published reports concerning the Dominican Republic were included in the analysis apart from the survey. Ten of the 15 countries/territories submitted surveillance data that were verified by Ministries of Health. The most common surveillance methods early in the pandemic (90%) were case notification, contact tracing, and cluster investigation, with 50% using sentinel surveillance for ILI-SARI. The most common surveillance sites (80%) were primary care sites (non-sentinel ILI-SARI), hospitals (non-sentinel ILI-SARI), and sentinel ILI-SARI sites. Fifty percent targeted individuals in the community and 30 % monitored residential facilities (targeting the elderly), and other vulnerable groups.

All Caribbean countries/territories required quarantine at home or designated government facilities, and isolation in designated hospital wards. In Barbados, which had a population aged 0–19 years of approximately 67 000 (Table 1), home isolation was not being used at the time of the study but was subsequently included in protocols. SARS-CoV-2-infected children and adults were quarantined at government-approved facilities. In Jamaica, which had a population aged 0–19 years of approximately 931 000 (Table 1), symptomatic children requiring hospital admission were managed in a designated ward and transferred to the main children's hospital or another intensive care unit if required. In the Bahamas, which had a population aged 0–19 years of approximately 117 000 (Table 1), the main referral and treatment center for children was in the capital city Nassau. Symptomatic children requiring admission were isolated in specially designed rooms at the hospital or in COVID-19 units constructed within the hospital compound. Most islands did not have a designated pediatric hospital with a high-dependency unit (HDU), but pediatricians were well represented.

Available data derived from eleven Caribbean countries/territories pertaining to child and adolescent populations, health resources, and most recent vaccination coverage are shown in Table 1. There were six HICs, four UMICs, and only one LMIC. Four territories (Anguilla, British Virgin Islands, Cayman Islands and Turks and Caicos Islands) are British overseas territories and Guadeloupe is a French overseas territory and are not classified by the World Bank. There were five islands with approximately 100 000 children or less in the 0–19 years age group, and four countries with approximately one million children or more, with Cuba, Dominican Republic and Haiti, having the highest numbers. HICs had bed capacities exceeding 3 per 1000 members of the population, physician numbers ranging from 1.9–8.4 per 1000, and nurse and midwife numbers mainly > 4 per 1000. UMICs had lower bed capacities and numbers of physicians per 1000 than HICs, but numbers of nurses and midwives per 1000 were variable. Haiti had the least health resources. Vaccination coverage as of 20 May 2022 ranged from 39.8%–88.1% in HICs and 23.4%–54.5% in UMICs, and it was 1.1% in Haiti.

Data reporting COVID-19 cases and deaths stratified by age among patients aged 0–19 years in specific Caribbean countries/territories with accessible data are shown in Table 2. Haiti, Jamaica, and Cuba reported the most children with COVID-19 in 2020, and Trinidad, Jamaica, and Cuba reported the most in 2021. The proportions of all PCR-confirmed COVID-19 cases involving patients aged 0–19 years ranged from 0.6% to 16.9 % in 2021 among 12 islands with accessible data, compared to 20.2% globally. The Dominican Republic and Trinidad and Tobago reported the most cases of MIS-C, with 144 and 29 cases respectively (9), compared with two cases in Barbados and one in St Lucia.

Cumulative deaths from COVID-19 in children and adolescents were highest in Haiti during the first 4 months of the pandemic, with 7 of the 8 deaths reported in patients aged 0–19 years up to July 2020 occurring in Haiti. Mortality data were not available for five countries/territories. No deaths have been reported for the most part in islands with accessible data for the period under review. By August 2021 a total of 33 deaths had been reported in patients aged 0–19 years, with all cases coming from Haiti, Jamaica, Trinidad and Tobago, and Barbados (Table 2). CFRs varied from 0.0 to 2.8 in 0–9-year-olds, and from 0.0 to 0.7 in 10–19-year-olds. Haiti had a higher CFR in 0–9-year-olds (2.8) than in 10–19-year-olds (0.7).

DISCUSSION

Based on available data, measures to quarantine and isolate children were robust and surveillance strategies were similar in the Caribbean countries/territories surveyed. Small island populations such as Barbados were able to confine quarantine and isolation to designated facilities, but isolation was mainly conducted in hospitals. UMICs and LMICs in the Caribbean countries/territories surveyed fell below the sustainable development goal index threshold of 4.45 doctors, nurses, and midwives per 1000 members of the population specified by the World Health Organization as the minimum density representing the need for health workers (10). Specialist pediatric hospitals and HDUs are limited in the region. Population vaccination coverage was generally less than 50% in UMICs and LMICs, compared with HICs.

TABLE 2. Cumulative COVID-19 cases, deaths, and case fatality rates by age group among children and adolescents

	Cases, N (%)			Cumulative deaths		Case fatality rate		
	0–9	10–19	0–19	0–9	10–19	0–9	10–19	0–19
Anguilla ^a								
July 2020	0	0	0	0	0	0	0	0
July 2021	4 (3.5)	12 (10.4)	16 (14.1)	0	0	0	0	0
Bahamas ^b								
August 2021	237 (1.3)	1048 (5.8)	1285 (7.1)	0	0	0	0	0
Barbados ^c								
June 2020	1 (1)	1 (1)	2 (2.1)	0	0	0	0	0
August 2021			849 (16.9)	0	1	0	-	0.12
British Virgin Islands ^d								
May 2020	0	0	0	0	0	0	0	0
May 2021	9 (3.6)	15 (6)	24 (9.7)	0	0	0	0	0
Cayman Islands ^{e,f}								
April 2021	9 (1.7)	37 (6.9)	46 (8.6)	0	0	0	0	0
Cuba ^{g,h}								
May 2020	-	-	223 (10.5)	0	0	0	0	0
July 2021	-	-	413140 (11.9)	-	-	-	-	-
Grenada ⁱ								
July 2020	0 (0)	0 (0)	0 (0)	0	0	0	0	0
July 2021	1 (0.6)	0 (0)	1 (0.60)	0	0	0	0	0
Haiti ^k								
June 2020	107 (2.4)	130 (2.9)	237 (5.3)	3	1	2.8	0.8	1.7
July 2021	460 (2.3)	852 (4.2)	1312 (6.5)	13	6	2.8	0.7	1.4
Jamaica ^{l,m}								
May 2020	42 (7.2)	64 (10.9)	106 (18.1)	1	0	2.3	0	0.9
August 2021	3125 (5.2)	4576 (7.7)	7701 (12.9)	3	7	0.1	0.2	0.13
St. Kitts and Nevis ^e								
June 2020	0 (0)	0 (0)	0 (0)	0	0	0	0	0
August 2021	3 (0.9)	1 (0.3)	4 (1.2)	0	0	0	0	0
Trinidad and Tobago ⁿ								
May 2020	3 (2.6)	0 (0)	3 (2.6)	0	0	0	0	0
August 2021	1305 (3.3)	2192 (5.5)	3497 (8.8)	0	3	0	0.14	0.09
Turks and Caicos ^e								
June 2021	0 (0)	0 (0)	0 (0)	0	0	0	0	0
August 2021	109 (4.1)	143 (5.4)	252 (9.5)	0	0	0	0	0
World (67 countries**) ^o								
Dec 2021	6,489,510 (7.2)	11,693,811 (13.0)	18,183,21 (20.2)	3073	4035	0.017 ^p	0.1 ^p	0.06 ^p

This table was prepared by the authors. Data sources: ^aMinistry of Health, Anguilla; ^bMinistry of Health, Government of the Bahamas; ^cMinistry of Health and Wellness Barbados – Department of Environmental surveillance; ^dMinistry of Health and Social Development, Government of the Virgin Islands; ^e<https://ais.paho.org/phi/viz/COVID-19EpiDashboard.asp>, based on available data August 29, 2021; ^f<https://www.worldometers.info/coronavirus/#countries>; ^ghttps://www.unicef.org/cuba/media/2231/file/COVID_19_1%20Cuban%20children&adof.pdf.pdf; ^h<https://www.cecmec.edu/noticias/aprueba-cecmec-ensayo-clinico-fase-i-ii-candidato-vacunal-soberana-poblacion-pediatrica>; ⁱGovernment of Grenada Ministry of Health; ^j<https://www.humanitarianresponse.info/en/operations/haiti/documents?page=42>; ^kRepublic of Haiti, Ministry of Public Health and Population (MPSS); ^l<https://jamcovid19.moh.gov.jm/>; ^mMinistry of Health and Wellness, Jamaica; ⁿGovernment of the Republic of Trinidad and Tobago, Ministry of Health; ^o<https://data.unicef.org/covid-19-and-children/>; ^psystematic review of articles and national reports as of December 7, 2020 for 138 LMIC,UMIC and HIC (reference 11, S4 Table. Age-specific fatality and ICU admission/1,000,000 children, case fatality rate and ICU admission rate. <https://doi.org/10.1371/journal.pone.0246326.s009>)

^oages 0–18 for Barbados **Cases among 67 countries and deaths among 51 countries in HIC, UMIC and LMIC

The absolute burden of disease among children is significant in countries with larger populations of children and adolescents such as Cuba, Jamaica, Haiti, and Trinidad and Tobago. The Dominican Republic had the highest number of MIS-C cases in the region (9) and a large population of children and adolescents (Table 1). The number of cases identified in Haiti was disproportionately low compared with the child and adolescent population (Table 1), but this may be related to the testing strategy used in that country. In the first few months of the pandemic symptomatic patients were tested, but this testing strategy changed with increasing numbers of cases in May 2020. Thereafter, patients with coexisting conditions or atypical

presentations, pregnant women, and healthcare workers were prioritized for screening. A clinical case definition based on symptoms and radiology was used to identify patients in need of care (11). Additionally, Haiti experienced an earthquake in 2021 as well as social unrest which may have interfered with surveillance strategies.

In 2021 the proportion of children among all COVID-19 cases and the increment of cases over one year were lower, whereas the CFR was higher in Haiti than in Jamaica, and globally. A meta-analysis revealed that CFRs were significantly higher in LMICs and UMICs than in HICs (0.24 vs. 0.013) (12) which is consistent with a higher CFR in Haiti compared with

other countries (Table 2). Deaths from COVID-19 in children are rare and have been highest in infants < 1 year old with CFR of 0.58. (12). CFR is an estimated value that depends on the testing strategy, which may not identify all cases. In this study, HIC and UMICs such as the Bahamas, Barbados, Trinidad and Tobago and Jamaica exhibited higher CFRs among ages 10-19 compared with ages 0-9. The pooled data used for comparison in Table 2 showed a higher CFR among the younger age group but there were limitations outlined in that analysis (12). The higher CFR among 0–9-year-olds in Haiti may be related to a low number of confirmed cases, although low socioeconomic status and a poor healthcare system may have had an effect.

This study had some limitations. The analysis was limited to countries that supplied disaggregated data for COVID-19 infection among children. Case identification determines the case rate and is dependent on the test-and-trace capacity in each country which was not analyzed. Furthermore, children were mainly asymptomatic or had mild disease and may not have been prioritized for testing. Data from national ministries of health may have inherent weaknesses of timing, completeness, and accuracy. We were unable to describe specific clinical outcomes or disease severity among children, or the effects of vaccination coverage, which was low in countries with relatively higher burdens of disease such as Haiti and Jamaica (Table 1). The effects of bed capacity and hospital isolation requirements on non-COVID-19 admissions were not evaluated. The high burden of MIS-C cases in the Dominican Republic, the higher CFR in the 0–9-years age group compared to the 10–19-years age group in Haiti, and the multidimensional effects of COVID-19 across socioeconomic strata warrant further investigation. Despite these limitations, this is the first regional published work investigating the burden of the COVID-19 pandemic in children and adolescents in the context of health resources. As the pandemic evolves, the important findings of the current study can serve as a reference point for policymakers.

Overall, surveillance strategies were similar but wide variability in case rates suggests differences in testing capacities. Nevertheless, COVID-19 incidence and mortality in children were consistent with global estimates. A lack of designated pediatric hospitals and HDUs and health resources has been partly offset by the availability of pediatricians across the region, and minimal direct effects on children.

Potential increased hospitalization with emerging variants in the face of limited doctors, nurses, bed capacity, specialized hospitals for children, and hospital isolation facilities across the Caribbean subregion would burden the health sector and result in unfavorable outcomes in patients with severe COVID-19 needing HDU support, and non-COVID-19 cases requiring hospitalization. Furthermore, the uncontrolled spread of SARS-CoV-2 in unvaccinated populations may prolong or exacerbate any indirect effects of the pandemic on children. Collaborative research of the COVID-19 pandemic's multidimensional effects must be ongoing to generate tailored policy decisions concerning children and adolescents. Prioritization of hospital admissions for children with specific comorbidities associated with COVID-19 diseases severity should further minimize poor outcomes. Ongoing training of first responders to identify and manage early signs of life-threatening complications such as shock in severe MIS-C can limit morbidity and mortality. Additionally, standardized guidelines along with acquisition of equipment such as a vital signs monitors, infusion pumps and high flow nasal oxygen could be considered for early management of severe complications in settings with limited or no HDUs. In countries challenged with achieving high vaccination coverage rates, strategic vaccination campaigns should be geared towards pregnant women, vulnerable children and adolescents, and other at-risk groups.

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La población infantil y la pandemia de COVID-19: una perspectiva del Caribe

RESUMEN

El presente estudio tiene como objetivo evaluar los métodos de vigilancia, los recursos de salud, y la cobertura de vacunación y la estratificación de los ingresos, así como cuantificar las cargas de enfermedad y muerte de la enfermedad por coronavirus del 2019 (COVID-19) en niños, niñas y adolescentes en el Caribe. La investigación consistió en un estudio descriptivo y transversal que incluyó a 15 países o territorios del Caribe y empleó encuestas y fuentes de datos secundarios. Las medidas de cuarentena y aislamiento fueron sólidas, igual que las estrategias de vigilancia. Había especialistas pediátricos disponibles en toda la región, pero pocos designados en hospitales pediátricos o unidades de alta dependencia. Hubo más casos en pacientes pediátricos en las islas más pobladas. En comparación con los países y territorios de ingresos altos, los de ingresos medianos altos y medianos bajos presentaron una mayor carga de morbilidad, menos personal médico y de enfermería por 1 000 habitantes, menor capacidad de camas y menor cobertura de vacunación. Los casos de niños, niñas y adolescentes oscilaron entre 0,60% y 16,9%, en comparación con una tasa general de casos de 20,2% en el 2021. En agosto del 2021, hubo 33 muertes de pacientes pediátricos de Haití, Jamaica, Trinidad y Tabago y Barbados. Las tasas de mortalidad de los grupos etarios de 0 a 9 años y de 10 a 19 años fueron respectivamente de 2,80 y 0,70 en Haití; 0,10 y 0,20 en Jamaica; y 0,00 y 0,14 en Trinidad; en comparación con 0,17 y 0,1 a nivel mundial. La incidencia general de COVID-19 y la mortalidad en la población infantil fueron coherentes con las estimaciones mundiales. Se compensaron los recursos limitados con la disponibilidad de pediatras en toda la región y efectos directos mínimos en los niños. Priorizar la admisión de grupos específicos de riesgo, la capacitación de los equipos de respuesta inicial y las campañas de vacunación dirigidas a mujeres embarazadas y niños, niñas y adolescentes vulnerables podría beneficiar a los países con recursos limitados y bajas tasas de cobertura de vacunación.

Palabras clave

SARS-CoV-2; COVID-19; niño; pediatría; países en desarrollo; Región del Caribe.

As crianças e a pandemia da doença do coronavírus de 2019: uma perspectiva do Caribe

RESUMO

Este estudo visa a avaliar os métodos de vigilância, recursos de saúde, cobertura vacinal e estratificação de renda relacionados à doença do coronavírus de 2019 (COVID-19) e quantificar a carga de morbimortalidade a ela atribuível em crianças e adolescentes no Caribe. Foi realizado um estudo descritivo e transversal que incluiu 15 países e territórios caribenhos e utilizaram-se levantamentos e fontes de dados secundárias. As medidas de quarentena e isolamento foram robustas, e as estratégias de vigilância foram semelhantes. Houve disponibilidade de especialistas pediátricos em toda a região, mas poucos países/territórios tinham hospitais pediátricos ou unidades semi-intensivas especificamente designados. Ocorreram mais casos em crianças nas ilhas com populações maiores. Em comparação com os países/territórios de alta renda, aqueles de renda média-alta e média-baixa apresentaram uma maior carga de morbidade, menos médicos e enfermeiros por 1 000 habitantes, menor capacidade de leitos e menor cobertura vacinal. De 0,60% a 16,9% dos casos ocorreram em crianças e adolescentes, contra uma média mundial de 20,2% em 2021. Até agosto de 2021, haviam ocorrido 33 óbitos de crianças em Barbados, Haiti, Jamaica e Trinidad e Tobago. Os respectivos índices de letalidade nas faixas etárias de 0-9 anos e de 10-19 anos foram 2,80 e 0,70 no Haiti, 0,10 e 0,20 na Jamaica e 0,00 e 0,14 em Trinidad, em comparação com 0,17 e 0,1 no âmbito mundial. Em geral, a incidência e a mortalidade por COVID-19 em crianças foram condizentes com as estimativas mundiais. Os recursos limitados foram compensados pela disponibilidade de pediatras em toda a região e pelos pouquíssimos efeitos diretos sobre as crianças. Priorização de grupos de risco específicos para internação, treinamento de socorristas e campanhas de vacinação dirigidas a gestantes e a crianças e adolescentes vulneráveis poderiam beneficiar países com baixos índices de cobertura vacinal e recursos limitados.

Palavras-chave SARS-CoV-2; COVID-19; criança; pediatria; países em desenvolvimento; Região do Caribe.
