

High level of infection prevention and control in surveyed hospitals in Colombia, 2021

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ABSTRACT

Objective. This study aimed to determine the performance of infection prevention and control (IPC) programs in eight core components in level 2 and level 3 hospitals across all provinces in Colombia.

Methods. This cross-sectional study used self-assessed IPC performance data voluntarily reported by hospitals to the Ministry of Health and Social Protection during 2021. Each of the eight core components of the World Health Organization's checklist in the Infection Prevention and Control Assessment Framework contributes a maximum score of 100, and the overall IPC performance score is the sum of these component scores. IPC performance is graded according to the overall score as inadequate (0–200), basic (201–400), intermediate (401–600) or advanced (601–800).

Results. Of the 441 level 2 and level 3 hospitals, 267 (61%) reported their IPC performance. The median (interquartile range [IQR]) overall IPC score was 672 (IQR: 578–715). Of the 267 hospitals reporting, 187 (70%) achieved an advanced level of IPC. The median overall IPC score was significantly higher in private hospitals (690, IQR: 598–725) than in public hospitals (629, IQR: 538–683) ($P < 0.001$). Among the core components, scores were highest for the category assessing IPC guidelines (median score: 97.5) and lowest for the category assessing workload, staffing and bed occupancy (median score: 70). Median overall IPC scores varied across the provinces ($P < 0.001$).

Conclusions. This countrywide assessment showed that 70% of surveyed hospitals achieved a self-reported advanced level of IPC performance, which reflects progress in building health system resilience. Since only 61% of eligible hospitals participated, an important next step is to ensure the participation of all hospitals in future assessments.

Keywords

Operations research; hospital infection control program; health care associated infection; self-evaluation programs.

Infection, prevention and control (IPC) is a central pillar in reducing health care-associated infections, or HAIs (1). IPC measures ensure that patients receive safe care, which is their right and an obligation for all those who work in the health care sector (2, 3). The World Health Organization's (WHO's) *Global report on infection prevention and control* revealed that good IPC programs could prevent 70% of HAIs (4).

HAIs are avoidable infections that patients, health care workers and visitors acquire while in health care facilities (5). On average, 7% of hospitalized patients in high-income countries and 15% in low- and middle-income countries acquire at least one HAI during their hospital stay (6, 7). Such infections prolong hospital stays and can result in long-term disability, high costs to patients, the spread of antimicrobial resistance,

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and millions of avoidable deaths among patients and health workers (5).

The high prevalence of HAIs in low- and middle-income countries suggests that IPC measures are inadequate and need to be improved. Achieving high standards of IPC is essential to preventing the transmission of HAIs, including pandemic influenza and COVID-19 (8, 9). IPC is also a strategic pillar of WHO's *Global action plan to tackle antimicrobial resistance* (10). However, a recent global assessment of IPC programs during 2020–2021 showed that about 11% of countries did not have a national IPC program, and in the 54% of countries that had implemented an IPC program, its use was restricted to a few selected health facilities (4, 11). This prompted WHO Member States to propose a resolution during the 75th World Health Assembly in May 2022 requesting WHO to develop a draft global strategy on infection prevention and control in consultation with Member States and regional economic integration organizations (12).

Recognizing the importance of IPC, WHO defined minimum IPC standards for all health facilities (1). To monitor and audit IPC performance at health facilities, the Infection Prevention and Control Assessment Framework (IPCAF) checklist was developed (13). The IPCAF assesses WHO's eight core components for IPC and uses close-ended questions to grade IPC performance, categorizing performance as inadequate, basic, intermediate or advanced (13).

Studies using the IPCAF in Liberia, Sierra Leone, Uganda and the United Republic of Tanzania have reported low levels of IPC performance in health facilities (14–18). A study from São Paulo, Brazil, showed large gaps between the recommendations for and use of IPC measures (19). In 2019, WHO implemented a large-scale survey using the IPCAF to assess the global implementation of IPC measures at health facilities in 81 countries from six WHO regions, including 21 countries from the Region of the Americas (20). Lower levels of IPC implementation were found in public health facilities in low- and middle-income countries (20). Country-level information was not reported by the survey.

In Colombia, the IPC program was initiated in 2018, under the Ministry of Health and Social Protection (21). National IPC guidelines were formulated, and health facilities were supported to help them develop hospital committees to implement the IPC program. However, no assessment of IPC implementation has been carried out using the standardized IPCAF checklist. Thus, in 2021 the national program suggested that there should be a self-assessment of baseline IPC performance using the checklist. The data gathered from this assessment will serve as a yardstick to assess progress over time, to establish the best way to measure the progress of the national program and to understand how the COVID-19 pandemic affected IPC activities.

The aim of this study was to use data collected from the IPCAF checklist in 2021 to describe IPC performance in a convenience sample of hospitals from every province in Colombia. The specific objectives were to determine IPC performance levels across the eight core components, by province, to develop recommendations for improvement.

METHODS

Study design

This was a cross-sectional study that used self-reported data from routine monitoring indicators shared with the national IPC program.

Study setting

Colombia has an estimated population of 50 million people. It has 32 provinces and 5 special districts; the Capital District is Bogotá.

There are three levels of hospitals in both the public and private sectors. Level 1 hospitals provide primary health care, including consultations, basic laboratory services and preventive care. Level 2 hospitals offer all of the services in level one, but also provide emergency, surgery, pediatric and obstetric services. Level 3 hospitals provide advanced care, including oncology, plastic surgery, orthopedic surgery, neurosurgery, intensive care and neonatal services. Level 2 and level 3 hospitals have IPC committees. In total, there are 441 level 2 and level 3 public and private hospitals in the country.

The surveyed hospitals were selected by each province according to their management capacity and the availability of the institutions to participate in the assessment.

The national program for surveillance, prevention and control of infection

The national IPC program includes two people from the Ministry of Health and Social Protection. Each institution in a province assigns health professionals to oversee implementation and provide supervision, according to their capacity. The Health Secretariats regulate surveillance and control standards for the diagnosis, prevention and control of communicable diseases. The national program supports the hospital committees in implementing the IPC standards and monitoring their performance.

The checklist for evaluations

In 2021, the national IPC program suggested that IPC committees at level 2 and level 3 hospitals should conduct a self-assessment of IPC performance in their facilities. Upon receiving expressions of interest from hospitals, the national program trained the leaders of the hospital IPC committee to carry out the assessment using the WHO IPCAF checklist. Program officials followed up with the hospitals to share the overall results via email.

The IPCAF checklist is a standardized questionnaire that uses close-ended questions with scored responses. Performance in eight core components (broad areas) is assessed by 81 indicator questions. The eight core components assessed are (i) the IPC program, (ii) the IPC guidelines, (iii) education and training in IPC, (iv) surveillance for HAIs, (v) the use of multimodal strategies for implementing IPC interventions, (vi) how IPC practices are monitored and feedback is provided, (vii) workload, staffing and bed occupancy, and (viii) the built environment, materials and equipment available for IPC at the facility level. Each core component of the IPCAF checklist contributes a maximum score of 100, and the overall performance score is the sum of core component scores, with a maximum score of 800 (13).

Study inclusion and period

All public and private level 2 and level 3 hospitals in Colombia that voluntarily assessed their IPC performance using the IPCAF checklist in 2021 were included.

Data collection, variables and sources

During 2021, hospital IPC committee leaders carried out the assessment of their hospital and shared the completed checklist with the national program. Officials at the national program entered the core component scores from each hospital into a Microsoft Excel database. Data for this study were extracted from the Excel database in March 2022 and included information about the provinces where hospitals are situated, the hospital level, hospital ownership (private or public) and core component scores for each hospital.

Statistical analyses

Sample size was calculated using OpenEpi software (https://www.openepi.com/Menu/OE_Menu.htm) at a 95% confidence interval, with a margin of error of 5%, an initial parameter of 441 nationwide institutions and an expected frequency of 50% (since there are no advance data for these results in the Colombian context). The calculated sample size was a minimum of 206 institutions. A total of 267 institutions were selected from all provinces through nonprobabilistic convenience sampling.

Data from the Excel database were analyzed using Stata version 12.0 (StataCorp, College Station, Texas, USA). The median and interquartile range (IQR) were used to summarize the scores for each core component and the overall scores. The median was preferred to the mean as a summary measure to allow for comparison of the study results with those of the WHO global study (20) once the distribution of the data was evaluated using the Shapiro–Wilk test. A radar chart was used to depict the median scores for the eight core components. The Mann–Whitney U test was used to compare the median overall IPC performance score by level of hospital and type of ownership (i.e. private or public).

Hospital performance in each core component was categorized by score as inadequate (0–25), basic (25.1–50), intermediate (50.1–75) or advanced (75.1–100) (13). Similarly, a hospital's overall IPC performance was also graded based on its scores as inadequate (0–200), basic (201–400), intermediate (401–600) or advanced (601–800). Numbers and percentages were used to describe the distribution of hospitals' IPC performance scores by the level of hospital and hospital characteristics.

A choropleth map of Colombia was constructed using Quantum Geographical Information Software version 2.18.15 (<https://www.qgis.org/en/site/>) to depict the overall performance scores by province. Choropleth maps use the intensity of color to show the variability of scores across provinces. The median overall IPC performance scores were compared across provinces using the Kruskal–Wallis test followed by Dunn's test.

Ethics considerations

Permission to use the IPC data was sought from and approved by the Ministry of Health and Social Protection, Colombia. National ethics approval was obtained from the Ethics Review Committee of the Research and Extension Center of the National University of Colombia (approval: B.CIEFO-1472022). International ethics approval was obtained from the Ethics Advisory Group of the International Union against Tuberculosis and Lung Disease, Paris, France (EAG: 26/21). Because this study

used anonymized program data without identifiers, the need for informed consent was waived.

RESULTS

Out of the 441 total level 2 and level 3 hospitals, 267 (61%) voluntarily reported on their IPC performance and were included in the study. In total, 82 (58%) of 142 public hospitals and 185 (62%) of 299 private hospitals reported on their IPC performance. Out of 32 provinces, 27 (84%) had at least one hospital reporting on its IPC performance. The highest reporting rate was from the Bogotá district, with 50 hospitals participating.

Performance levels measured against core components

Among the 267 hospitals assessed, the median (IQR) overall IPC performance score was 672 (IQR: 578–715). Figure 1 shows the median IPC performance scores for the eight core components. Median scores were highest for the components IPC guidelines (97.5) and the built environment, materials and equipment for IPC at the facility level (92.5), whereas scores were lowest for the components workload, staffing and bed occupancy (70) and for IPC education and training (70).

Of the 267 hospitals, 187 (70%) achieved an advanced level of IPC performance, and 1 (<1%) was classified as inadequate. More than 80% of hospitals achieved the advanced level in the IPC guidelines component (84%, 224) and the built environment, materials and equipment for IPC at the facility level component (89%, 237). Less than 50% of hospitals achieved the advanced level in the workload, staffing and bed occupancy component (40%, 107) and in IPC education and training (42%, 112) (Table 1).

Performance by hospital characteristic

The median (IQR) overall IPC score was significantly higher in private hospitals (score: 690, IQR: 598–725) than in public hospitals (score: 629, IQR: 538–683) ($P < 0.001$). An advanced level of IPC performance was achieved by 73% (135/185) of private hospitals and 62% (51/82) of public hospitals. (Table 2).

The median overall IPC score in level 2 hospitals (score: 635, IQR: 525–698) was significantly lower compared with level 3 hospitals (score: 683, IQR: 604–730) ($P < 0.001$) (data not shown). An advanced level of IPC performance was achieved in 59% (61/103) of the level 2 hospitals and 76% (125/164) of level 3 hospitals (Table 2).

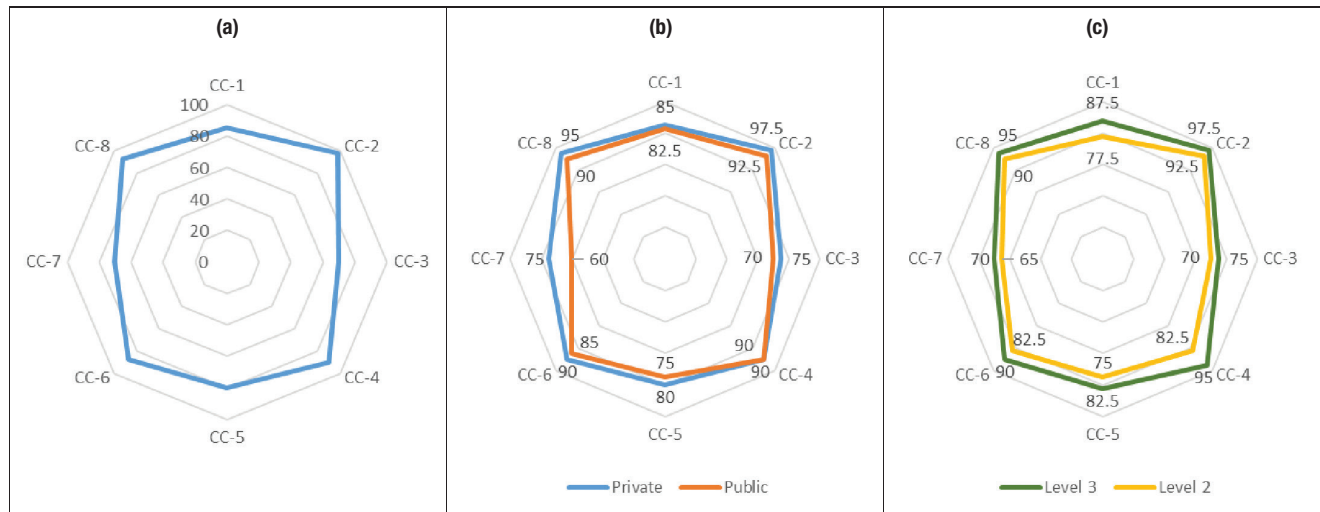
IPC performance by province

The overall IPC score varied significantly across the provinces evaluated ($P < 0.001$), with highest median score in Nariño (738) and the lowest in Guainía (400) (Figure 2). The only hospital categorized as having inadequate IPC performance was in the Arauca region. The majority of hospitals in Bolívar, Guainía and Magdalena were categorized as being at the basic level (Table 3).

DISCUSSION

This first countrywide self-assessment of IPC performance at hospitals showed that 70% of the participating hospitals in

FIGURE 1. Median performance scores across the eight core components of the standardized WHO Infection Prevention and Control Assessment Framework (a) in all 267 hospitals, (b) stratified by hospital type (for 185 private and 82 public hospitals) and (c) stratified by hospital level (for 103 level 2 and 164 level 3 hospitals), Colombia, 2021^a



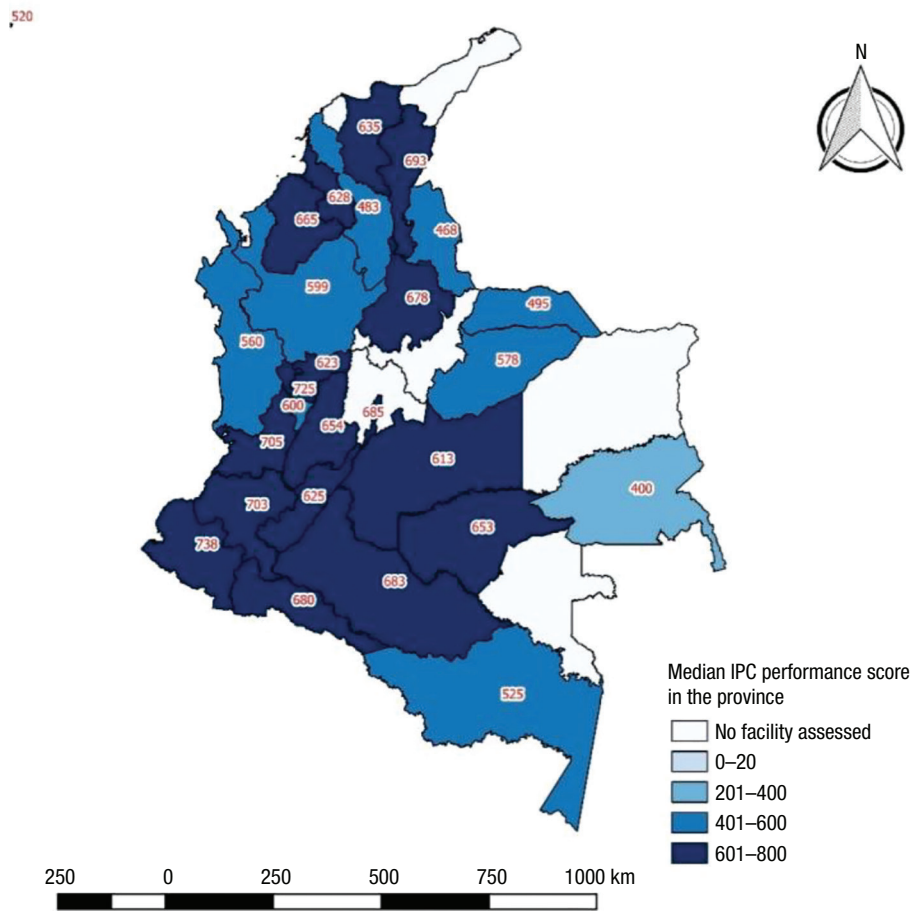
CC: core component; CC-1: IPC program; CC-2: IPC guidelines; CC-3: IPC education and training; CC-4: surveillance for health care-associated infection; CC-5: multimodal strategies for implementing infection prevention and control interventions; CC-6: monitoring/audit of IPC practices and feedback; CC-7: workload, staffing and bed occupancy; CC-8: built environment, materials and equipment for IPC at the facility level; IPC: infection prevention and control.
^aThe radar chart shows the IPC performance score emanating from the center (0) and expanding outwards to a maximum score of 100 for each of the eight core components.
Source: Figure prepared by the authors based on the results of their study.

TABLE 1. Performance on the eight core components in the checklist for the standardized WHO Infection Prevention and Control Assessment Framework for 267 hospitals, Colombia, 2021

Core component	No. (%) of hospitals in each category ^a			
	Inadequate	Basic	Intermediate	Advanced
1 – IPC program	11 (4)	21 (8)	60 (22)	175 (66)
2 – IPC guidelines	1 (<1)	4 (2)	38 (14)	224 (84)
3 – IPC education and training	18 (7)	39 (15)	98 (37)	112 (42)
4 – HAI surveillance	9 (3)	16 (6)	43 (16)	199 (75)
5 – Multimodal strategies for implementing IPC interventions	28 (11)	20 (7)	72 (27)	147 (55)
6 – Monitoring/audit of IPC practices and feedback	9 (3)	14 (5)	53 (20)	191 (72)
7 – Workload, staffing and bed occupancy	15 (6)	44 (16)	101 (38)	107 (40)
8 – Built environment, materials and equipment for IPC at the facility level	2 (1)	2 (1)	26 (10)	237 (89)
Overall IPC performance ^b	1 (<1)	18 (7)	61 (23)	187 (70)

HAI: healthcare-associated infection; IPC: infection prevention and control.
^a Percentages are calculated using 267 facilities as the denominator.
^b Overall IPC performance is the sum of scores for each of the eight core components (maximum score = 800) (13).
Source: Table prepared by the authors based on the results of their study.

FIGURE 2. Choropleth map of the provinces in Colombia depicting the median scores for overall performance derived using the checklist from the standardized WHO Infection Prevention and Control Assessment Framework in the hospitals in each province, Colombia, 2021



IPC: infection prevention and control.
Source: Figure prepared by the authors based on the results of their study.

TABLE 2. Overall performance on the eight core components in the checklist for the standardized WHO Infection Prevention and Control Assessment Framework for 267 hospitals, by hospital level and type, Colombia, 2021

Characteristic	Total no. of facilities	No. (%) of hospitals in each category ^{a,b}			
		Inadequate	Basic	Intermediate	Advanced
Hospital level					
2	103	1 (1)	13 (12)	28 (27)	61 (59)
3	164	0 (0)	5 (3)	34 (21)	125 (76)
Type					
Private	185	0 (0)	13 (7)	37 (20)	135 (73)
Public	82	1 (1)	5 (6)	25 (31)	51 (62)
Total	267	1 (<1)	18 (7)	61 (23)	187 (70)

^a Percentages are calculated using the total number of facilities in the row as the denominator.
^b Overall performance scores in infection prevention and control are categorized as inadequate (0–200), basic (201–400), intermediate (401–600) or advanced (601–800).
Source: Table prepared by the authors based on the results of their study.

TABLE 3. Overall performance on the eight core components in the checklist for the standardized WHO Infection Prevention and Control Assessment Framework for 267 hospitals, stratified by province, Colombia, 2021

Province	No. of facilities self-assessed	No. (%) of hospitals in each category			
		Inadequate	Basic	Intermediate	Advanced
Amazonas	1	0 (0)	0 (0)	1 (100)	0 (0)
Antioquia	38	0 (0)	2 (5)	18 (47)	18 (47)
Arauca	7	1 (14)	2 (29)	2 (29)	2 (29)
Bogota	50	0 (0)	0 (0)	2 (4)	48 (96)
Bolivar	2	0 (0)	2 (100)	0 (0)	0 (0)
Buenaventura	1	0 (0)	0 (0)	0 (0)	1 (100)
Caldas	13	0 (0)	2 (15)	3 (23)	8 (62)
Caquetá	1	0 (0)	0 (0)	0 (0)	1 (100)
Cartagena	2	0 (0)	0 (0)	0 (0)	2 (100)
Casanare	5	0 (0)	0 (0)	3 (60)	2 (40)
Cauca	5	0 (0)	0 (0)	0 (0)	5 (100)
Cesar	8	0 (0)	0 (0)	1 (13)	7 (88)
Choco	1	0 (0)	0 (0)	1 (100)	0 (0)
Córdoba	9	0 (0)	0 (0)	3 (33)	6 (67)
Guainía	1	0 (0)	1 (100)	0 (0)	0 (0)
Guaviare	3	0 (0)	0 (0)	0 (0)	3 (100)
Huila	2	0 (0)	0 (0)	1 (50)	1 (50)
Magdalena	9	0 (0)	7 (78)	1 (11)	1 (11)
Meta	7	0 (0)	0 (0)	3 (43)	4 (57)
Nariño	13	0 (0)	0 (0)	1 (8)	12 (92)
Norte de Santander	1	0 (0)	0 (0)	1 (100)	0 (0)
Putumayo	9	0 (0)	0 (0)	1 (11)	8 (89)
Quindío	4	0 (0)	0 (0)	2 (50)	2 (50)
Risaralda	11	0 (0)	0 (0)	3 (27)	8 (73)
San Andres	2	0 (0)	0 (0)	2 (100)	0 (0)
Santa Marta	11	0 (0)	0 (0)	0 (0)	11 (100)
Santander	11	0 (0)	0 (0)	2 (18)	9 (82)
Sucre	12	0 (0)	1 (8)	4 (33)	7 (58)
Tolima	8	0 (0)	1 (13)	2 (25)	5 (63)
Valle	20	0 (0)	0 (0)	4 (20)	16 (80)
Total	267	1 (<1)	18 (7)	61 (23)	187 (70)

* Percentages are calculated using the number of facilities assessed in each province as the denominator.
Source: Table prepared by the authors based on the results of their study.

Colombia were categorized as achieving the advanced level of promotion and practice. Overall IPC performance scores were higher at private hospitals than at public hospitals and at level 3 hospitals compared with level 2 hospitals. An encouraging finding is that the highest performance of IPC practice and promotion was noted for the categories IPC guidelines (core component 2) and the built environment, materials and equipment for IPC at the facility level (core component 8). It is suggested that implementation of the country guidelines be promoted in each institution and the available infrastructure be improved to optimize processes.

The findings of the study are important because they add justification to the 2022 call by WHO's Director-General to prioritize IPC and its monitoring as a cornerstone of health system strengthening and of providing universal health coverage (22). Furthermore, improved IPC performance and monitoring are relevant to meeting Sustainable Development Goal 3 ("Ensure healthy lives and promote well-being for all at all ages"; Targets

3.1 to 3.3 and 3.8), especially the target related to antimicrobial resistance (Target 3.d and Indicator 3.d.2), and Goal 6 ("Ensure access to water and sanitation for all") and its targets (23). The recent revelation that approximately 5 million deaths annually are associated with bacterial antimicrobial resistance worldwide re-emphasizes the importance of IPC (24).

The strengths of this study are that it included hospitals countrywide; a large number of both public and private hospitals participated; and IPC has been an identified as a national operational research priority. The standardized WHO IPCAF checklist was administered by well-trained hospital leaders and, thus, allows for cross-country comparisons. Finally, we adhered to the STROBE (Strengthening the Reporting of Observational Studies in Epidemiology) guidelines for reporting (25).

There are a few limitations that might have led to an over-estimation of IPC performance. First, hospitals were asked to voluntarily report their IPC performance, and only 61% of

those eligible participated. Thus, it is plausible that those hospitals with less optimal IPC implementation might have opted out. Second, due to human resources shortages, hospital leaders self-assessed their IPC performance without independent validation.

There are also some implications for policy and practice. First, the median overall IPC performance score (672) was appreciably higher than that obtained through WHO's global survey (605) conducted in 2019 and involving 4407 health facilities (20). It is also higher than the median overall performance score reported from the Region of the Americas (568). Assuming that Colombia had similar scores in 2019 to those of the Region of the Americas, the data from our study in 2021 show better performance, which is encouraging. Although the exact reasons for this high performance are not known, we assume that the higher score could be linked to the high performance in the IPC guidelines and built environment components. Four recent studies from Africa, where the latter component was rated as inadequate, showed that overall IPC performance was lower (14–18). This highlights the importance of having the necessary infrastructure for optimal IPC practice.

Second, IPC performance was better in private hospitals than public hospitals. The private hospitals had better scores in the components for workload, staffing and bed occupancy compared with public hospitals. Similar findings were reported in WHO's global survey (20). The small health workforce in Colombia, especially the lack of nurses in the public sector, has been reported earlier (26). Also, the increased demand for hospital beds during the COVID-19 pandemic, especially in public hospitals, might have compromised some hospitals' IPC performance (26). Thus, the additional investments made to increase the number of hospital beds in public hospitals during the COVID-19 period might favorably influence IPC performance in the future.

Third, Colombia should be applauded for setting up an annual IPC performance monitoring system. While 61% of eligible hospitals participated in this assessment, there is a need to bring on-board the remaining hospitals. One way forward might be to introduce mandatory IPC performance reporting and certification of hospitals. This would build health system resilience for preventing outbreaks and pandemics now and in the future. Developing a system for validating IPC self-assessments at hospitals should also be considered.

Fourth, there was notable heterogeneity in IPC performance across provinces. Thus, there is a need to assess the specific gaps in the hospitals that are lagging behind at the inadequate or basic level. Information about gaps would help hospitals implement corrective measures and allow harmonization of IPC performance countrywide. The Ministry of Health and Social Protection monitors the implementation of improvement plans in the provinces and hospitals that have inadequate or basic levels of IPC performance according to the self-assessment.

Finally, two areas that could merit further attention are the components addressing workload, staffing and bed occupancy, and IPC education and training. Because the current assessment was conducted during the COVID-19 pandemic, the shortages of staff and beds could be due to higher inpatient admissions at hospitals. Also, offering education and training may not have been possible because health care staff were busy caring for the surge of patients admitted with COVID-19. These two

components have also been highlighted by the WHO global survey as needing more attention (20).

In conclusion, this countrywide self-assessment in 2021 showed that 70% of participating hospitals had achieved an advanced level of IPC, which is encouraging in terms of building health system resilience. Since only 61% of all eligible hospitals participated, an important next step is to ensure the participation of all hospitals in future assessments. There is also a need to bridge the gaps in IPC performance across the provinces.

Authors' contributions. SMC and RZ conceived the idea for the study and acquired the data. SMC, AA, PT and YC were involved in drafting the manuscript. SMC, AA and PT were involved analyzing and interpreting the data. AA, PT, JR, YC, CC and RZ critically reviewed and revised the manuscript. All authors reviewed and approved the final version.

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Nivel avanzado de prevención y control de infecciones en hospitales de Colombia en el 2021

RESUMEN

Objetivo. El objetivo de este estudio es determinar el desempeño de los programas de prevención y control de infecciones (PCI) en relación con ocho componentes básicos en hospitales de nivel 2 y 3 de todas las provincias de Colombia.

Métodos. En este estudio transversal se emplearon datos de autoevaluación del desempeño de los programas de PCI informados voluntariamente al Ministerio de Salud y Protección Social por parte de los hospitales durante el 2021. Cada uno de los ocho componentes básicos de la lista de verificación de la Organización Mundial de la Salud incluidos en el *Marco de evaluación de prevención y control de infecciones al nivel de establecimientos de atención de salud* recibe una puntuación máxima de 100, y la puntuación general del desempeño del programa es la suma de las puntuaciones de estos componentes. Este desempeño se califica según la puntuación general como inadecuado (0-200), básico (201-400), intermedio (401-600) o avanzado (601-800).

Resultados. De los 441 hospitales de nivel 2 y nivel 3, 267 (61%) informaron datos sobre su desempeño. La mediana (rango intercuartil [IQR]) de la puntuación general fue de 672 (IQR: 578–715). De los 267 hospitales que proporcionaron información, 187 (70%) alcanzaron el nivel avanzado. La mediana de la puntuación general fue significativamente mayor en los hospitales privados (690, IQR: 598-725) que en los hospitales públicos (629, IQR: 538-683) ($p < 0,001$). En el caso de los componentes básicos, las puntuaciones más altas fueron para la categoría que evalúa las directrices de PCI (puntuación mediana: 97,5) y más bajas para la categoría que evalúa la carga de trabajo, la dotación de personal y la ocupación de camas (puntuación mediana: 70). La mediana de las puntuaciones generales de PCI varió entre las provincias ($p < 0,001$).

Conclusiones. Esta evaluación a nivel nacional mostró que el 70% de los hospitales encuestados lograron un nivel avanzado autoinformado del desempeño en cuanto a la PCI, lo que refleja el progreso en fortalecimiento de la resiliencia del sistema de salud. Dado que solo participó el 61% de los hospitales que reunían las condiciones, el siguiente paso importante es garantizar la participación de todos los hospitales en futuras evaluaciones.

Palabras clave

Investigación operativa; programa de control de infecciones hospitalarias; infección hospitalaria; programas de autoevaluación.

Alto nível de prevenção e controle de infecções em hospitais da Colômbia, 2021

RESUMO

Objetivo. Este estudo teve o objetivo de determinar o desempenho de programas de prevenção e controle de infecções (PCI) quanto a oito componentes centrais em hospitais secundários e terciários de todas as províncias da Colômbia.

Métodos. Este estudo transversal utilizou dados de desempenho autoavaliado de PCI enviados voluntariamente pelos hospitais ao Ministério da Saúde e Proteção Social em 2021. Cada um dos oito componentes centrais da lista de verificação na Estrutura de Avaliação de Prevenção e Controle de Infecções da Organização Mundial da Saúde contribui com uma pontuação máxima de 100. A pontuação total de desempenho de PCI é a soma das pontuações nesses componentes. De acordo com a pontuação total, o desempenho de PCI é classificado nas seguintes categorias: inadequado (0-200), básico (201-400), intermediário (401-600) ou avançado (601-800).

Resultados. Dos 441 hospitais secundários e terciários, 267 (61%) informaram o desempenho de PCI. A mediana (intervalo interquartil [IIQ]) da pontuação total de PCI foi 672 (IIQ: 578-715). Dos 267 hospitais que disponibilizaram informações, 187 (70%) alcançaram um nível de PCI avançado. A mediana da pontuação total de PCI foi significativamente maior nos hospitais privados (690, IIQ: 598-725) do que nos públicos (629, IIQ: 538-683) ($p < 0,001$). Entre os componentes centrais, as pontuações mais altas foram observadas na categoria de avaliação das diretrizes de PCI (pontuação mediana: 97,5), ao passo que as mais baixas ocorreram na categoria de avaliação da carga de trabalho, dotação de pessoal e taxa de ocupação de leitos (pontuação mediana: 70). As medianas das pontuações totais de PCI variaram entre províncias ($p < 0,001$).

Conclusões. Esta avaliação nacional mostrou que 70% dos hospitais pesquisados alcançaram um nível avançado de desempenho autorrelatado de PCI, o que demonstra progresso no desenvolvimento de resiliência no sistema de saúde. Como apenas 61% dos hospitais elegíveis participaram, um próximo passo importante é assegurar a participação de todos os hospitais em futuras avaliações.

Palavras-chave

Pesquisa operacional; programa de controle de infecção hospitalar; infecção hospitalar; programas de autoavaliação.