

# Suicide prevention in Latin American prisons: a multiple case study with meta-matrix of policies, programmes and protocols in 17 countries

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## ABSTRACT

**Background** Suicide is one of the most common causes of death in correctional settings. This study aimed to analyse prison suicide prevention policies and procedures across Latin America.

**Methods** For this multiple case study, we collected data on prison suicide prevention in policies (laws), programmes (institutional framework) and protocols (procedures) from 17 Latin American countries, from (1) the public domain and (2) archival records held by prison administrations. The search was conducted using Google, through hand search on prison administration websites and requests to public information departments and prison administrations. Theory-driven thematic analysis was conducted based on 11 key components of suicide prevention in prison. Presence and quality of policies, programmes and protocols were assessed using tailored instruments. Between-country comparisons were made by cross-case analysis.

**Results** Data were retrieved from 17 Latin American jurisdictions. Nine cases had a policy or law, 6 had an institutional plan or programme and 13 had suicide prevention protocols. In 6 of the 17 cases (Argentina, Chile, Colombia, Ecuador, Mexico and Panama), the three elements were present. Among the 13 cases with protocols, 7 (Argentina, Brazil, Chile, Colombia, Mexico, Paraguay and Uruguay) had high, 2 had medium and 4 cases had low quantity and quality of key components. In the composite quality assessment of policies, programmes and protocols, three cases (Argentina, Colombia and Mexico) had high quality, four cases had medium quality and the other seven cases had low quality of suicide prevention in place.

**Conclusion** Many Latin American countries still need to draft policies and develop institutional frameworks for suicide prevention in prison. Most countries may review their suicide prevention protocols in prisons to cover all key components with clear procedures. Prison administrations in Latin America should publish internal plans and protocols for prison suicide prevention to facilitate cross-country policy evaluations and research.

## WHAT IS ALREADY KNOWN ON THIS TOPIC

- Suicide prevention in prison has been assessed in high-income countries, showing high variability in quality.
- No prior studies have assessed and compared prison suicide prevention policies and strategies in Latin American countries or any other low- and middle-income country regions.

## WHAT THIS STUDY ADDS

- This multiple case study evaluates suicide prevention policies, programmes and protocols across 17 Latin American prison systems.
- It identifies gaps in the development of public policies, plans and protocols to prevent prison suicide, providing a basis for service comparisons and developments in the region.

## HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

- This study informs Latin American governments and prison authorities how to improve prison suicide prevention using international comparisons and standards for prevention components.
- It provides a starting point for further implementation and efficacy research of suicide prevention systems in prison.



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including Latin America.<sup>4 5</sup> People with mental health and/or substance use problems in prison present a higher risk for self-harm and suicide.<sup>6</sup> Risk factors for suicide in prisons have been grouped into demographic, clinical, criminological and institutional risk factors. The factors associated with suicide risk were current psychiatric diagnosis, previous suicide attempts, suicidal ideation during the current period of incarceration, single-cell occupancy, a history of self-harm, lack of social visits, serving a life sentence, remand status and having a violent offence conviction.<sup>7</sup> People in prison die by suicide at higher rates relative to community-based populations.<sup>8</sup> Suicide prevention in prison is a worldwide public health priority. However, in prisons, several modifiable clinical and institutional risk factors for self-harm and suicide behaviours have been identified that can be targeted for suicide prevention.<sup>7 9</sup>

Such prevention activities in prison systems can effectively reduce the number of suicide deaths.<sup>10</sup> Prison suicide prevention requires policies to establish goals, programmes to provide frameworks and institutional structures, and protocols to define specific procedures, with mechanisms to ensure practice.<sup>11-13</sup> Policy implementation follows a structured process, and policy goals need to be translated into programmes and protocols.<sup>11</sup> This process relies on instruments such as laws, institutional frameworks and regulations that translate policies into practice.<sup>12</sup> Effective policy implementation requires formal procedures and practical adaptations.<sup>13</sup> Policies establish goals, programmes provide frameworks and institutional structures, and protocols define specific procedures and mechanisms to ensure practice. Key components that should typically be present in protocols for suicide prevention in correctional settings have been proposed.<sup>14</sup> There is, however, a paucity of rigorous evaluations of suicide prevention in prison, particularly in LMICs, which creates a bias towards recommendations from countries with higher economic resources.<sup>15</sup> Little is known about suicide prevention in the correctional systems of LMICs, including most Latin American countries.<sup>16</sup>

Meanwhile, a comparison of prison suicide prevention strategies and activities across eight high-income jurisdictions revealed substantial heterogeneity, and the importance of correctional staff, peer support, religious leaders and community workers in addition to mental health staff.<sup>10</sup> There is a need to assess suicide prevention strategies across jurisdictions to inform policy, prevention and service development.<sup>8 17</sup> Therefore, this study aimed to analyse and compare policies, programmes and protocols to reduce prison suicide across Latin America.

## METHODS

We used a multiple case study design, an empirical method where multiple contemporary phenomena which cannot be controlled are investigated in depth. It can be used in policy, programme and protocol evaluations

since it can provide in-depth knowledge of their effectiveness in specific contexts.<sup>18</sup> We followed the Standards for Reporting Qualitative Research guidelines.<sup>19</sup> Each country was a case, and we inferred the geographical subregions of Central and South America from the United Nations geographical regions.<sup>20</sup> We included countries where the official language was Spanish or Portuguese due to some similarities in historical, cultural and socioeconomic backgrounds. Contacts of the prison administration in each country were retrieved from the World Prison Brief (<https://www.prisonstudies.org/>). The information sources for each case (jurisdiction) included: documents from the public domain and archival records held by the prison administrations. A protocol for the study was registered in OSF, ZW4UE (<https://osf.io/zw4ue>).

### Context of prison systems in Latin America

Latin American prison systems are characterised by a centralised and hierarchical administration within the ministries of justice or government, with predominating closed regimes. Prisons are classified by security level, sex, procedural status or sentence and are managed locally. Some systems operate with private participation through service contracts or concessions (Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela and Uruguay).<sup>21 22</sup>

### Documents from the public domain

We searched for documents in the public domain, including public policies, programmes, projects, evaluation studies, clinical guidelines, news, books and scientific articles relating to suicide prevention. The search was conducted using Google during 1 October 2023 to 6 January 2025, and we employed search terms in Spanish and Portuguese ("suicide prevention") AND ("penitentiary system" OR "prison") AND ("policy" OR "program" OR "protocol" OR "project" OR "guideline") AND (name of the country). A Google search was conducted for each case, and the titles up to the fifth page of the results were reviewed for eligibility (see below).

### Archival records

We searched (n=17) prison administration websites for publicly available policies, programmes or plans and protocols. We contacted (n=17) prison administrations and public information departments in each jurisdiction via email requesting information related to suicide prevention. Emails and requests were repeated after at least 1 month if unanswered.

### Eligibility assessment

Policies, programmes and protocols published or provided by public information departments or prison administrations from 17 Latin American jurisdictions in Spanish or Portuguese were examined. The documents and archival records were screened for inclusion and hand searched using key terms such as 'suicide', 'prevention' or 'self-harm' (in Spanish or Portuguese). We included policies, programmes and protocols from

prison administrations where suicide prevention was considered or suicide prevention policies, programmes and protocols used for the general population in which imprisoned people were considered. We excluded policies, programmes or protocols in which suicide prevention was not considered, or suicide prevention policies, programmes or protocols for the general population in which imprisoned people were not considered.

### Data extraction and analysis

First, we examined the presence and type (policy, programme or protocol) of the retrieved documents. In the further assessment of protocols, we followed an analysis strategy based on theoretical propositions.<sup>18</sup> We used a standardised data extraction process using theoretical propositions from 11 key components for preventing suicide in prisons (correctional staff training in suicide prevention, suicide screening at intake, postintake suicide risk observation, management following screening, development of suicide profiles, communication between areas about suicidal behaviour, social interventions, suicide-safe environment, mental health treatment, suicide attempt procedures and death by suicide procedures) established by the Task Force on Prison Suicide of the International Association for Suicide Prevention.<sup>14</sup> Theory-driven thematic analysis was performed using a deductive coding process<sup>23</sup> to identify and codify the key components<sup>14</sup> in the assessed documents. We created a meta-matrix for systematic case comparisons.<sup>24</sup> The search within documents and coding was conducted by PAC-G, then cross-checked independently by LB and inconsistencies were resolved with APM.

### Presence and quality assessment

To assess the transparency, reporting and quality of suicide prevention services, we modified an existing tool<sup>10</sup> to create three assessments. The first identified the presence of public policies, programmes and protocols according to the eligibility assessment. The second assessed the structure and quality of each key component. For each component, a score between 0 and 2 points was assigned, one point for the presence of each key component in a protocol and a second for the clear description of a procedure to follow. A total score between 0 and 22 was assigned to each jurisdiction. Scores of 0–7 points were considered low quality, 8–15 points medium quality and 16–22 points high quality. The third was a composite assessment of the presence and quality of suicide prevention policies, plans and protocols for imprisoned people. A score from 0 to 2 points was assigned for each of the three elements. A score between 0 and 6 was assigned to each jurisdiction. A score of 0–2 points was considered low quality, 2–4 points medium quality and 5–6 points was classified as high quality.

## RESULTS

We assessed 331 documents for this study, of which 95 were included: 61 were obtained from searches in the

public domain, 18 archival records from prison websites and 16 archival records provided by email correspondence with prison administrations or information departments. Documents from the public domain reported on 16 of the 17 eligible prison systems, and archival records on 14 of the 17 prison systems, so that documents on all 17 potential cases were included (figure 1, online supplemental material pp 2–7).

### Presence of policies, programmes and protocols to prevent prison suicide

The presence or absence of public policies, programmes and protocols is shown in table 1. Nine cases (Argentina, Chile, Colombia, Costa Rica, Ecuador, Mexico, Nicaragua, Panama and Uruguay) had public policies for suicide prevention in prison, six cases (Argentina, Chile, Colombia, Ecuador, Mexico and Panama) had specific programmes for suicide prevention in prison. 13 cases (Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Mexico, Panama, Paraguay, Peru and Uruguay) had protocols for suicide prevention in which people in corrections were included. Four cases (Bolivia, Honduras, Nicaragua and Venezuela) had no protocols for suicide prevention in prison; therefore, they were excluded from the key components assessment.

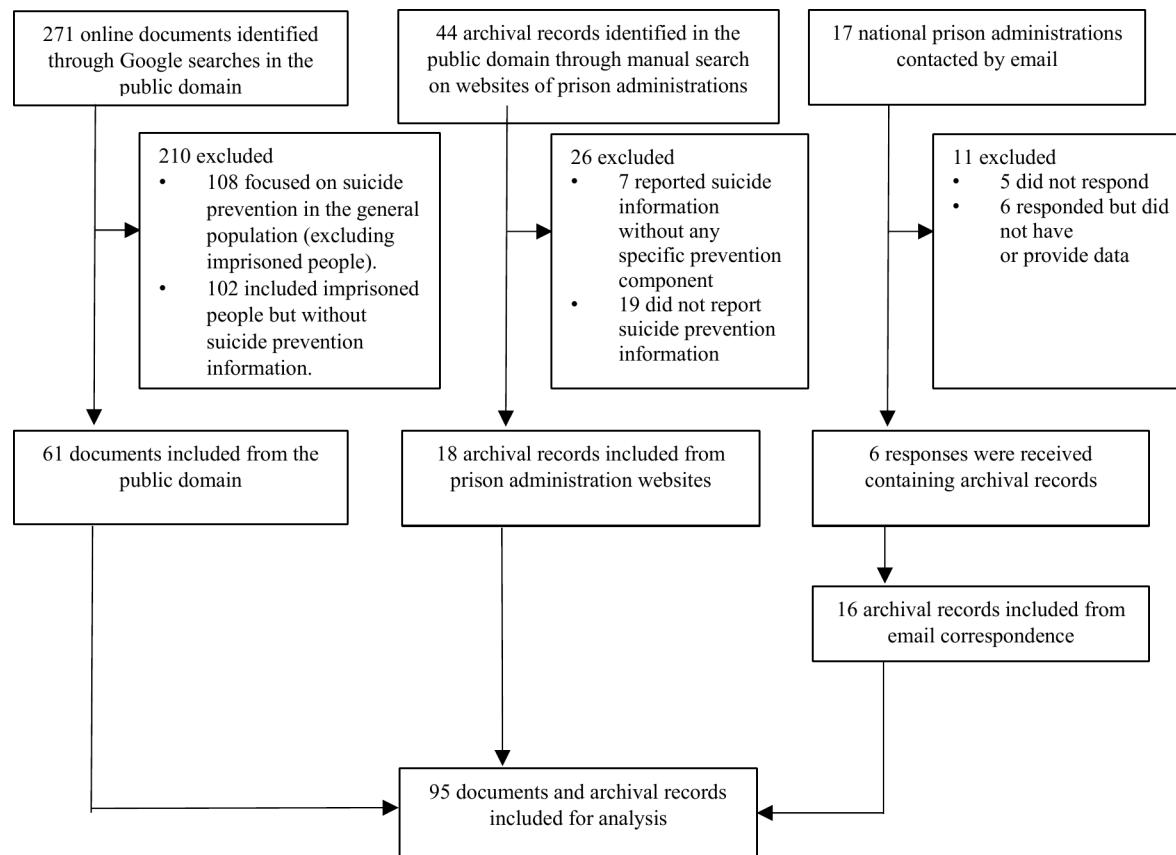
### Key components of protocols

We assessed the presence and quality of each of the 11 components, assigning 0–2 points, in the protocols of 13 cases. Results are shown in table 2. In the following, we describe the findings for each component:

*Correctional staff training in suicide prevention:* while general training protocols were available in several cases, specific procedures for suicide prevention training were found in eight cases (Argentina, Chile, Colombia, Costa Rica, Mexico, Panama, Paraguay and Uruguay). Only in three cases (Chile, Colombia and Mexico) was the training frequency specified in systematic procedures that provided clear steps to follow.

*Suicide screening at intake:* whereas general health and mental health intake screening was included in protocols of all cases, suicide risk screening at intake was specified in 10 cases (Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico, Panama, Paraguay and Uruguay). In Panama, translated versions of international documents were used. Specific time frames for intake screening were found in Argentina (24 hours), Brazil (20 days), Chile (24 hours), Ecuador (24 hours), Mexico (72 hours) and Paraguay (72 hours).

*Postintake suicide risk observation:* general protocols and procedures were found in 10 cases (Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, Panama, Paraguay, Peru and Uruguay), with specific steps focusing on the observation and detection of suicide risk in 8 cases (Argentina, Brazil, Chile, Colombia, Mexico, Paraguay, Peru and Uruguay). In Mexico, regular health campaigns were conducted, including suicide risk and self-harm assessments. In Uruguay, regular health assessments,



**Figure 1** Flow chart based on the Preferred Reporting Items for Systematic reviews and Meta-Analyses.<sup>32</sup>

**Table 1** Presence of public policies, programmes and protocols by country

	Public policies or laws	Programmes or plans	Protocols
Country			
Argentina	X	X	X
Bolivia			
Brazil			X
Chile	X	X	X
Colombia	X	X	X
Costa Rica	X		X
Ecuador	X	X	X
El Salvador			X
Guatemala			X
Honduras			
Mexico	X	X	X
Nicaragua	X		
Panama	X	X	X
Paraguay	X		X
Peru			X
Uruguay			X
Venezuela			

X=Presence of the element. Blank space=Absence of the element.

including suicide risk screening, were conducted every 3–6 months.

*Management following screening:* the management of suicide risk was mentioned in protocols of 10 cases (Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico, Panama, Paraguay and Uruguay), with structured suicide prevention services in 7 cases (Argentina, Brazil, Chile, Colombia, Mexico, Paraguay and Uruguay). Usually, a referral to professional health services was recommended (eg, psychologist, psychiatrist or social worker), and in several cases, staff supervision or peer support measures (Argentina, Brazil, Chile, Colombia, Ecuador, Mexico and Paraguay) or suicide-safe environment measures were considered (also see component *suicide-safe environment*).

*Development of suicide profiles:* in most cases, interventions targeted vulnerable groups within the general prison population. However, the identification of suicide high-risk groups was conducted in 10 cases (Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, Panama, Paraguay, Peru and Uruguay), of which 7 cases (Argentina, Brazil, Chile, Mexico, Paraguay, Peru and Uruguay) used more structured and context-tailored risk profiles. All cases were more focused on risk factors rather than creating risk profiles. Argentina and Brazil identified levels of suicide risk grouped by risk factors. In Chile, Colombia, Mexico and Uruguay, specific groups or profiles at risk of suicide were identified. Panama used adoptions or

**Table 2** Key components and procedures for suicide prevention in protocols implemented by prison administrations of Latin American countries

Country	Component	Score						Quality	
		Staff training	Intake suicide screening	Postintake risk monitoring	Risk management	Suicide risk profiles	Communication between areas	Social interventions	
Argentina	1	2	2	2	2	2	2	2	21
Brazil	0	2	2	2	2	2	2	2	20
Chile	2	2	2	2	2	2	2	2	22
Colombia	2	2	2	2	1	2	2	2	21
Costa Rica	1	2	1	1	1	0	0	0	9
Ecuador	0	1	0	1	0	1	0	0	4
El Salvador	0	0	0	0	0	0	1	0	1
Guatemala	0	0	0	0	0	0	0	0	1
Mexico	2	2	2	2	2	1	0	2	17
Panama	1	1	1	1	0	0	2	1	9
Paraguay	1	2	2	2	2	2	1	1	17
Peru	0	0	2	0	2	1	0	0	6
Uruguay	1	2	2	2	1	1	2	2	18

0=Component or procedure not present in any protocol; 1=General or vague description of the component or procedure included in protocol; 2=Specific actions or structured procedures of the component included in protocol.

translations from international documents to identify vulnerable groups.

*Communication between areas:* protocols and procedures for interdisciplinary communication about suicidal behaviour between different areas in correctional systems were found in nine cases (Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, Paraguay, Peru and Uruguay), with more structured steps in six cases (Argentina, Brazil, Chile, Colombia, Mexico and Paraguay). Protocols for referrals were used in Costa Rica, Colombia, Mexico, Paraguay and Peru, but in most cases lacked specific advice on multidisciplinary meetings. Only Argentina, Brazil, Colombia (Colombia with adopted documents), Chile and Uruguay had protocols for multidisciplinary meetings involving the communication of suicidal behaviour.

*Social interventions:* protocols for social interventions were available in eight cases (Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay and Uruguay), with more structured steps in five (Argentina, Brazil, Chile, Colombia and Paraguay). Social interventions were focused on family support (Mexico, Chile, Colombia, Paraguay, Brazil and Uruguay), peer support (Argentina, Chile, Colombia, Ecuador, Mexico and Paraguay) and meaningful activities (Brazil, Chile, Colombia and Paraguay).

*Suicide-safe environment:* seven cases (Argentina, Brazil, Chile, Colombia, Panamá, Paraguay and Uruguay) focused on controlling access to suicide means after suicide risk was identified. Universal preventive measures were usually not in place. Only Argentina and Brazil had architectural guidelines to prevent suicide.

*Mental health treatment:* protocols were found in 11 cases. In El Salvador, Ecuador, Mexico, Paraguay and Panama, the protocols or procedures were process-oriented, focusing on how to make mental health treatment available. In other cases (Argentina, Brazil, Chile, Colombia, Costa Rica and Uruguay), the protocols or procedures, in addition to describing process, provided steps to enable staff and health practitioners to understand what mental health interventions were required.

*Suicide attempt procedures* were available in eight cases. Four cases (Brazil, Mexico, Peru adopted from the general population and Uruguay) had logistical or process-oriented steps to manage suicide attempts. Four cases (Argentina, Chile, Colombia and Paraguay) had clinically oriented steps to manage the attempts, including postvention measures.

*Death by suicide procedures* were provided in seven cases. In two cases, this was focused on legal issues (Guatemala and Panama), one case included psychological autopsy in the procedure (Argentina) and four cases had all the above plus postvention procedures (Brazil, Chile, Colombia and Uruguay).

Eight cases (Argentina, Brazil, Chile, Colombia, Mexico, Panama, Paraguay and Uruguay) had more than 66% of the 11 key components for suicide prevention in place, three cases (Costa Rica, Ecuador and Perú) had

between 33% and 66% of the components and the nine remaining cases had less than 33% of the components covered.

### Composite suicide prevention assessment

Three cases (Bolivia, Honduras and Venezuela) had none of the three elements (public policies, programmes and protocols); therefore, they were excluded from the composite prevention assessment. For the composite suicide prevention assessment, the presence and quality of policies, programmes and protocols were scored in 14 cases. Each element was scored from 0 to 2 points, one point for the presence and a second point for the quality:

*Public policies and laws:* In nine cases, preventing suicide in prison was part of national laws or public policies. In three of these cases (Argentina, Colombia and Mexico), measures, regulations or strategies to prevent suicide among people in prison were included in public policies or laws. Argentina has a framework including a law and a public policy which establish intersectoral work for suicide prevention, through social inclusion, continuous care and promotes community and family reintegration, including incarcerated people. Structured suicide prevention regulations and measures for incarcerated individuals are defined through this framework, focused on systematic screening, mental health treatment, meaningful occupational activities, staff training, social assistance, family visits and community reintegration. Colombia has institutional and public policies that integrate correctional and public health perspectives. These policies establish a framework that identifies imprisoned people as a high-risk vulnerable group and promotes multisectoral work between justice, health and social sectors. This framework emphasises meaningful educational and physical activities, access to mental health treatment, substance use regulation, reduced access to means, early detection and staff training. Mexico incorporates national policy frameworks and laws with an interdisciplinary and interinstitutional approach to suicide prevention, positioning prison as a high-risk setting. It includes intake screening and risk monitoring, occupational activities, mental health treatment, community contact, security and access to means regulations, staff training, identification of vulnerable groups, suicide attempt procedures, updated suicide death registries and information systems and protocol development.

In six of the remaining cases (Chile, Costa Rica, Ecuador, Nicaragua, Panama and Paraguay), prevention of suicide in prison was established as a need. Suicide prevention among people in correctional settings was not yet part of national policies in the remaining five cases.

*Programmes and plans:* In the second element of the assessment, six cases had a programme that included people in prison. In two cases (Argentina and Colombia), structured programmes were available with goals and activities to prevent suicide in prison. In Chile and Mexico, there were programmes for the general population that also considered people in prison. In Panama, a training

**Table 3** Composite quality assessment of public policies, programmes and protocols by country

Country	Public policies or laws*	Programmes or plans†	Components included in protocols‡	Score	Quality
Argentina	2	2	2	6	High
Brazil	0	0	2	2	Low
Chile	1	1	2	4	Medium
Colombia	2	2	2	6	High
Costa Rica	1	0	1	2	Low
Ecuador	1	1	1	3	Medium
El Salvador	0	0	0	0	Low
Guatemala	0	0	0	0	Low
Mexico	2	1	2	5	High
Nicaragua	1	0	0	1	Low
Panamá	1	1	2	4	Medium
Paraguay	1	0	2	3	Medium
Peru	0	0	1	1	Low
Uruguay	0	0	2	2	Low

\*0=Suicide prevention in prison is not included in public policies or laws; 1=The need to develop or implement suicide prevention in prison is mentioned in public policies or laws; 2=Specific regulations on suicide prevention in prison are included in public policies or laws.  
 †0=There are no programmes or plans for suicide prevention in prison; 1=The need to develop or implement suicide prevention in prison or initial measures is mentioned in programmes or plans; 2=There are specific programmes or plans for suicide prevention in prison, or they are part of general national programmes or plans.  
 ‡0 = There are 33% or fewer of the key components covered by the protocols; 1=There are between 34% and 66% of the key components covered by the protocols; 2=There are 67% or more of the key components covered by the protocols.

programme for prison staff included suicide prevention. In Ecuador, a pilot programme was mentioned, but no further information was available.

**Protocols:** The quality of the key components in protocols was high in 7 of the 13 assessed cases (Argentina, Brazil, Chile, Colombia, Mexico, Paraguay and Uruguay), following structured procedures. Two cases had medium-quality key components (Costa Rica and Panama), some without structured steps to follow and others were absent. Four cases (Ecuador, El Salvador, Guatemala and Peru) had low-quality key components, mostly without protocols or procedures.

Composite scores are presented in **table 3**. Assessing the composite presence and quality of policies, programmes and protocols of 14 cases, 3 cases (Argentina, Colombia and Mexico) were of high quality, providing systematic, structured suicide prevention protocols that were aligned with institutional programmes and national policies. Four cases (Chile, Ecuador, Panama and Paraguay) were included in the medium-quality group. Although structured protocols for suicide prevention were available, public policies or programmes, when available, only established the need for suicide prevention in prisons. Seven cases (Brazil, Costa Rica, El Salvador, Guatemala, Nicaragua, Peru and Uruguay) were in the low-quality group, where in most cases people in prison were not yet considered in public policies or programmes for suicide prevention. Most of the cases in this group did not have

structured procedures to prevent prison suicide, or only had a few of the key components included in protocols.

## DISCUSSION

This study provides a comparison of prison suicide prevention policies, programmes and protocols across Spanish and Portuguese speaking jurisdictions in Latin America. The majority of jurisdictions had low-quality or medium-quality prison suicide prevention policies, plans and protocols in those documents. Several jurisdictions were identified with absence or low number of the key components for suicide prevention covered by protocols.

Although national strategies for suicide prevention in the general population are necessary and exist in several Latin American countries,<sup>15</sup> they are not sufficient. Specific protocols focusing on policy implementation, strategies expressed in programmes and procedures are needed.<sup>25</sup> In this Latin American study on suicide prevention in prison, several gaps were identified. Six of the 17 countries had public policies, programmes and protocols. In the remaining 11 countries, at least one of the three elements was absent. However, all countries should aim to have policies, programmes and protocols, including clear procedures for key components.<sup>14</sup> The quality of policies for suicide prevention in correctional settings substantially varies between jurisdictions.<sup>26</sup> In the composite quality assessment of this study, only 3 of the



17 countries had comprehensive and high-quality policies, programmes and protocols with key components in place. Although several of the other 14 countries had policies and programmes for suicide prevention among imprisoned people, many lacked clear regulations and procedures for effective implementation. This study also highlights the need for policy and service development in countries where suicide prevention in prison is not yet considered in any policy, programme or protocol, such as Bolivia, Honduras and Venezuela.

Latin American prison systems are characterised by large, overcrowded prisons in urban locations, high levels of violent interactions and a lack of control over the interior by guards. Diverse populations are affected by incarceration, including mothers living with children, older adults, sexual minorities, individuals with physical and mental disabilities and indigenous people. They often face harsh conditions, poor hygiene and lack of basic services. Even though work, healthcare, education and community reinsertion programmes exist, their scope is limited. Prison systems show different degrees of development depending on national context.<sup>21</sup>

Prison systems differ with respect to incarcerated populations and local conditions, which may influence suicide rates in diverse ways. Suicide prevention services may then differ in response to needs and available resources. However, basic elements are common across systems, which could provide orientation for best practices.<sup>14</sup> In this study, several key components were contained in the protocols of most cases; however, the presence and quality of policies, programmes and protocols containing these components differed across cases. These differences in quality could be explained by (1) the resources available, because countries with lower per capita income may invest less in the correctional systems; (2) the organisational structure of correctional services and public health services, since this may affect the availability of medical practitioners; and (3) suicide prevention paradigms. Most systems agree on the importance of mental health services. However, they differ in acknowledging other partners for suicide prevention and how they link to prevention depending on the history, culture and circumstances of each case.<sup>10</sup> In this study, the cross-case differences may be interpreted through this explanatory framework; cases with high quality in the composite assessment have policies and programmes that facilitate allocation of resources and provide more structure to the prison system, complemented with protocols that provide or strengthen specific paradigms for suicide prevention. Different prevention paradigms should be analysed for improving effectiveness and overcoming barriers to suicide prevention at individual and environmental levels. Collaborations between policymakers from multiple government departments, researchers and practitioners have the potential to improve the effectiveness of policies, programmes and protocols to prevent suicide in prison.<sup>25</sup> Economic challenges to effective prevention may be pronounced in several Latin American LMICs.

Developing prevention measures must consider the understaffed and underfunded situation of correctional settings in Latin America.<sup>26</sup> Even though passing laws and creating institutional frameworks are low-cost instruments, barriers to implementing specific procedures can include a lack of infrastructure and human resources. Correctional institutions have financial pressure to meet their essential needs,<sup>27</sup> and prisons often lack resources in mental health programmes and practitioners, with greater scarcity in remote geographical regions.<sup>26</sup> The need to increase funding has also been identified for the evaluation of suicide prevention in different settings, since this can optimise the use of resources and effectiveness.<sup>28</sup> Furthermore, tailoring to specific cultural and social contexts is necessary.<sup>15 29</sup> Implementing and evaluating prevention systems in prison settings can be challenging. Researchers, practitioners and policymakers should collaborate in service design, implementation and evaluation.<sup>30</sup> Varying quality in suicide prevention implementation across single prison facilities was seen in a statewide assessment in the USA.<sup>31</sup> This means for the Latin American context that key components of prevention procedures in national policies, plans and protocols are a starting point. Further implementation research should assess the extent to which these practices are implemented at the facility level and evaluate their effectiveness. Adherence to protocols may vary between facilities within each criminal justice system; hence, national mechanisms should be in place to encourage and ensure compliance.

This research also has several limitations. The existence of comprehensive policies, programmes and protocols with clear procedures for key components is a starting point, but does not ensure that procedures are followed. This study did not consider differences between correctional facilities within the same countries. Nevertheless, establishing national procedures in protocols is an important starting point. Several prison services lacked publicly available documents and only provided internal data on request through public information units or institutional contact points. Therefore, there may potentially be further documents in countries with lower transparency that we could not access. The backgrounds of the research team in psychiatry, psychology and prison health systems may have shaped the interpretation of the data. The use of multiple data sources, triangulation and independent cross-checking provided a more comprehensive and trustworthy overview of the findings. The lack of standardisation of suicide prevention policies, programmes and protocols may limit the comparisons between countries. This research did not include people with lived experience of incarceration or their family members.

## CONCLUSION

In conclusion, this study sets standards for suicide prevention policies, programmes and protocols in prisons of

Latin America and facilitates international comparisons. Eight Latin American countries should pass policies or laws on suicide prevention in prisons because they are not yet in place. 11 countries need to draft institutional frameworks or programmes, and 4 countries need to create protocols to define procedures for prison suicide prevention. Most countries should work on the completeness and precision of procedures for key components in protocols. In particular, six countries with low-quality to medium-quality coverage of key components should make this effort. Several jurisdictions in Latin America have only limited publicly available information on suicide prevention in prisons and may improve transparency by publishing internal documents to facilitate implementation, research, comparison and interdisciplinary collaboration. Future studies could focus on standards for policy development, alignment and implementation of suicide prevention strategies in prisons involving other LMIC regions.

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#### REFERENCES

- Fair H, Walmsley R. World prison population list (fourteenth edition) London: institute for crime & justice policy research. 2024. Available: [https://www.prisonstudies.org/sites/default/files/resources/downloads/world\\_prison\\_population\\_list\\_14th\\_edition.pdf](https://www.prisonstudies.org/sites/default/files/resources/downloads/world_prison_population_list_14th_edition.pdf) [Accessed 22 May 2025].
- Fritz FD, Fazel S, Benavides Salcedo A, et al. 1324 prison suicides in 10 countries in South America: incidence, relative risks, and ecological factors. *Soc Psychiatry Psychiatr Epidemiol* 2021;56:315–23.
- Almanzar S, Katz CL, Harry B. Treatment of Mentally Ill Offenders in Nine Developing Latin American Countries. *J Am Acad Psychiatry Law* 2015;43:340–9.
- Baranyi G, Scholl C, Fazel S, et al. Severe mental illness and substance use disorders in prisoners in low-income and middle-income countries: a systematic review and meta-analysis of prevalence studies. *Lancet Glob Health* 2019;7:e461–71.
- Mundt AP, Baranyi G, Gabrysch C, et al. Substance Use During Imprisonment in Low- and Middle-Income Countries. *Epidemiol Rev* 2018;40:70–81.
- Fazel S, Hayes AJ, Bartellas K, et al. Mental health of prisoners: prevalence, adverse outcomes, and interventions. *Lancet Psychiatry* 2016;3:871–81.
- Zhong S, Senior M, Yu R, et al. Risk factors for suicide in prisons: a systematic review and meta-analysis. *Lancet Public Health* 2021;6:e164–74.
- Mundt AP, Cifuentes-Gramajo PA, Baranyi G, et al. Worldwide incidence of suicides in prison: a systematic review with meta-regression analyses. *Lancet Psychiatry* 2024;11:536–44.
- Favril L, Shaw J, Fazel S. Prevalence and risk factors for suicide attempts in prison. *Clin Psychol Rev* 2022;97:102190.
- Daigle MS, Daniel AE, Dear GE, et al. Preventing suicide in prisons, part II. International comparisons of suicide prevention services in correctional facilities. *Crisis* 2007;28:122–30.
- Birkland TA. *An Introduction to the Policy Process: Theories, Concepts, and Models of Public Policy Making*. New York:



Routledge, 2019. Available: <https://www.taylorfrancis.com/books/9781315292328>

12 Howlett M, Ramesh M, Perl A. *Studying Public Policy: Policy Cycles & Policy Subsystems*. Oxford: Oxford University Press, 2009.

13 Hill M, Hupe P. *Implementing Public Policy: An Introduction to the Study of Operational Governance*. London: Sage, 2021.

14 Konrad N, Daigle MS, Daniel AE, et al. Preventing Suicide in Prisons, Part I. *Crisis* 2007;28:113–21.

15 World Health Organization. *Preventing Suicide: A Global Imperative*. Geneva: World Health Organization, 2014.

16 Carter A, Butler A, Willoughby M, et al. Interventions to reduce suicidal thoughts and behaviours among people in contact with the criminal justice system: A global systematic review. *EClinicalMedicine* 2022;44:101266.

17 Marzano L, Hawton K, Rivlin A, et al. Prevention of Suicidal Behavior in Prisons. *Crisis* 2016;37:323–34.

18 Yin RK. *Case Study Research and Applications*. Thousand Oaks, CA: Sage, 2018.

19 O'Brien BC, Harris IB, Beckman TJ, et al. Standards for reporting qualitative research: a synthesis of recommendations. *Acad Med* 2014;89:1245–51.

20 United Nations. Geographic regions. 2024. Available: <https://unstats.un.org/unsd/methodology/m49/> [Accessed 19 Dec 2024].

21 Fuchs M-C, González Postigo LE. Sistemas penitenciarios y ejecución penal en américa latina: una mirada regional y opciones de abordaje. Santiago de Chile: Centro de Estudios de Justicia de las Américas (CEJA) / Fundación Konrad Adenauer; 2021.

22 Byrne J, Kras KR, Marmolejo LM. International perspectives on the privatization of corrections. *Criminology & Public Policy* 2019;18:477–503.

23 Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol* 2006;3:77–101.

24 Miles MB, Huberman AM, Saldaña J. *Qualitative Data Analysis: A Methods Sourcebook*. 3rd edn. Thousand Oaks, CA: Sage, 2014.

25 World Health Organization. *Live Life: An Implementation Guide for Suicide Prevention in Countries*. Geneva: World Health Organization, 2021.

26 Cramer RJ, Wechsler HJ, Miller SL, et al. Suicide Prevention in Correctional Settings: Current Standards and Recommendations for Research, Prevention, and Training. *J Correct Health Care* 2017;23:313–28.

27 Fagan TJ, Cox J, Helfand SJ, et al. Self-injurious behavior in correctional settings. *J Correct Health Care* 2010;16:48–66.

28 Platt S, Niederkrotenthaler T. Suicide Prevention Programs. *Crisis* 2020;41:S99–124.

29 World Health Organization. *Suicide Worldwide in 2019: Global Health Estimates*. Geneva: World Health Organization, 2021.

30 Challinor A, Rafferty J, Thomas N, et al. Suicide and self-harm in prisons: The challenge of service evaluation and prevention. *Crim Behav Ment Health* 2024;34:463–8.

31 Rudd BN, Witzig J, Goff CN, et al. A Statewide Evaluation of the Implementation of Evidence-Based Suicide Prevention Guidelines in Juvenile Detention Centers. *Psychiatr Serv* 2024;75:678–88.

32 Page MJ, Moher D, Bossuyt PM, et al. PRISMA 2020 explanation and elaboration: updated guidance and exemplars for reporting systematic reviews. *BMJ* 2021;372:n160.