

ASSESSMENT OF SELF-INFLICTED VIOLENCE IN PERNAMBUCO, 2014–2023

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EVALUACIÓN DE LA VIOLENCIA AUTOINFLIGIDA EN PERNAMBUCO, 2014-2023

Priscilla Muniz Torres¹ Patricya Michelly dos Santos Lima²

ABSTRACT

Objective: To evaluate the self-inflicted violence surveillance system in Pernambuco, Brazil, from 2014 to 2023. **Methods:** An evaluative study using secondary data from the Notifiable Diseases Information System (SINAN), obtained via DATASUS, filtering only self-inflicted violence cases. Data completeness, consistency, and representativeness were assessed according to Centers for Disease Control and Prevention (CDC) criteria. Representativeness was compared to Unified Health System Hospital Information System (SIH/SUS) records, considering person, time, and place variables. **Results:** A 586.9% increase in notifications was observed during the period. Mean completeness and consistency were 72.5% and 93.0%, respectively. Representativeness was considered satisfactory for person variables but unsatisfactory for others. **Final considerations:** SINAN showed moderate completeness and excellent consistency. However, the system's overall representativeness was low.

Keywords: *Health Systems; Suicide; Epidemiology.*

RESUMO

Objetivo: Avaliar o sistema de vigilância das violências autoprovocadas em Pernambuco, entre 2014 e 2023. **Método:** Estudo avaliativo com dados secundários do Sistema de Informação de Agravos de Notificação (SINAN), obtidos via DATASUS, filtrando apenas casos de violência autoprovocada. Avaliaram-se completude, consistência e representatividade dos dados, conforme critérios do *Centers for Disease Control and Prevention* (CDC). A representatividade foi comparada aos registros do Sistema de Informações Hospitalares do Sistema Único de Saúde (SIH/SUS), considerando variáveis de pessoa, tempo e local. **Resultados:** Houve aumento de 586,9% nas notificações no período. A completude e a consistência médias foram de 72,5% e 93,0%, respectivamente. A representatividade foi considerada satisfatória quanto à variável pessoa e insatisfatória nas demais. **Considerações finais:** O SINAN apresentou completude regular e consistência excelente. No entanto, a representatividade global do sistema foi baixa.

Descritores: *Sistemas de Saúde; Suicídio; Epidemiologia.*

RESUMEN

Objetivo: Evaluar el sistema de vigilancia de las violencias autoinfligidas en de Pernambuco, Brasil, entre 2014 y 2023. **Método:** Estudio evaluativo con datos secundarios del Sistema de Información de Agravios de Notificación (SINAN), obtenidos a través de DATASUS, filtrando únicamente los casos de violencia autoinfligida. Se evaluaron la completitud, la consistencia y la representatividad de los datos, según los criterios de los *Centers for Disease Control and Prevention* (CDC). La representatividad se comparó con los registros del Sistema de Información Hospitalaria del Sistema Único de Salud (SIH/SUS), considerando las variables de persona, tiempo y lugar. **Resultados:** Hubo un aumento del 586,9% en las notificaciones durante el período. La completitud y la consistencia promedio fueron del 72,5% y el 93,0%, respectivamente. La representatividad se consideró satisfactoria en cuanto la variable de persona e insatisfactoria en las demás. **Consideraciones finales:** El SINAN presentó una completitud regular y una consistencia excelente. Sin embargo, la representatividad global del sistema fue baja.

Descriptores: *Sistemas de Salud; Suicidio; Epidemiología.*

1 Secretaria Estadual de Saúde. Recife/PE - Brasil. 

2 Escola de Saúde Pública. Fortaleza/CE - Brasil. 

INTRODUCTION

Suicide is characterized as a deliberate act carried out by an individual with the conscious and intentional aim of ending their own life. It is a complex phenomenon influenced by multiple factors, including social, economic, and particularly psychological elements¹.

The epidemiological landscape in Brazil has been marked by a transition process, with an increase in deaths from external causes and a decrease in mortality from infectious and parasitic diseases. In this context, suicide ranks as the third leading cause of death from external factors, surpassed only by homicides and traffic accidents².

In the state of Pernambuco, Brazil, 6,065 suicide deaths were recorded between 1996 and 2015. The average suicide rate in the state from 2000 to 2014 was 4.9 per 100,000 inhabitants. Among all external causes of death in the state, analyzed across two periods (2001–2003 and 2011–2013), self-inflicted deaths accounted for 3.7% and 4.2%, respectively, representing a 15.9% increase between 2001 and 2013^{3,4,5}.

Consequently, suicidal behaviors are recognized as a public health issue due to their high prevalence across diverse cultures and their psychosocial impacts. Given the challenges posed by this complex phenomenon and the difficulties in achieving precise understanding, the creation of the Individual Notification Form for Interpersonal/Self-Inflicted Violence emerged as a measure to record and monitor self-harm cases nationwide. The reporting of interpersonal and self-inflicted violence cases is part of the Violence and Accident Surveillance System (VIVA). VIVA comprises VIVA SINAN, which ensures continuous data collection from public and private health services, and VIVA Survey, responsible for analyzing cases treated at sentinel emergency care units^{6,7,8}.

National violence data are provided by the Informatics Department of the Unified Health System (DATASUS) through information systems such as the Notifiable Diseases Information System (SINAN). SINAN is a platform that continuously collects and records data on notifiable diseases and health conditions, under the responsibility of the Health and Environmental Surveillance Secretariat (SVSA) of the Ministry of Health^{9,10}.

According to Waldman (2009), it is essential that any surveillance system, such as VIVA SINAN, be periodically evaluated and adjusted as needed. A key aspect of this evaluation concerns data quality, ensuring the system generates accurate and useful information to support decision-making by policymakers. As noted by Mota, Almeida, and Viacava¹⁰, the higher the data quality, the greater its potential to influence policy formulation, strategic planning, and action analysis^{10,11}.

Data evaluation enables measuring the problem's scope and facilitates evidence-based interventions. Through such analyses, it is possible to identify risk factors, vulnerable populations, and types of violence requiring urgent intervention, such as sexual violence and suicide attempts. Given the importance of information for decision-making, data quality is critical - from completing the Notification Form to processing and analyzing these records¹². Thus, this study aims to evaluate the

self-inflicted violence surveillance system in the state of Pernambuco from 2014 to 2023.

METHODS

Descriptive evaluative study based on secondary data extracted from DATA-SUS regarding self-inflicted violence cases recorded in the SINAN of Pernambuco.

The study was conducted in Pernambuco, a Brazilian state in the Northeast region comprising 184 municipalities and the Fernando de Noronha archipelago. The analysis period spanned January 2014 to December 2023. The study population consisted of Pernambuco residents with self-inflicted violence cases recorded in SINAN.

For data quality attributes assessment, we used VIVA SINAN data recorded through individual notification and investigation forms for diseases and health conditions. For violence cases, a specific form was used: *Individual Notification/Investigation Form for Interpersonal/Self-Inflicted Violence*, containing 11 sections and 69 variables. Field 54 was filtered to select only self-harm cases^{10,13,14}. For representativeness assessment, in addition to data from VIVA SINAN, we analyzed hospitalization data from the Unified Health System Hospital Information System (SIH/SUS). We evaluated data quality in terms of completeness and consistency, as well as representativeness, following the Centers for Disease Control and Prevention (CDC) criteria.

Completeness was defined as the level of variable completion. Fields left blank or marked as "unknown" were classified as incomplete. Consistency was assessed by examining the degree of coherence between related variables. Representativeness refers to the system's ability to accurately describe who, where, and when the health event of interest occurs, requiring comparison of reported cases characteristics (person/place/time) with all recorded cases in the monitored population.

For representativeness analysis, we compared self-inflicted violence cases reported to SINAN with hospital morbidity data (ICD-10 codes: X60–X84) for intentional self-inflicted violence recorded in the SIH/SUS, for the same period, analyzing year of treatment/care, age group, sex, race/ethnicity, and municipality of residence. A satisfactory parameter was defined as complete agreement across systems for time/person/place variables. Discrepancies were classified as unsatisfactory.

The following criteria were established to assess the degree of completeness: High: $\geq 75.1\%$; Moderate: 50.1% to 75.0%; Low: 25.1% to 50.0%; Very low: $\leq 25.0\%$ ¹¹. Consistency was classified as: Excellent: $\geq 90.0\%$; Moderate: 70.0% to 89.0%; Low: $\leq 70.0\%$ ¹⁶. Representativeness was categorized as: High: 3 satisfactory categories; Moderate: 2 satisfactory categories; Low: 0-1 satisfactory¹⁷. Overall data quality was calculated as the mean of completeness and consistency percentages, using the following parameters: Excellent: $\geq 90.0\%$; Moderate: 70.0% to 89.9%; Low: $\leq 70.0\%$.

The data analysis was conducted using Microsoft Excel, Tabwin, Epi Info 7, and QGIS. The secondary databases used in this study were publicly accessible and contained no detailed personal patient information, ensuring confidentiality. There-

fore, ethics committee approval was waived in accordance with National Health Council Resolution No. 674 (May 6, 2022).

RESULTS

From January 2014 to December 2023, 34,943 cases of self-inflicted violence were reported among Pernambuco residents. The year 2023 recorded the highest number of cases (7,350; 21%), followed by 2022 (5,476; 15.7%) and 2019 (5,069; 14.5%). Considering the number of notifications, there was a 586.9% proportional increase between 2014 and 2023.

The completeness analysis revealed an average variable completion rate of 72.5% across the study period, classified as moderate. Among all variables analyzed, only education level showed low completeness (48%; Table 1).

Table 1 - Number, percentage mean, and completeness parameter for self-inflicted violence notification/investigation form fields by study variables. Pernambuco, 2014–2023.

Variables	N	Mean %	Parameter
Sex	34,935	99.9	High
Race/Ethnicity	33,742	96.6	High
Age	34,861	99.8	High
Education Level	16,784	48.0	Low
Sexual Orientation	20,906	59.8	Moderate
Gender Identity	19,331	55.3	Moderate
Reason for Violence	19,424	55.6	Moderate
Means of Aggression	22,612	64.7	Moderate
Total		72.5	Moderate

Source: SINAN, DATASUS, 2024.

The mean percentage of valid variable combinations across the study period was 93.0% (excellent classification), with the lowest consistency proportion of 69.6% (pertaining to the relationship between "self-harm with perpetrator being the same person", along with "recording the type of self-harm under "Other") (Table 2). Consequently, the overall data quality assessment, considering both consistency and completeness, was classified as moderate (82.7%).

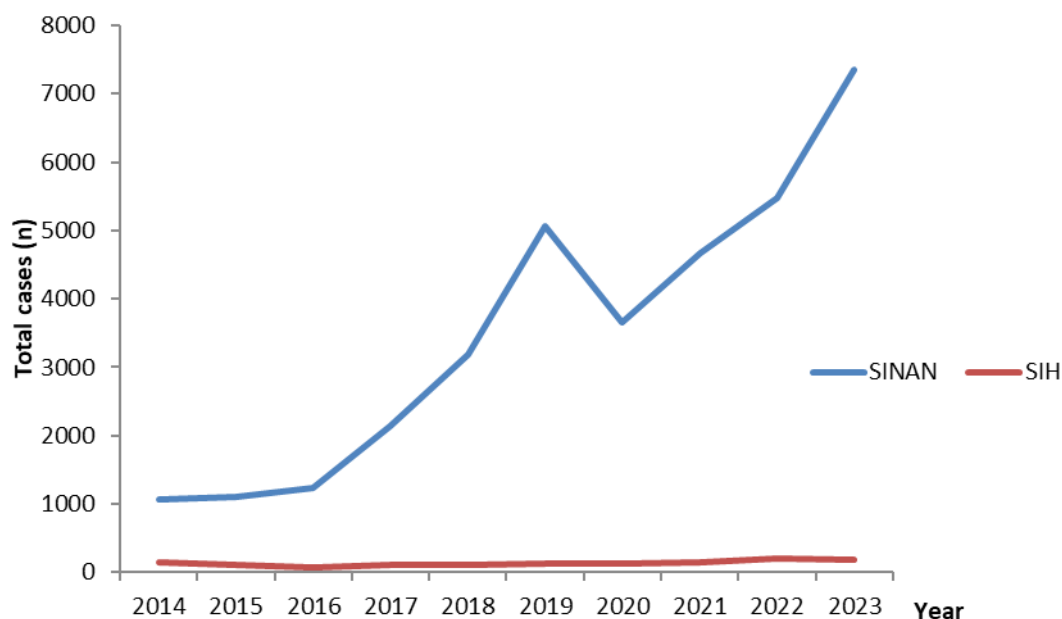
Variable Combinations	Total N	Consistent N	Mean %	Parameter
Date of violence differs from birth date	34,943	34,927	99.9	Excellent
Self-harm with perpetrator = victim	34,943	32,753	93.7	Excellent
Self-harm in individuals >10 years old	34,943	34,383	98.4	Excellent
Self-harm with single involvement party (n=1)	34,943	33,012	94.5	Excellent
Self-harm with perpetrator = victim AND sex matches	32,753	31,110	94.9	Excellent
Self-harm with perpetrator =	32,753	22,792	69.6	Low

victim AND "Other" violence type specified				
Male individual with "Pregnant" field = "Not applicable"	10,012	10,012	100.0	Excellent
Total			93.0	Excellent

Source: SINAN, DATASUS, 2024.

The analysis of time-related representativeness (Figure 1) revealed divergent trends between self-inflicted violence reports in SINAN (596.9% increase) and hospitalizations records in SIH/SUS (27.46% increase) from 2014 to 2023, demonstrating an unsatisfactory parameter.

Figure 1 - Distribution of reported and hospitalized self-harm cases by year, Pernambuco, 2014–2023.



Source: SINAN, SIH/SUS, DATASUS, 2024. Original creation by the author.

For person-based representativeness (Table 3), both systems showed higher proportions in the 20–29 age group (SINAN: 30.5%; SIH/SUS: 26.2%) and among mixed-race individuals (SINAN: 72.5%; SIH/SUS: 66.3%). Sex disparities were noted: SINAN reported 71.3% female cases, while SIH/SUS reported 56.9% male cases, demonstrating a satisfactory parameter.

Table 3 - Distribution and proportion of reported and hospitalized self-inflicted violence cases, by sex, age group, and race/ethnicity. Pernambuco, 2014–2023.

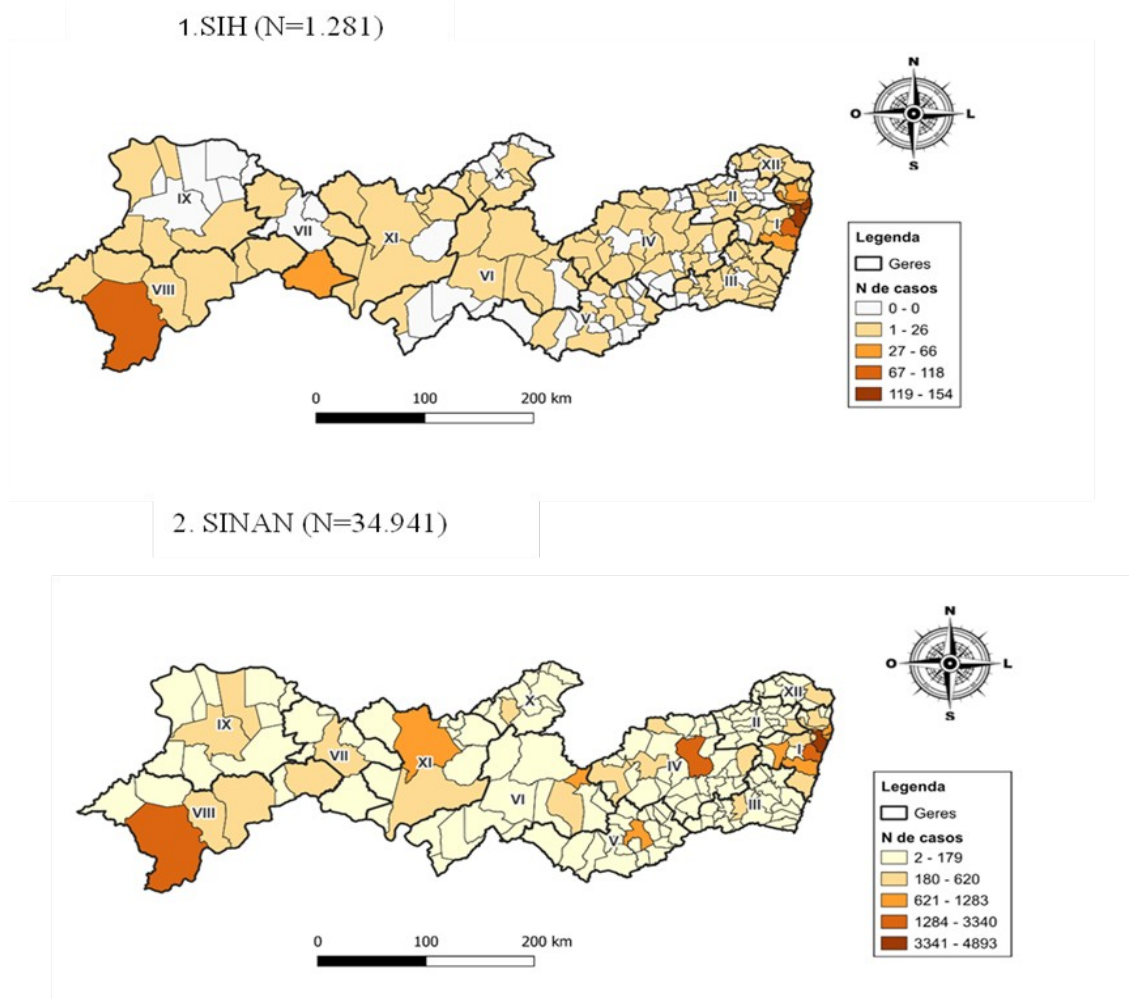
Characteristics	Self- inflicted violence cases in SINAN		Hospital admissions for self- inflicted violence cases in SIH/SUS	
	n	%	n	%
Sex	N=34,935		N=1,281	
Male	10,012	28.7	729	56.9
Female	24,923	71.3	552	43.1
Age group	N=34,861		N=1,281	
0-9 years	560	1.6	21	1.6
10-19 years	10,577	30.3	233	18.2
20-29 years	10,645	30.5	336	26.2
30-39 years	6,405	18.3	290	22.6
40-49 years	3,795	10.9	189	14.8
50-59 years	1,717	4.9	115	9.0
60+ years	1,162	3.3	97	7.6
Race/Ethnicity	N=33,688		N=1,013	
White	5,515	15.8	62	4.8
Black	2,120	6.1	43	3.4
Mixed-race*	25,347	72.5	849	66.3
Asian	428	1.2	59	4.6
Indigenous	278	0.8	0	0.0

*"Parda" was translated as "Mixed-race" following IBGE standards for international audiences.

Source: SINAN, SIH/SUS, DATASUS, 2024.

For place-based representativeness (Figure 2), SINAN data showed higher case concentrations in the municipalities of Recife (4,893 cases; 14.0%), Jaboatão dos Guararapes (3,340; 9.6%) - both part of the metropolitan region - and Petrolina (2,928; 8.4%), followed by inland municipalities Caruaru (1,925; 5.5%) and Vitória de Santo Antão (1,283; 3.7%). Hospitalization data from SIH/SUS showed the highest admission rates in the following municipalities: Paulista (154 cases; 12.0%), Recife (130; 10.1%), Olinda (118; 9.2%), Jaboatão dos Guararapes (116; 9.1%), and Petrolina (89; 6.9%). The distribution pattern differed significantly between the two systems, constituting an unsatisfactory parameter. Consequently, the final system representativeness assessment, evaluating all three components (time, person, and place), was classified as having low representativeness.

Figure 2 – Distribution of reported cases of self-inflicted violence in SIH (1) and Sinan (2), by municipality of residence. Pernambuco, 2014 to 2023



Source: Sinan/SIH, Datasus, 2024. Original creation by the author.

Note: Data extracted on August 21, 2024 (Sinan) and October 14, 2024 (SIH). In Sinan, two cases have "unknown" municipality of residence.

DISCUSSÃO

Analysis of self-inflicted violence case trends in Pernambuco from 2014 to 2023 revealed a 586.9% proportional increase in reported cases, indicating a growing incidence of these events. This finding aligns with global research demonstrating increased identification of self-inflicted violence cases worldwide¹⁸. Within the Brazilian context, this increase may be associated with the implementation of the violence case notification system established through Ministerial Ordinances No. 104/2011 and No. 1,271/2014, which mandated compulsory reporting of specific diseases and health conditions⁸.

A significant decline in new case reports was observed between 2020 and 2021, primarily attributed to the COVID-19 pandemic. During this period, containment measures implemented to curb viral transmission may have increased family cohabitation time, potentially fostering more supportive home environments, and enhanced familial monitoring of individuals with depression, self-harm

behaviors, or suicidal ideation¹⁹. Furthermore, reduced access to healthcare services resulting from pandemic response priorities contributed to decreased medical-seeking behavior for non-COVID conditions and significant underreporting of other diseases and health condition²⁰.

Conversely, 2022-2023 saw a significant resurgence in self-inflicted injury cases, predominantly linked to the psychological sequelae of the COVID-19 pandemic. This trend emerged within a context where three key factors exacerbated mental health deterioration, particularly among vulnerable populations, such as those with pre-existing mental health disorders and grieving individuals: reduced mental healthcare access, pandemic-related uncertainty and prolonged social isolation^{19,21,22}.

Sex-based distribution analysis revealed that Pernambuco mirrors national trends, with women presenting higher rates of reported cases, accounting for 71.3% of the reported cases in SINAN, while men represented 56.9% of hospitalizations recorded in SIH/SUS. Global data consistently demonstrates gender disparities in self-harm behaviors. Women show higher prevalence of suicide planning, suicidal ideation, and suicide attempts, while men exhibit greater suicide mortality risk¹⁹. This gender disparity may be attributed to multiple intersecting factors, such as: excessive burden of tasks and responsibilities associated with the female gender; social inequalities that result in economic and financial disadvantages for women; urban, domestic and sexual violence, which often lead to the development of mental disorders and various types of psychological suffering^{20,23}.

Age distribution analysis revealed consistent patterns across local and national data, with the highest incidence rates among young adults aged 20-29 years (SINAN: 30.5%; SIH/SUS: 26.2%). This epidemiological pattern aligns with findings from national studies in Brazil²⁴. Multiple risk factors are associated with self-harm and suicidal behaviors in this age group, including impulsivity, feelings of anguish, sadness, and despair^{23,24}. Furthermore, globalization has profoundly influenced psychosocial dynamics, particularly among young adults, exacerbating vulnerability to self-injurious behaviors. This trend is partially mediated by increased social media effects²⁵.

Race/ethnicity data showed a predominance of mixed-race (*Pardo*) individuals in both systems (SINAN: 72.5%; SIH/SUS: 66.3%). This variable may not be directly associated with suicide rates; however, social inequality factors may influence these indices, depending on the specific socioeconomic conditions of each Brazilian region²⁶.

Regarding spatial representativeness, the distribution patterns across municipalities differed between the two systems, constituting an unsatisfactory parameter. However, in both systems, the five municipalities with the highest case records predominantly comprise urban populations, according to data from the Pernambuco State Database (BDE)²⁷. This finding corroborates the study by Silva and Marcolan²³, which reports a higher frequency of self-inflicted violence occurrences in urban areas (79.11%).

The overall data quality assessment was classified as moderate. According to Oliveira *et al.*²⁸, a crucial factor contributing to poor data quality is professionals' lack of engagement in complying with mandatory reporting requirements.

CONCLUSION

Self-harm notifications play a crucial role in understanding the profiles and behaviors of individuals engaging in self-injury, providing essential data for developing protection and intervention strategies. However, the surveillance system evaluation revealed moderate quality in terms of consistency and completeness, in addition to low representativeness. This finding highlights the urgent need for investments to improve data quality, since properly structured information is essential to support effective public policies for prevention, control, and surveillance of this type of violence.

As an important limitation, it should be noted that SIH/SUS primarily records severe cases requiring hospitalization, whereas SINAN includes less severe cases as well. This makes SIH/SUS less representative of the totality of reported health events.

REFERENCES

1. Silva AP, Lima DCR, Oliveira SLS, Lago APSP, Alves JC. Análise temporal da mortalidade por suicídio no Nordeste. *Rev Cient Esc Saúde Pública Ceará*. 2024;18:e2042. Disponível em: <https://doi.org/10.54620/cadesp.v18i1.2042>. Acesso em: 16 mar. 2025.
2. Lima PFL, Silva MTA, Lima NLLF, Lima ETP, Silva DTA, Maia LTS. Análise da mortalidade por suicídio no estado de Pernambuco. *Rev Ciênc Plural*. 2022;8(3):e26478. Disponível em: <https://doi.org/10.21680/2446-7286.2022v8n3ID26478>. Acesso em: 20 ago. 2024.
3. Ministério da Saúde (BR). Secretaria de Vigilância em Saúde. Departamento de Vigilância de Doenças e Agravos Não Transmissíveis e Promoção da Saúde. *Saúde Brasil 2014: uma análise da situação de saúde e das causas externas*. Brasília, DF: Ministério da Saúde; 2015.
4. Santos EGO, Barbosa IR. Conglomerados espaciais da mortalidade por suicídio no Nordeste do Brasil e sua relação com indicadores socioeconômicos. *Cad Saúde Colet*. 2017;25(3):371–9. Disponível em: <https://doi.org/10.1590/1414-462X201700030015>. Acesso em: 2 set. 2024.
5. Melo GBT, Alves SV, Lima MLC. Mortalidade por causas externas em Pernambuco, 2001–2003 e 2011–2013. *Rev Bras Enferm*. 2015;68(5):855–61. Disponível em: <https://doi.org/10.1590/0034-7167.2015680513i>. Acesso em: 2 set. 2024.
6. Cipriano A, Stefania C, Cotrufo P. Nonsuicidal self-injury: a systematic review. *Front Psychol*. 2017;8:1946. Disponível em: <https://doi.org/10.3389/fpsyg.2017.01946>. Acesso em: 2 set. 2024.
7. Liu RT, Scopelliti KM, Pittman SK, Zamora AS. Childhood maltreatment and non-suicidal self-injury: a systematic review and meta-analysis. *Lancet Psychiatry*. 2018;5(1):51–64. Disponível em: [https://doi.org/10.1016/S2215-0366\(17\)30469-8](https://doi.org/10.1016/S2215-0366(17)30469-8). Acesso em: 2 set. 2024.
8. Fonseca ACS, Marin AH. Violência autoprovocada no Brasil: caracterização dos casos notificados entre 2009 e 2021. *Rev Psicol Saúde*. 2022;14(3):131–46. Disponível em: <https://doi.org/10.20435/pssa.v14i3.2005>. Acesso em: 30 ago. 2024.
9. Santos SA, Legay LF, Aguiar FP, Lovisi GM, Abelha L, Oliveira SP. Tentativas e suicídios por intoxicação exógena no Rio de Janeiro, Brasil: análise das informações através do linkage probabilístico. *Cad Saúde Pública*. 2014;30(5):1057–66. Disponível em: <https://doi.org/10.1590/0102-311X00054213>. Acesso em: 30 ago. 2024.
10. Mota E, Almeida MF, Viacava F. O dado epidemiológico: estrutura, fontes, propriedades e instrumentos. In: Almeida Filho N, Barreto ML, orgs. *Epidemiologia e saúde: fundamentos, métodos, aplicações*. Rio de Janeiro: Guanabara Koogan; 2011. p. 85–94.
11. Abath MB, Lima MLLT, Lima PS, Silva MCM, Lima MLC. Avaliação da completude, da consistência e da duplicidade de registros de violências do Sinan, Recife, Pernambuco, 2009–2012. *Epidemiol Serv Saúde*. 2014;23(1):131–42. Disponível em: <http://dx.doi.org/10.5123/S1679-49742014000100013>. Acesso em: 30 ago. 2024.
12. Ministério da Saúde (BR). *Guia de vigilância em saúde: volume 3 [recurso eletrônico]*. 6ª ed. Brasília, DF: Ministério da Saúde; 2023.

13. Ministério da Saúde (BR). Vigilância de violências e acidentes, 2006 e 2007. Brasília, DF: Ministério da Saúde; 2009.
14. Ministério da Saúde (BR). Vigilância de violências e acidentes, 2008 e 2009. Brasília, DF: Ministério da Saúde; 2010.
15. German RR, Lee LM, Horan JM, Milstein RL, Pertowski CA, Waller MN, et al. Updated guidelines for evaluating public health surveillance systems: recommendations from the Guidelines Working Group. *MMWR Recomm Rep*. 2001 Jul 27;50(RR-13):1–35. Disponível em: <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5013a1.htm>. Acesso em: 16 out. 2024.
16. Souza VMM, Brant JL, Arsky MLS, Araujo WN. Avaliação do sistema nacional de vigilância epidemiológica da leptospirose, Brasil, 2007. *Cad Saúde Colet*. 2010;18(1):95–105.
17. Pacheco CCA. Avaliação da representatividade, valor preditivo positivo, completitude e oportunidade do sistema de vigilância da dengue no Brasil, 2018 a 2020 [trabalho de conclusão de curso]. Brasília, DF: [s.n.]; 2021. 37 p.
18. Plener PL, Allroggen M, Kapusta N, Brahler E, Fegert J, Groschwitz R. The prevalence of nonsuicidal self-injury (NSSI) in a representative sample of the German population. *BMC Psychiatry*. 2016;16:353. Disponível em: <http://dx.doi.org/10.1186/s12888-016-1060-x>. Acesso em: 2 jan. 2025.
19. Ministério da Saúde (BR). Secretaria de Vigilância em Saúde e Ambiente. Panorama dos suicídios e lesões autoprovocadas no Brasil de 2010 a 2021. *Bol Epidemiol*. 2024;55(4). Disponível em: <https://www.gov.br/saude/pt-br/centrais-de-conteudo/publicacoes/boletins/epidemiologicos/edicoes/2024/boletim-epidemiologico-volume-55-no-04.pdf>. Acesso em: 3 jan. 2025.
20. Secretaria de Estado da Saúde do Piauí (BR). Perfil epidemiológico das lesões autoprovocadas no Estado do Piauí entre 2019 e 2021. Teresina: Secretaria de Saúde do Estado do Piauí; 2021. Disponível em: https://www.saude.pi.gov.br/uploads/warning_document/file/816/Boletim_Obito__tentativas_de_suicidio_Setembro_Amarelo_2021__1__1_.pdf. Acesso em: 3 jan. 2025.
21. Gunnell D, Appleby L, Arensman E, Hawton K, John A, Kapur N, et al. Suicide risk and prevention during the COVID-19 pandemic. *Lancet Psychiatry*. 2020;7(6):468–71. Disponível em: [https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366\(20\)30171-1/fulltext](https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366(20)30171-1/fulltext). Acesso em: 3 jan. 2025.
22. Mertens G, Gerritsen L, Duijndam S, Saleminck E, Engelhard IM. Fear of the coronavirus (COVID-19): predictors in an online study conducted in March 2020. *J Anxiety Disord*. 2020;74:102258. Disponível em: <https://www.sciencedirect.com/science/article/pii/S0887618520300724>. Acesso em: 3 jan. 2025.
23. Silva DA, Marcolan JF. Tentativa de suicídio no Brasil: análise epidemiológica. *Medicina (Ribeirão Preto)*. 2021;54(4). Disponível em: <https://doi.org/10.11606/issn.2176-7262.rmrp.2021.181793>. Acesso em: 3 jan. 2025.
24. Ministério da Saúde (BR). Secretaria de Vigilância em Saúde. Mortalidade por suicídio e notificações de lesões autoprovocadas no Brasil. *Bol Epidemiol (Rio J)*. 2021;52(33).
25. Almeida AA, Santos FS, Oliveira CM, Rodrigues MN, Silva RB, et al. Perfil das lesões autoprovocadas em adolescentes de 2018 a 2022 em Mato Grosso [trabalho de conclusão de curso]. Várzea Grande (MT): Centro Universitário UNIVAG; 2023. Disponível em: <https://www.repositoriodigital.univag.com.br/index.php/enf/article/view/1868>. Acesso em: 3 jan. 2025.
26. Silva AJC, Medeiros EB, Basílio ICS, Barbosa JKA, Silva RE. Violência autoprovocada em um estado do nordeste brasileiro: série histórica. *Rev Nursing*. 2021;24(274):5347–56. Disponível em: <https://doi.org/10.36489/nursing.2021v24i274p5347-5356>. Acesso em: 3 jan. 2025.
27. Pernambuco (BR). Base de dados do estado de Pernambuco. Disponível em: http://www.bde.pe.gov.br/EstruturacaoGeral/conteudo_site2.aspx. Acesso em: 2 jan. 2025.
28. Oliveira MEP, Soares MRAL, Costa MCN, Mota ELA. Avaliação da completitude dos registros de febre tifóide notificados no Sinan pela Bahia. *Epidemiol Serv Saúde*. 2009;18(3):2–26. Disponível em: <http://dx.doi.org/10.5123/S1679-49742009000300004>. Acesso em: 2 jan. 2025.