Appendix

Linkage process

The linkage process was based on a set of attributes: mother's name and age, date of birth, sex and place of residence (municipality). It was not possible to use the Live Birth Certificate number as a linking attribute, as it is only available for infant deaths and has a very low completion rate.[18,23] The relationship was performed by similarity matching, using the algorithm Center for Data and Knowledge Integration for Health-Record Linkage (CIDACS-RL),[23] an open source linkage algorithm from CIDACS that generates a similarity score based on multiple identifiers. The process was conducted in the secure environment of the CIDACS data center, in strict data protection structure following ethical and legal standards.[24] CIDACS-RL applies a combination of indexing and searching algorithms. Indexing searches for the most similar records in the indexed SIM for each SINASC record and submits them to a paired comparison step. Candidate linkage records are ranked according to their scores and the highest score comparison pair is retained. For this dataset, a sample of 2000 pairs, stratified into three categories of linkage scores (high score, greater than 0.95; intermediate score, values between 0.90 and 0.95; and low score, less than 0. .90) was manually reviewed to assess link quality. In this validation process, the overall sensitivity and specificity was greater than 90% in all years, with little variation (for example, 94.0% in 2015; 98.1% in 2017, and 90.4% in 2019).

Figure 1. Linkage flowchart

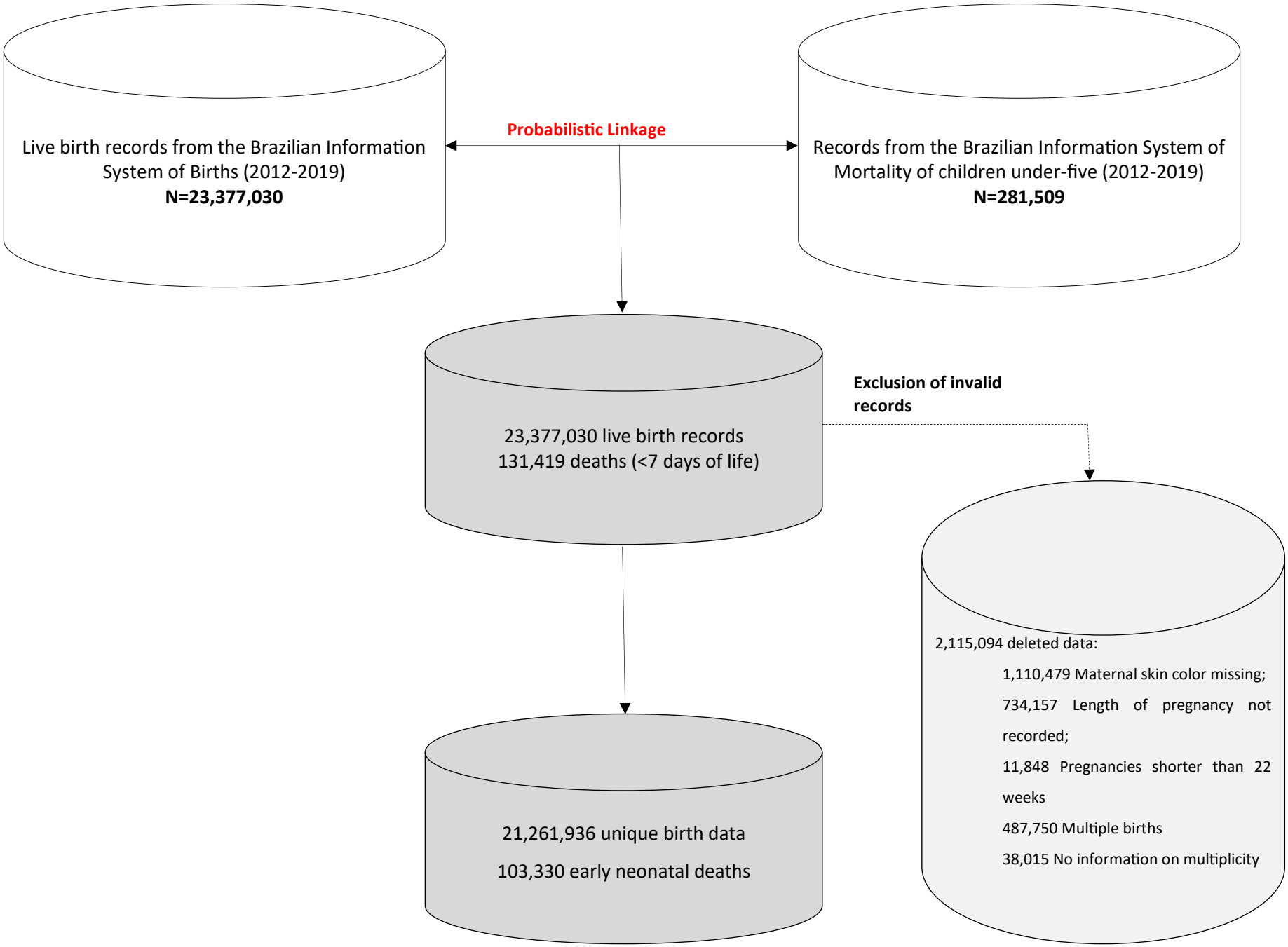

Table 1. **Exact values for sensitivity and specificity about linkage SIM X SINASC**

Year	Cutoff	Sensitivity (%)	Specificity (%)
2012	0.974	92.1	91.6
2013	0.974	93.3	94.3
2014	0.974	92.9	95.5
2015	0.973	94.0	94.0
2016	0.951	94.7	96.5
2017	0.950	95.0	98.1
2018	0.939	92.8	93.3
2019	0.956	92.6	90.4

	Manual Review	
	True	**False**
≥ Cutoff	a	b
> Cutoff	c	d
	a+c	b+d

Sensitivity = a / (a+c)

Specificity = d / (b+d)

Figure 2. ROC curve linkage SIM (2019-2019) x SINASC V5

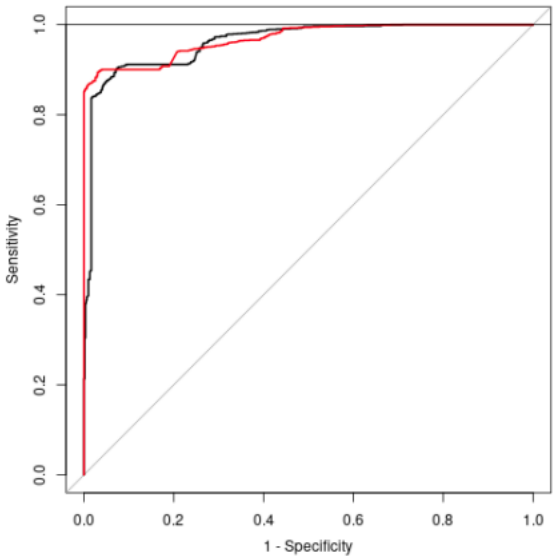

Table 2. Observational Routinely-Collected health Data (RECORD) guideline

The RECORD statement – checklist of items, extended from the STROBE statement, that should be reported in observational studies using routinely collected health data.

	Item No.	STROBE items	Location in manuscript where items are reported	RECORD items	Location in manuscript where items are reported
Title and abstract					
	1	(a) Indicate the study's design with a commonly used term in the title or the abstract (b) Provide in the abstract an informative and balanced summary of what was done and what was found	Abstract	RECORD 1.1: The type of data used should be specified in the title or abstract. When possible, the name of the databases used should be included. RECORD 1.2: If applicable, the geographic region and timeframe within which the study took place should be reported in the title or abstract. RECORD 1.3: If linkage between databases was conducted for the study, this should be clearly stated in the title or abstract.	Abstract
Introduction					
Background rationale	2	Explain the scientific background and rationale for the investigation being reported	Introduction: 1st to 4th paragraphs		Introduction: 1st to 4th paragraphs
Objectives	3	State specific objectives, including any prespecified hypotheses	Introduction: last paragraph		Introduction: last paragraph
Methods					
Study Design	4	Present key elements of study design early in the paper	Methods section: 1st paragraph - **Study design, data source, population and linkage process** (page 6)		Methods section: 1st paragraph - **Study design, data source, population and linkage process** (page 6)
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment,	Methods section: **Study design, data source, population**		Methods section: **Study design, data source,**

		exposure, follow-up, and data collection	**and linkage process** (page 6) and Expousure definitions (pages 6 and 7)		**population and linkage process** (page 6) and Expousure definitions (pages 6 and 7)
Participants	6	*(a) Cohort study* - Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up *Case-control study* - Give the eligibility criteria, and the sources and methods of case ascertainment and control selection. Give the rationale for the choice of cases and controls *Cross-sectional study* - Give the eligibility criteria, and the sources and methods of selection of participants *(b) Cohort study* - For matched studies, give matching criteria and number of exposed and unexposed *Case-control study* - For matched studies, give matching criteria and the number of controls per case	Methods section: **Study design, data source, population and linkage process** (methods of selection of participants) (page 6), Data linkage (methods of selection of participants) (page 6)	RECORD 6.1: The methods of study population selection (such as codes or algorithms used to identify subjects) should be listed in detail. If this is not possible, an explanation should be provided. RECORD 6.2: Any validation studies of the codes or algorithms used to select the population should be referenced. If validation was conducted for this study and not published elsewhere, detailed methods and results should be provided. RECORD 6.3: If the study involved linkage of databases, consider use of a flow diagram or other graphical display to demonstrate the data linkage process, including the number of individuals with linked data at each stage.	6.1: Methods section: **Study design, data source, population and linkage process** (page 6), Data linkage (page 6) 6.2: Methods section: Data linkage (CIDACS-RL tool) (page 7) 6.3: Methods section: Study design and population; Figure 2 (Results section)
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable.	Methods section: pages 6-7	RECORD 7.1: A complete list of codes and algorithms used to classify exposures, outcomes, confounders, and effect modifiers should be provided. If these cannot be reported, an explanation should be provided.	All definitions can be found in the Methods section: pages 6-7
Data sources/ measurement	8	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	Methods section: **Study design, data source, population and linkage**		Methods section: **Study design, data source, population**

			process (pages 6), **Exposures definitions** (page 6 and 7), **Outcomes definitions** (page 7), Statistical analysis (page 8)		**and linkage process** (pages 6), Main exposure variable (page 5 and 6), **Outcomes definitions** (page 7), Statistical analysis (page 8)
Bias	9	Describe any efforts to address potential sources of bias	**Statistical Analysis** (page 8)		**Statistical Analysis** (page 8)
Study size	10	Explain how the study size was arrived at	Figure 2 (Results section)		Figure 2 (Results section)
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen, and why	Table 1 (Results section) Information regarding these variables can be found throughout the methods: (pages 6, 7 and 8)		Table 1 (Results section) Information regarding these variables can be found throughout the methods: (pages 6, 7 and 8)
Statistical methods	12	(a) Describe all statistical methods, including those used to control for confounding (b) Describe any methods used to examine subgroups and interactions (c) Explain how missing data were addressed (d) *Cohort study* - If applicable, explain how loss to follow-up was addressed *Case-control study* - If applicable, explain how	Methods section: **Statistical Analysis** (page 8)		Methods section: **Statistical Analysis** (page 8)

		matching of cases and controls was addressed *Cross-sectional study* - If applicable, describe analytical methods taking account of sampling strategy (e) Describe any sensitivity analyses			
Data access and cleaning methods		..	Methods section: **Study design, data source, population and linkage process** (pages 6), **Exposures definitions** (page 6 and 7), **Outcomes definitions** (page 7), **Statistical Analysis** (page 8) Results section: Figure 2	RECORD 12.1: Authors should describe the extent to which the investigators had access to the database population used to create the study population. RECORD 12.2: Authors should provide information on the data cleaning methods used in the study.	RECORD 12.1: Methods section: **Study design, data source, population and linkage process** (pages 6), **Exposures definitions** (page 6 and 7), **Outcomes definitions** (page 7), **Statistical Analysis** (page 8) RECORD 12.2: Methods section: **Study design, data source, population and linkage process** (page 6) Results section: Figure 2

Linkage		..		RECORD 12.3: State whether the study included person-level, institutional-level, or other data linkage across two or more databases. The methods of linkage and methods of linkage quality evaluation should be provided.	Methods section: **Study design, data source, population and linkage process** (page 6), **Statistical Analysis** (page 8)
Results					
Participants	13	(a) Report the numbers of individuals at each stage of the study (*e.g.*, numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed) (b) Give reasons for non-participation at each stage. (c) Consider use of a flow diagram	Results section: 1st paragraph; Figure 2	RECORD 13.1: Describe in detail the selection of the persons included in the study (*i.e.,* study population selection) including filtering based on data quality, data availability and linkage. The selection of included persons can be described in the text and/or by means of the study flow diagram.	Results section: 1st paragraph; Figure 2
Descriptive data	14	(a) Give characteristics of study participants (*e.g.*, demographic, clinical, social) and information on exposures and potential confounders (b) Indicate the number of participants with missing data for each variable of interest (c) *Cohort study* - summarise follow-up time (*e.g.*, average and total amount)	Table 1		Table 1
Outcome data	15	*Cohort study* - Report numbers of outcome events or summary measures over time *Case-control study* - Report numbers in each exposure category, or	Results section: 1st and 2nd paragraphs; Table 1; and 3th to 6th in table 2		Results section: 1st and 2nd paragraphs; Table 1; and 3th to 6th in table 2

		summary measures of exposure *Cross-sectional study* - Report numbers of outcome events or summary measures			
Main results	16	(a) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (e.g., 95% confidence interval). Make clear which confounders were adjusted for and why they were included (b) Report category boundaries when continuous variables were categorized (c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	Results section: 3th to 7th, Tables 2 and 3		Results section: 3th to 7th, Tables 2 and 3
Other analyses	17	Report other analyses done—e.g., analyses of subgroups and interactions, and sensitivity analyses	Results section (last paragraph) Supplementary Material: Tables 1, 2, 3 and 4 and figure 3		Results section (last paragraph) Supplementary Material: Tables 1, 2, 3 and 4 and figure 3
Discussion					
Key results	18	Summarise key results with reference to study objectives	Discussion section (1st paragraph)		Discussion section (1st paragraph)
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	Discussion section (8th paragraph)	RECORD 19.1: Discuss the implications of using data that were not created or collected to answer the specific research question(s). Include discussion of misclassification bias, unmeasured confounding, missing data, and changing eligibility over time, as they pertain to the study being reported.	Discussion section (8th paragraph)
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	Discussion section: page 11 to 14		Discussion section: page 11 to 14

Generalisability	21	Discuss the generalisability (external validity) of the study results	Discussion section: page 13 (8th paragraph)		Discussion section: page 13 (8th paragraph)
Other Information					
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	Funding (pages 2)		Funding (page 2)
Accessibility of protocol, raw data, and programming code		..	Methods section (pages 6-8)	RECORD 22.1: Authors should provide information on how to access any supplemental information such as the study protocol, raw data, or programming code.	Methods section (pages 6-8)

References

1. Paixao ES, Ferreira AJ, Pescarini JM, et al. Maternal and congenital syphilis attributable to ethnoracial inequalities: a national record-linkage longitudinal study of 15 million births in Brazil. The Lancet Global Health 2023; 11(11): e1734-e42.

2. Rebouças P, Goes E, Pescarini J, et al. Ethnoracial inequalities and child mortality in Brazil: a nationwide longitudinal study of 19 million newborn babies. The Lancet Global Health 2022; 10(10): e1453-e62.

3. Lett E, Asabor E, Beltrán S, Cannon AM, Arah OA. Conceptualizing, contextualizing, and operationalizing race in quantitative health sciences research. The Annals of Family Medicine 2022; 20(2): 157-63.

4. Osorio RG. A desigualdade racial no Brasil nas três últimas décadas: Texto para Discussão, 2021.

5. Cobo B, Cruz C, Dick PC. Desigualdades de gênero e raciais no acesso e uso dos serviços de atenção primária à saúde no Brasil. Ciência & Saúde Coletiva 2021; 26: 4021-32.

6. Leal MdC, Gama SGNd, Cunha CBd. Desigualdades raciais, sociodemográficas e na assistência ao pré-natal e ao parto, 1999-2001. Revista de saude publica 2005; 39: 100-7.

7. Tomasiello DB, Bazzo JP, Parga JP, Servo LM, Pereira RHM. Desigualdades raciais e de renda no acesso à saúde nas cidades brasileiras. 2023.

8. Batista LE, Rattner D, Kalckmann S, Oliveira MCGd. Humanização na atenção à saúde e as desigualdades raciais: uma proposta de intervenção. Saúde e Sociedade 2016; 25: 689-702.

9. Goes EF, Nascimento ERd. Mulheres negras e brancas e os níveis de acesso aos serviços preventivos de saúde: uma análise sobre as desigualdades. Saúde em Debate 2013; 37: 571-9.

10. Leal MdC, Gama SGNd, Pereira APE, Pacheco VE, Carmo CNd, Santos RV. A cor da dor: iniquidades raciais na atenção pré-natal e ao parto no Brasil. Cadernos de Saúde Pública 2017; 33.

11. Howe CJ, Bailey ZD, Raifman JR, Jackson JW. Recommendations for using causal diagrams to study racial health disparities. American journal of epidemiology 2022; 191(12): 1981-9.

12. Ding X, Liang M, Wu Y, et al. The impact of prenatal stressful life events on adverse birth outcomes: A systematic review and meta-analysis. Journal of Affective Disorders 2021; 287: 406-16.

13. Graham JR, West LM, Martinez J, Roemer L. The mediating role of internalized racism in the relationship between racist experiences and anxiety symptoms in a Black American sample. Cultural Diversity and Ethnic Minority Psychology 2016; 22(3): 369.

14. Hassen N, Lofters A, Michael S, Mall A, Pinto AD, Rackal J. Implementing anti-racism interventions in healthcare settings: a scoping review. International journal of environmental research and public health 2021; 18(6): 2993.

15. Lawn JE, Ohuma EO, Bradley E, et al. Small babies, big risks: global estimates of prevalence and mortality for vulnerable newborns to accelerate change and improve counting. The Lancet 2023; 401(10389): 1707-19.

16. Paixao ES, Blencowe H, Falcao IR, et al. Risk of mortality for small newborns in Brazil, 2011-2018: a national birth cohort study of 17.6 million records from routine register-based linked data. The Lancet Regional Health–Americas 2021; 3.

17. Suárez-Idueta L, Yargawa J, Blencowe H, et al. Vulnerable newborn types: Analysis of population-based registries for 165 million births in 23 countries, 2000–2021. BJOG: An International Journal of Obstetrics & Gynaecology 2023.

18. Victora CG, Adair L, Fall C, et al. Maternal and child undernutrition: consequences for adult health and human capital. The lancet 2008; 371(9609): 340-57.

19. Mwaniki MK, Atieno M, Lawn JE, Newton CR. Long-term neurodevelopmental outcomes after intrauterine and neonatal insults: a systematic review. The Lancet 2012; 379(9814): 445-52.

20. Saigal S, Doyle LW. An overview of mortality and sequelae of preterm birth from infancy to adulthood. The Lancet 2008; 371(9608): 261-9.

21. Teune MJ, Bakhuizen S, Bannerman CG, et al. A systematic review of severe morbidity in infants born late preterm. American journal of obstetrics and gynecology 2011; 205(4): 374. e1-. e9.

22. Fonseca J, Silva A, Rocha P, et al. Racial inequality in perinatal outcomes in two Brazilian birth cohorts. Brazilian Journal of Medical and Biological Research 2021; 54.

23. Silveira MF, Victora CG, Barros AJ, Santos IS, Matijasevich A, Barros FC. Determinants of preterm birth: Pelotas, Rio Grande do Sul state, Brazil, 2004 birth cohort. Cadernos de saude publica 2010; 26: 185-94.

24. Silveira MF, Victora CG, Horta BL, da Silva BG, Matijasevich A, Barros FC. Low birthweight and preterm birth: trends and inequalities in four population-based birth cohorts in Pelotas, Brazil, 1982–2015. International Journal of Epidemiology 2019; 48(Supplement_1): i46-i53.

25. UN. Transforming our world: the 2030 Agenda for Sustainable Development. United Nations: New York, NY, USA 2015.

26. Szwarcwald CL, Leal MdC, Esteves-Pereira AP, et al. Avaliação das informações do Sistema de Informações sobre Nascidos Vivos (SINASC), Brasil. Cadernos de Saúde Pública 2019; 35: e00214918.

27. Maia LTdS, Souza WVd, Mendes AdCG, Silva AGSd. Uso do linkage para a melhoria da completude do SIM e do Sinasc nas capitais brasileiras. Revista de Saúde Pública 2017; 51.

28. Lino RRG. Série temporal da completitude das estatísticas vitais no período neonatal, estado do Rio de Janeiro, 1999 a 2014. 2018.

29. Marques LJP, Pimentel DdR, Oliveira CMd, Vilela MBR, Frias PG, Bonfim CVd. Concordância da causa básica e da evitabilidade dos óbitos infantis antes e após a investigação no Recife, Pernambuco, 2014. Epidemiologia e Serviços de Saúde 2018; 27: e20170557.

30. Morais RMd, Costa AL. An evaluation of the Brazilian mortality information system. Saúde em Debate 2017; 41: 101-17.

31. Barbosa GC, Ali MS, Araujo B, et al. CIDACS-RL: a novel indexing search and scoring-based record linkage system for huge datasets with high accuracy and scalability. BMC medical informatics and decision making 2020; 20: 1-13.

32. Barreto ML, Ichihara M, Almeida BdA, et al. The centre for data and knowledge integration for health (CIDACS): linking health and social data in Brazil. International journal of population data science 2019; 4(2).

33. Smith LK, Manktelow BN, Draper ES, Boyle EM, Johnson SJ, Field DJ. Trends in the incidence and mortality of multiple births by socioeconomic deprivation and maternal age in England: population-based cohort study. BMJ open 2014; 4(4): e004514.

34. Woodhouse C, Lopez Camelo J, Wehby GL. A comparative analysis of prenatal care and fetal growth in eight South American countries. PLoS One 2014; 9(3): e91292.

35. Brazil GCoEI, Analyses–CGIAE DoHS, Health. . Md: Consolidação Sistema de Informações Sobre Nascidos Vivos: 2011. 2013.

36. IBGE. Censo demográfico 2022 : identificação étnico-racial da população, por sexo e idade : resultados do universo. . Rio de Janeiro, 2023.

37. Petruccelli JL, Saboia AL. Características étnico-raciais da população. Classificações e identidades Rio de Janeiro: Instituto Brasileiro de Geografia e Estatística 2013.

38. Adkins-Jackson PB, Chantarat T, Bailey ZD, Ponce NA. Measuring structural racism: a guide for epidemiologists and other health researchers. American journal of epidemiology 2022; 191(4): 539-47.

39. Mays VM, Ponce NA, Washington DL, Cochran SD. Classification of race and ethnicity: implications for public health. Annual review of public health 2003; 24(1): 83-110.

40. Ecker JL, Kaimal A, Mercer BM, et al. Periviable birth. Obstetrical & Gynecological Survey 2016; 71(3): 137-9.

41. Patel RM, Rysavy MA, Bell EF, Tyson JE. Survival of infants born at periviable gestational ages. Clinics in perinatology 2017; 44(2): 287-303.

42. Villar J, Giuliani F, Fenton TR, Ohuma EO, Ismail LC, Kennedy SH. INTERGROWTH-21st very preterm size at birth reference charts. The Lancet 2016; 387(10021): 844-5.

43. Villar J, Ismail LC, Victora CG, et al. International standards for newborn weight, length, and head circumference by gestational age and sex: the Newborn Cross-Sectional Study of the INTERGROWTH-21st Project. The Lancet 2014; 384(9946): 857-68.

44. Organization WH. ICD-10. International Statistical Classification of Diseases and Related Health Problems: Tenth Revision 1992, Volume 1= CIM-10. Classification statistique internationale des maladies et des problèmes de santé connexes: Dixième Révision 1992, Volume 1. 1992.

45. Mansournia MA, Altman DG. Population attributable fraction. Bmj 2018; 360.

46. Newson RB. Attributable and unattributable risks and fractions and other scenario comparisons. The Stata Journal 2013; 13(4): 672-98.

47. Hone T, Rasella D, Barreto ML, Majeed A, Millett C. Association between expansion of primary healthcare and racial inequalities in mortality amenable to primary care in Brazil: a national longitudinal analysis. PLoS medicine 2017; 14(5): e1002306.

48. Ramos D, da Silva NB, Ichihara MY, et al. Conditional cash transfer program and child mortality: A cross-sectional analysis nested within the 100 Million Brazilian Cohort. PLoS medicine 2021; 18(9): e1003509.

49. Barros FC, Victora CG, Horta BL. Ethnicity and infant health in Southern Brazil. A birth cohort study. International Journal of Epidemiology 2001; 30(5): 1001-8.

50. Nyarko KA, Lopez-Camelo J, Castilla EE, Wehby GL. Explaining racial disparities in infant health in Brazil. American Journal of Public Health 2013; 103(9): 1675-84.

51. Silva L, Silva R, Silva A, Bettiol H, Barbieri MA. Racial inequalities and perinatal health in the southeast region of Brazil. Brazilian Journal of Medical and Biological Research 2007; 40: 1187-94.

52. Wehby GL, Gili JA, Pawluk M, Castilla EE, López-Camelo JS. Disparities in birth weight and gestational age by ethnic ancestry in South American countries. International journal of public health 2015; 60: 343-51.

53. Barreto CTG, Tavares FG, Theme-Filha M, Farias YN, Pantoja LdN, Cardoso AM. Low birthweight, prematurity, and intrauterine growth restriction: results from the baseline data of the first indigenous birth cohort in Brazil (Guarani Birth Cohort). BMC Pregnancy and Childbirth 2020; 20(1): 1-19.

54. Cardoso AM, Horta BL, Coimbra Junior CEA, Follér M-L, Souza MCd. Inquérito nacional de saúde e nutrição dos povos indígenas. 2009.

55. Anderson I, Robson B, Connolly M, et al. Indigenous and tribal peoples' health (The Lancet–Lowitja Institute Global Collaboration): a population study. The Lancet 2016; 388(10040): 131-57.

56. Goldenberg RL, Culhane JF, Iams JD, Romero R. Epidemiology and causes of preterm birth. The lancet 2008; 371(9606): 75-84.

57. Leal MdC, Esteves-Pereira AP, Nakamura-Pereira M, et al. Prevalence and risk factors related to preterm birth in Brazil. Reproductive health 2016; 13: 163-74.

58. Leal MdC, Esteves-Pereira AP, Viellas EF, Domingues RMSM, Gama SGNd. Prenatal care in the Brazilian public health services. Revista de Saúde Pública 2020; 54: 08.

59. Beck AF, Edwards EM, Horbar JD, Howell EA, McCormick MC, Pursley DM. The color of health: how racism, segregation, and inequality affect the health and well-being of preterm infants and their families. Pediatric research 2020; 87(2): 227-34.

60. Dominguez TP. Race, racism, and racial disparities in adverse birth outcomes. Clinical obstetrics and gynecology 2008; 51(2): 360-70.

61. Lu MC, Halfon N. Racial and ethnic disparities in birth outcomes: a life-course perspective. Maternal and child health journal 2003; 7: 13-30.

62. Byrd DR, Katcher ML, Peppard P, Durkin M, Remington PL. Infant mortality: Explaining black/white disparities in Wisconsin. Maternal and child health journal 2007; 11: 319-26.

63. Kitsantas P, Gaffney KF. Racial/ethnic disparities in infant mortality. 2010.

64. Lorch SA, Enlow E. The role of social determinants in explaining racial/ethnic disparities in perinatal outcomes. Pediatric research 2016; 79(1): 141-7.

65. Howell EA. Racial disparities in infant mortality: a quality of care perspective. Mount Sinai Journal of Medicine: A Journal of Translational and Personalized Medicine: A Journal of Translational and Personalized Medicine 2008; 75(1): 31-5.

66. Howell EA, Janevic T, Hebert PL, Egorova NN, Balbierz A, Zeitlin J. Differences in morbidity and mortality rates in black, white, and Hispanic very preterm infants among New York City hospitals. JAMA pediatrics 2018; 172(3): 269-77.

67. Howell EA, Hebert P, Chatterjee S, Kleinman LC, Chassin MR. Black/white differences in very low birth weight neonatal mortality rates among New York City hospitals. Pediatrics 2008; 121(3): e407-e15.

68. Bailey ZD, Krieger N, Agénor M, Graves J, Linos N, Bassett MT. Structural racism and health inequities in the USA: evidence and interventions. The lancet 2017; 389(10077): 1453-63.

69. Milanez F, Sá L, Krenak A, et al. Existência e diferença: o racismo contra os povos indígenas. Revista Direito e Práxis 2019; 10(03): 2161-81.

70. Phelan JC, Link BG. Is racism a fundamental cause of inequalities in health? Annual Review of Sociology 2015; 41: 311-30.

71. Assari S. Social epidemiology of perceived discrimination in the United States: Role of race, educational attainment, and income. Epidemiology and Health System Journal 2020; 7(3): 136-41.

72. Assari S, Zare H. Beyond access, proximity to care, and healthcare use: Sustained racial disparities in perinatal outcomes due to marginalization-related diminished returns and racism. Journal of pediatric nursing 2022; 63: e161-e3.

73. Woods-Giscombe C, Robinson MN, Carthon D, Devane-Johnson S, Corbie-Smith G. Superwoman schema, stigma, spirituality, and culturally sensitive providers: Factors influencing African American women's use of mental health services. Journal of best practices in health professions diversity: research, education and policy 2016; 9(1): 1124.

74. Lee HC, Lyndon A, Blumenfeld YJ, Dudley RA, Gould JB. Antenatal steroid administration for premature infants in California. Obstetrics and gynecology 2011; 117(3): 603.

75. Sigurdson K, Morton C, Mitchell B, Profit J. Disparities in NICU quality of care: a qualitative study of family and clinician accounts. Journal of Perinatology 2018; 38(5): 600-7.

76. Jackson FM, Phillips MT, Hogue CJR, Curry-Owens TY. Examining the burdens of gendered racism: Implications for pregnancy outcomes among college-educated African American women. Maternal and Child Health Journal 2001; 5: 95-107.

77. Wadhwa PD, Culhane JF, Rauh V, Barve SS. Stress and preterm birth: neuroendocrine, immune/inflammatory, and vascular mechanisms. Maternal and child health journal 2001; 5: 119-25.

78. Gee GC, Walsemann KM, Brondolo E. A life course perspective on how racism may be related to health inequities. American journal of public health 2012; 102(5): 967-74.

79. Jaccoud L. A construção de uma política de promoção da igualdade racial: uma análise dos últimos 20 anos. A Construção de uma política de promoção da igualdade racial: uma análise dos últimos 20 anos; 2009: 233-.

80. Theodoro M. Relações raciais, racismo e políticas públicas no Brasil contemporâneo. Revista de Estudos e Pesquisas sobre as Américas 2014; 8(1): 205-19.

81. Estatística IBdGe, de Oliveira ATR. Sistemas de estatísticas vitais no Brasil: avanços, perspectivas e desafios: IBGE; 2018.

82. Santana BEF, Andrade ACdS, Muraro AP. Trend of incompleteness of maternal schooling and race/skin color variables held on the Brazilian Live Birth Information System, 2012-2020. Epidemiologia e Serviços de Saúde 2023; 32: e2022725.

83. Chor D, Lima CRdA. Aspectos epidemiológicos das desigualdades raciais em saúde no Brasil. Cadernos de Saúde Pública 2005; 21(5): 1586-94.

84. Falcão IR, Ribeiro-Silva RdC, Alves FJO, et al. Evaluating the effect of Bolsa Familia, Brazil's conditional cash transfer programme, on maternal and child health: A study protocol. Plos one 2022; 17(5): e0268500.

85. Rasella D, Alves FJO, Rebouças P, et al. Long-term impact of a conditional cash transfer programme on maternal mortality: a nationwide analysis of Brazilian longitudinal data. BMC medicine 2021; 19: 1-9.

86. Orellana J, Jacques N, Leventhal DGP, Marrero L, Morón-Duarte LS. Excess maternal mortality in Brazil: Regional inequalities and trajectories during the COVID-19 epidemic. Plos one 2022; 17(10): e0275333.

87. Takemoto ML, Menezes MdO, Andreucci CB, et al. The tragedy of COVID-19 in Brazil: 124 maternal deaths and counting. International Journal of Gynecology & Obstetrics 2020; 151(1): 154-6.

88. Watts J. Health emergency over Brazil's Yanomami people. The Lancet 2023; 401(10377): 631.