RESEARCH | PESQUISA

Analysis of child health in the state of Santa Catarina. Brazil: from 1982 to 2018

Análise da saúde da criança no estado de Santa Catarina. Brasil: de 1982 a 2018

Análisis de la salud infantil en el estado de Santa Catarina. Brasil: de 1982 a 2018

Suyanne de Quadros Schmidt[1] (ID)
Juliana Coelho Pina[2] (ID)
Roberta Costa[2] (ID)
Ana Izabel Jatobá de Souza[2] (ID)
Margarete Maria de Lima[2] (ID)
Jane Cristina Anders[2] (ID)

1. Universidade Federal de Santa Catarina, Programa de Pós-Graduação em Enfermagem, Florianópolis, SC, Brasil.

2. Universidade Federal de Santa Catarina, Departamento de Enfermagem, Florianópolis, SC, Brasil.

ABSTRACT

Objective: To analyze policies and programs directed to child health, in the state of Santa Catarina (SC), Brazil, between 1982 and 2018, as well as their contributions to the infant mortality reduction in the state. **Method:** Historical research, with a qualitative approach. Data were collected through documentary research, with manual and electronic search; the documents obtained were submitted to content analysis. **Results:** Health surveillance strategies and primary health care, aimed at the maternal-infant and neonatal public are pointed out as the main responsible for the advancement of the child's health, in SC. The indicators of infant mortality and vaccination coverage, together with the analysis of Santa Catarina's health programs / strategies, pointed these results. **Conclusion and implications for practice:** The state of SC has invested, over 36 years, in various actions and programs that have promoted the improvement of child health, with emphasis on actions of municipal scope. By analyzing and synthesizing information previously pulverized in historical documents, this work contributes to the visualization and understanding about government practices aimed at children in SC, in the last decades, facilitating the replication of good practices.

Keywords: Child Health. Infant Mortality; Protective Factors; Public Policy; Pediatric Nursing

RESUMO

Objetivo: Analisar as políticas e os programas direcionados à saúde da criança, no estado de Santa Catarina (SC), Brasil, entre 1982 e 2018, bem como suas contribuições para a redução da mortalidade infantil no estado. **Método:** Pesquisa histórica, com abordagem qualitativa. Os dados foram coletados por meio de pesquisa documental, com busca manual e eletrônica; os documentos obtidos foram submetidos à análise de conteúdo. **Resultados:** Apontam-se as estratégias de vigilância em saúde e atenção primária à saúde, voltadas ao público materno-infantil e neonatal, como as principais responsáveis pelo avanço da saúde da criança, em SC. Os indicadores de mortalidade infantil e cobertura vacinal, juntamente com a análise dos programas/estratégias de saúde catarinenses evidenciaram esses resultados. **Conclusão e implicações para a prática:** o estado de SC investiu, ao longo de 36 anos, em diversas ações e programas que fomentaram a melhoria da saúde da criança, com destaque para as ações de caráter municipal. Analisando e sintetizando as informações previamente pulverizadas em documentos históricos, este trabalho contribui para a visualização e compreensão acerca das práticas governamentais voltadas à criança em SC, nas últimas décadas, facilitando a replicação de boas práticas.

Palavras-chave: Saúde da Criança; Mortalidade Infantil; Fatores de Proteção; Política Pública. Enfermagem Pediátrica.

RESUMEN

Objetivo: Analizar las políticas y programas dirigidos a la salud infantil, en el estado de Santa Catarina (SC), Brasil, entre 2015 y 2018, así como sus contribuciones a la reducción de la mortalidad infantil en el estado. **Método:** Investigación histórica, con enfoque cualitativo. Los datos fueron recolectados mediante investigación documental, con búsqueda manual y electrónica; los documentos obtenidos fueron sometidos a análisis de contenido. **Resultados:** Las estrategias de vigilancia de la salud y la atención primaria de salud, dirigidas al público materno infantil y neonatal se señalan como las principales responsables del avance de la salud del niño en SC. Los indicadores de mortalidad infantil y cobertura de vacunación, junto con el análisis de los programas / estrategias de salud de Santa Catarina, mostraron estos resultados. **Conclusión y implicaciones para la práctica:** El estado de SC ha invertido, durante 36 años, en diversas acciones y programas que han promovido la mejora de la salud del niño, con énfasis en acciones de carácter municipal. Analizando y sintetizando la información previamente pulverizada en documentos históricos, este trabajo contribuye a la visualización y comprensión de las prácticas gubernamentales dirigidas a los niños en SC, en las últimas décadas, facilitando la replicación de buenas prácticas.

Palabras clave: Salud del Niño; Mortalidad Infantil; Factores Protectores; Política Pública; Enfermería Pediátrica.

Corresponding author
Juliana Coelho Pina
Email: pina.juliana@ufsc.br.

INTRODUCTION

The study of the infant mortality (MI) assists in the analysis and development of specific projects and actions aimed at improving public health care. In addition to being an important indicator of the quality of a population´s health, the IM rate highlights regional socioeconomic disparities – which impact on child health development. Some basic health services such as vaccination, medical treatment, adequate nutrition, drinking water, and sanitation are directly related to the regional socioeconomic issue, and become issues of life or death when children do not have access to them.[1]

In order to reduce the triggering factors of child deaths in Brazil, over the years, the Ministry of Health (MH) has promoted several health actions and strategies focused on this scope. One of the most recent was the National Policy for Comprehensive Child Health Care (PNAISC), instituted in 2015, with the purpose of qualifying child care in the country. This policy establishes actions that aim to promote healthy birth and development, contribute to reducing vulnerabilities and risks to illness, prevent chronic diseases in adult life, and reduce premature infant death.[2] Moreover, historically, many public actions developed in the country have been successful and, between 1940 and 2017, the mortality rate of children under one year of age declined by 91.3%, while the mortality rate of one to four years of age decreased 97.2%.[3]

Despite the Brazilian progress in the health of the child population, many are the regional differences visualized in the country, mainly when we talk about statistical data. According to the Brazilian mortality table proposed by the IBGE, with data for 2017, the probability of a newborn infant in Amapá not completing the first year of life is 23%, while in Santa Catarina (SC) this possibility drops to 8.9%. Moreover, the population of Santa Catarina has the highest life expectancy of the country: a person born in SC expects to live an average of 8.5 years more than a person born in Maranhão. This indicator also reflects the level of mortality of a population in general, since a newborn infant will suffer the risks of death in all phases of life.[3] Reducing inequalities is essential to end preventable deaths in childhood and ensure that no child is left behind.[1]

In 2016, the state of Santa Catarina had its largest reduction in MI since 1990, totaling 8.8 deaths for every one thousand live births, an average 11% lower than the previous year of 9.9 deaths. Meanwhile, in the same year, the national average increased for the first time in 26 years, reaching a percentage of 14 deaths for every one thousand live births, an increase of 5.2% compared to the previous year.[4]

Considering the facts cited, the present study seeks to analyze the health policies and programs aimed at children in the state of SC, between 1982 and 2018, which may have contributed to the good rates of MI achieved by the state. Through the exchange of information and the sharing of successful experiences, this research can cooperate with the other regions of the country, in the replication of good practices, barring the stagnation of progress and avoiding that previous achievements are easily forgotten and lost.

The historical cut was determined based on the creation of the Program of Integrated Health Actions (PAIS), implemented between 1982 and 1983, in the municipality of Lages/SC, which fostered the municipalization of health care networks in the state, providing the creation of various actions and services that culminated in the significant improvement of the health rates of SC at the time.

METHOD

This is a historical research, with a qualitative approach. Developed from the collection, organization and critical evaluation of data that had a relationship with past occurrences, in the scope of children´s health, in the state of SC.[5]

The documentary research was done by means of manual and electronic search. The electronic search was performed in the databases of the Virtual Health Library (BVS), in the electronic page of the State Health Secretariat (SES) of Santa Catarina and of the Public Health Journal of Santa Catarina, as well as in the information systems of the Ministry of Health – DATASUS. The following descriptors were used to search the BVS databases: *Child Health; Child mortality; Protection factors; and Public Policy.* In the website of SHS and Public Health Journal of Santa Catarina, the descriptor used was *Child health*.

The selected documents obeyed the following criteria: language of publication Portuguese, English or Spanish; period of publication between 1982 and 2018; and theme on actions, policies and programs directed to children in the state of SC. Publications that addressed specific programs in the other states of the country were excluded.

The manual search was carried out by the main researcher, from visits to the SES headquarters, in the Public Health Library and the Official State Archive/Official Press, from November 2018 to April 2019. All the documents deemed relevant were photographed with the help of a cell phone camera and later transcribed on a board, chronologically organized by the author. This table was drawn up by the main author and consisted of columns relating to the transcribed excerpt (which contained information on the health of the child in the state), the document in which the excerpt was obtained and the year of publication. Once the data had been organized, the content analysis, in its thematic modality has been started.[6] It was operated in three stages: pre-analysis, from the floating Reading and constitution of the corpus; exploration of the material with codification, from the highlight/griffins in different colors, according to the nature of the text content; and treatment of the results obtained and interpretation, working with emerging meanings of the data. From the analysis, it was possible to carry out the data categorization and highlight the documental historical body, discussing it within the context of the period in which the study is being conducted, seeking to relate the past with the present and point out perspectives for the future, regarding the child health.[5,6]

This research, in all its stages, contemplated the recommendations of Resolution 466/12 of the National Health Council, and was considered and approved by the UFSC Research

Ethics Committee, under CAAE protocol 04551318.2.0000.0121 and opinion number 3.168.729.

RESULTS

Through a manual search in the public archive, public health library and SES headquarters, 26 books were selected from the Governor´s Message to the SC Legislative Assembly (LMGAL) from 1985 to 2017 and 1 (one) state health plan.

As for the electronic search, in the BVS databases 34 results were obtained, considering all the descriptors grouped. The search with the descriptors *Child Health*, *Child Mortality* and *Protection Factors* yielded 91 results. Still in the BVS, from the search with the descriptors *Child Health*, *Infant Mortality* and *Public Policy*, 211 results emerged. The productions raised by the search on this basis were journal articles, works published in annals, monographs, dissertations, theses, basic texts on health and bulletins. From the total obtained, after reading the abstract, 5 were selected for this historical research. In the *website* of the Public Health Journal of Santa Catarina, 12 articles were obtained from the descriptor *Child health*, from which none were selected, after reading the abstract. On the SES website, from the descriptor *Child health*, 1210 results emerged, among them: laws, ordinances, deliberations, technical notes, reports and news; from these, 32 documents were selected - 7 news, 2 ordinances, 10 deliberations, 1 technical note, 2 decrees and 10 laws. With the help of the DATASUS – TABNET information system, the main researcher had access to the mortality rates per region/ year of occurrence and the vaccination coverage rate of SC, per year; using these variables available in the system, two graphs contained in this article were developed.

From the data analysis, three categories emerged: *Health Surveillance, Implementation and evaluation of programs* and *Health network expansion,* which will be presented below, in the format of schemes organized by the author, based on findings in physical and electronic documents.

Health Surveillance

In child health, one of the main indicators used is the infant mortality coefficient (CMI) or infant mortality rate (TMI). As shown in Figure 1, the monitoring and analysis of this indicator are revealed in the documents consulted, together with the creation of committees to control these deaths and the use of this indicator for the evaluation of programs aimed at child health in SC.[7-14]

Considering health surveillance, other important actions identified in the documents consulted were the control of vaccination and the monitoring of vaccination coverage, together with its impact on the rates of immunity preventable diseases (Figure 2).[7,9,11,15]

Monitoring the incidence and prevalence of communicable diseases is one of the key actions of health surveillance, and reporting is one of the strategies. However, the state of SC expanded the scope of this strategy, incorporating epidemiologically important eating disturbances in childhood. On July, 1995, energy-protein malnutrition became a compulsory notification in SC and, with the epidemiological changes, in 2010 the Childhood Obesity

Prevention and Treatment Program was instituted in the state, which required educational institutions to perform periodic physical evaluation of students and notify families with regard to results.[16,17]

Surveillance and attention to diseases//conditions prevalent in childhood has therefore been one of the focuses of child health in the state. In 1986, the Santa Catarina government offered medical assistance services to control diarrhoeal diseases in children under 5 years of age, care for acute respiratory infections in children between 1 and 4 years of age, and food supplementation to vulnerable groups of pregnant women, nursing mothers and children under 3 years of age within the PAIS, obtaining positive results at the time. In 2007, the standardized treatments adopted as a basic care strategy were responsible for the significant decrease in hospitalization of children under 5 years due to IRA (Acute respiratory failure).[8,9]

Initially, the actions focused on respiratory, diarrheal and deficiency diseases; more recently, following the epidemiological profile of the child population and the challenges to control morbidity and mortality, the scope was extended to chronic and impacting conditions in the process of growth and development. In the period from 2009 to 2013, the survival rate in children with cancer was 73% in Santa Catarina, a fact that is related to the discovery of the disease in the initial phase and treatment in specialized centers present in the state.[18]

Surveillance in the pregnancy-puerperal and neonatal cycle also appeared among the findings, as summarized in Figure 3. Care and concern were observed with an increasing percentage of cesarean sections, outstanding actions in humanizing delivery and birth, Family planning, surveillance of congenital conditions, and the formation of specialized care for carrier children.[8,9,19-27]

Understanding surveillance as a shared competence with the population, the state of SC also articulated actions of sensibilization and community mobilization, related to child health, such as: carrying out a campaign to prevent child obesity, establishing in the calendar, the state day to combat childhood cancer.[28-30]

Program implementation and evaluation

The documentary sources consulted revealed a series of health programs implemented in the state of SC. In addition to the creation of these programs, another important strategy identified was their evaluation. Although references to the evaluation of all implemented programs were not found, we identified some information in this regard. In addition to the evaluation made by management, there are also records of awards received by the state of SC and its municipalities (Figure 4).[15,31-34]

Expansion of the Health Network

The state has a historical tradition in the shaping of Primary Health Care (APS) services, using the Family Health Strategy (ESF) and the Community Health Agents Program (PACS) to strengthen them. The first municipalities in Santa Catarina that have implemented ESF signed adhesion agreements in mid-1994, the year in which FHS (ESF) was created (at the time PSF): Ascurra, Blumenau, Chapecó, Criciúma, Florianópolis, Joinville

and Lages. In 2007, PSF was already implemented in 99.6% of Santa Catarina´s municipalities, guaranteeing the coverage of 65% of the population[8,35]

In addition to the expansion of ESF and of PACS, the state has invested in team support services and expansion of the minimum team, based on financing, purchase of equipment and training since the late 1990s. Investments in APS placed the state of SC in a prominent position Nationwide, admittedly at the end of the first decade of 2000. In 2009, the state became the only Brazilian state with all the municipalities covered by ESF;

Monitoring and analysis of the IM in SC

The analysis of the causes of MI in SC according to the 1987LMGAL characterized the disability of the prenatal care, childbirth and NB care the disability in public health actions and the precarious conditions of basic sanitation.[7]

The State Health Plan (PES) revealed a 24.7% sharp reduction of the IM indicator, between 1996 and 2004 and related the decline to the late IM reduction.[8]

SC highlight in IM I in the country

The 2010 LMGAL states that SC disputes the leadership in the ranking that defines the lowest IM indexes in the country. While in Brazil, 23.3 babies die before they are one year old, for every thousand live births, in SC the IM index is 11.61, equivalent to that of developed countries.[11]

According to the 2012 LMGAL, while in Brazil, 17.6 babies die before one year of age for every 1,000 live births in SC the index of IM is 10.4.[12]

Evaluation of the health programs implemented in SC

According to the 1986 LMGAL after the implementation of PAIS in SC in 1983 there was a significant reduction in the IM index of 25%, confirming the program´s performance in the previous years.[9]

The Precious Baby Program of Joinville´s SMS, according to technical note no. 03/GEABS/SUG/SES/2018, has contributed to reducing the municipality´s infantile morbidity and mortality, which has gone from 10.1 deaths in 2008 to 7.4 in 2012.[10]

Committees on prevention of de maternal, infant and fetal deaths in SC

In 2013, Ordinance No. 785 of 13/11/2013 established the State Committee for the Prevention of Maternal and Fetal deaths.[13]

The "Floripa Pela Vida" Committee for the Prevention of Maternal, Infant, Fetal and Vertical Death in Florianópolis – SC[14] was established on November, 6, 2018, as of Decree No.19,108.

Evolution of IM in SC and in Brazil, from 1990 to 2017.

INFANT_MORTALITY RATE

BRASIL
SC

Source: Elaborated by the author from documents consulted and information in Health(TABNET) (2019).
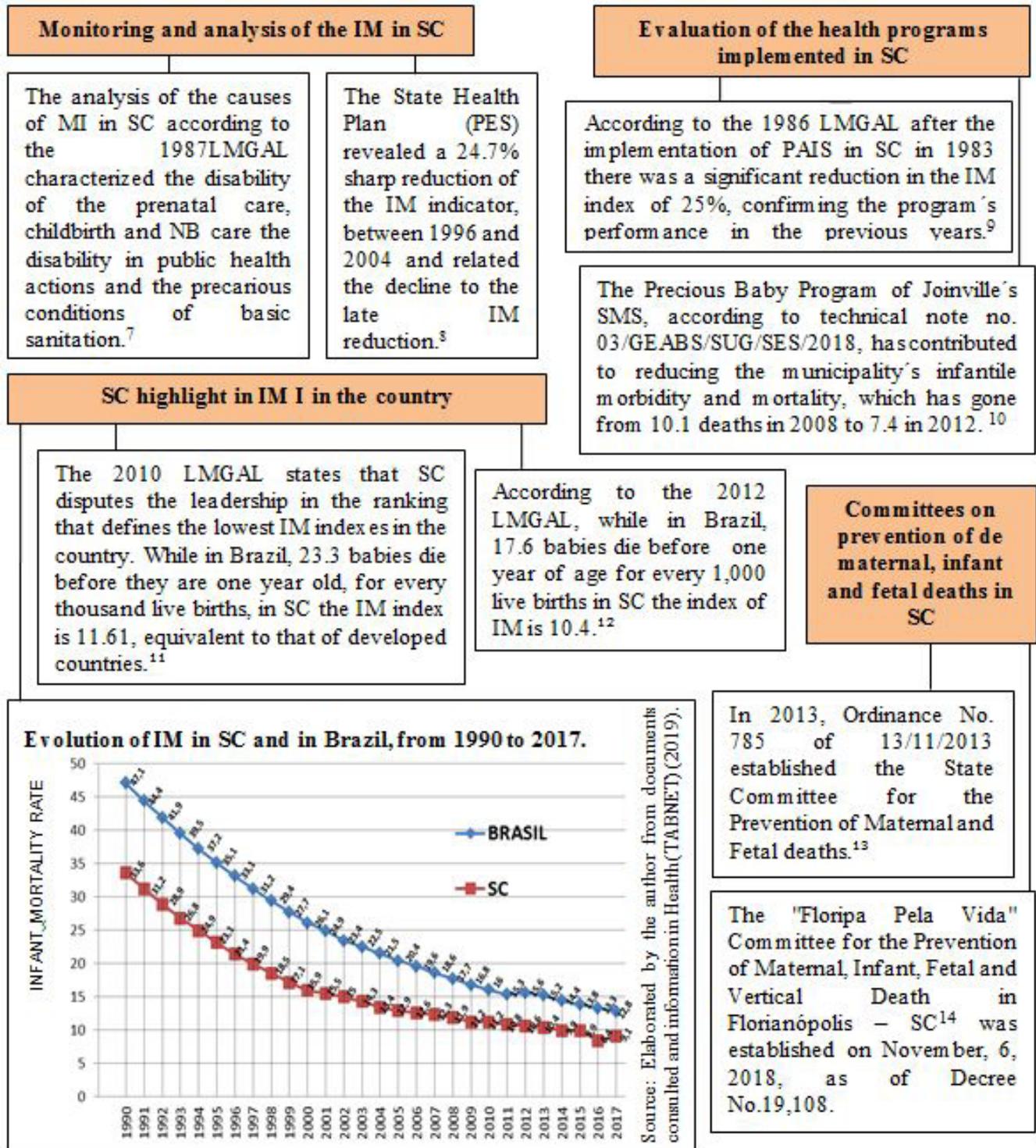
Figure 1. Summarization of data related to the thematic category "Health Surveillance", referring to the monitoring and analysis of MI, creation of control and evaluation committees of health programs. Santa Catarina, 2019.

to this end, at that time, the state had 1,328 family health teams (EqSF) and almost 10,000 community health agents (ACS).[11,35-37]

Following the investments in APS, the documents consulted identified the expansion of the hospital network and specialized care services. One of the highlighted investments is the expansion of children´s hospitals and acquisition of technologies, as well as the implementation of neonatal intensive care units (UTIN). In 2016, there was an investment of R$ 8.43 million for inauguration

of the first stage of the Children´s Hospital of Joinville; in 2018, the number of UTIN in SC was above the national average.[38,39]

Another point highlighted in the sources obtained is the investment in services aimed at reducing maternal - infant mortality. In mid-1997, there was an increase in the outpatient clinic of the Maternity Dona Catarina Kuss, increasing the offer of prenatal services. In 2001, the MS invested more than R$ 750 thousand in kits for the care for high-risk pregnant women in SC; at that
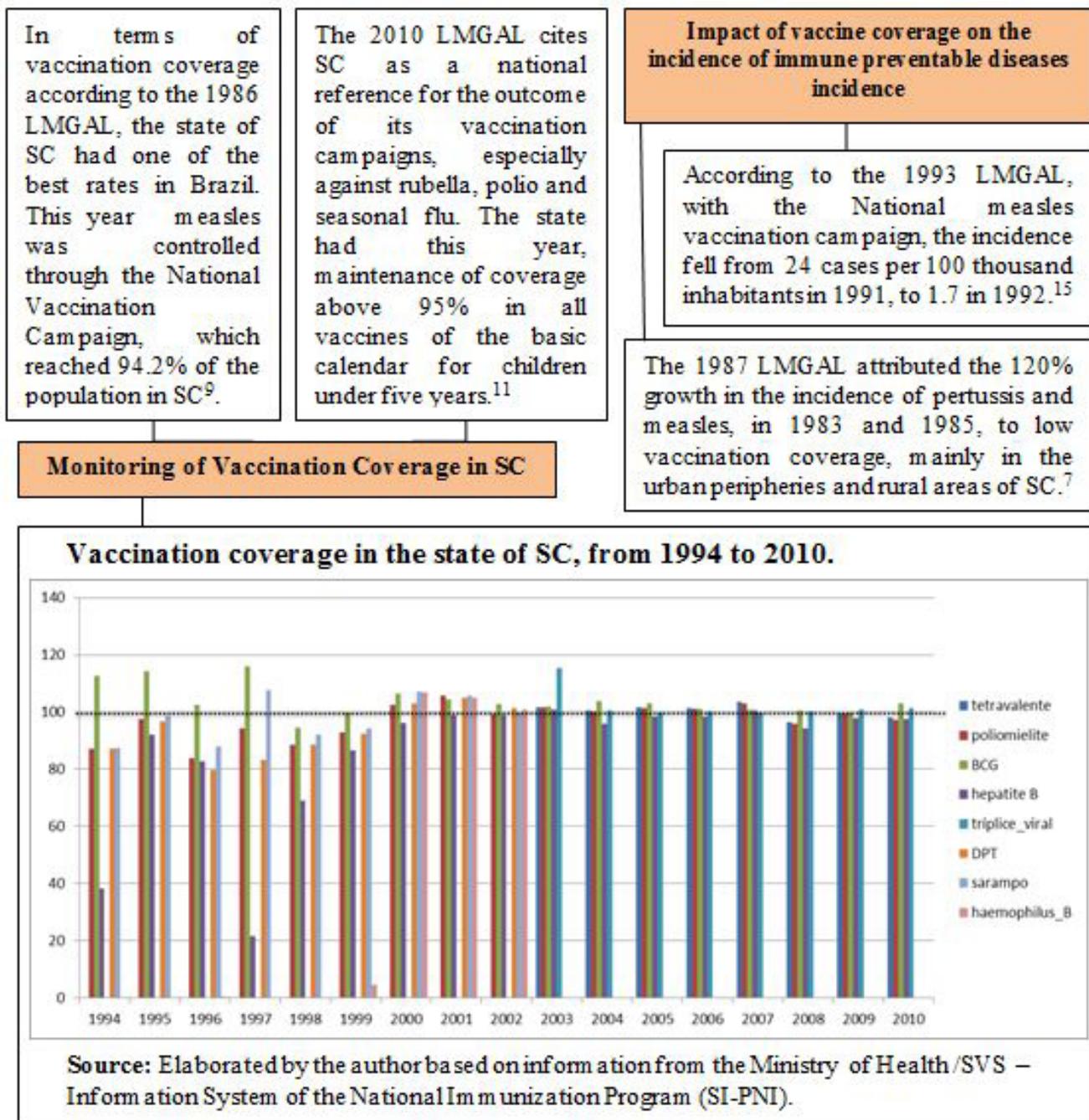
In terms of vaccination coverage according to the 1986 LMGAL, the state of SC had one of the best rates in Brazil. This year measles was controlled through the National Vaccination Campaign, which reached 94.2% of the population in SC[9].

The 2010 LMGAL cites SC as a national reference for the outcome of its vaccination campaigns, especially against rubella, polio and seasonal flu. The state had this year, maintenance of coverage above 95% in all vaccines of the basic calendar for children under five years.[11]

Impact of vaccine coverage on the incidence of immune preventable diseases incidence

According to the 1993 LMGAL, with the National measles vaccination campaign, the incidence fell from 24 cases per 100 thousand inhabitants in 1991, to 1.7 in 1992.[15]

The 1987 LMGAL attributed the 120% growth in the incidence of pertussis and measles, in 1983 and 1985, to low vaccination coverage, mainly in the urban peripheries and rural areas of SC.[7]

Monitoring of Vaccination Coverage in SC

Vaccination coverage in the state of SC, from 1994 to 2010.

Source: Elaborated by the author based on information from the Ministry of Health /SVS – Information System of the National Immunization Program (SI-PNI).

Figure 2. Summarization of data related to the thematic category "Health Surveillance", referring to vaccination control and vaccination monitoring and control of immunity preventable diseases in SC, 2019.

time the state had 7 hospitals, which covered 6 macro-regions and offered high complexity care for pregnant women.[37,40]

Still in relation to specialized assistance, the structuring of child mental health services in the state is highlighted, from the beginning of the 2000s, with the implementation of the service in the domain of child and adolescent chemical dependence. In 2005, the capital of Santa Catarina and the city of Chapecó received the accreditation of the Child and Adolescent Psychosocial Healthcare Center (CAPSi) which was later, in 2007, also offered in the municipality of Lages.[40-43]
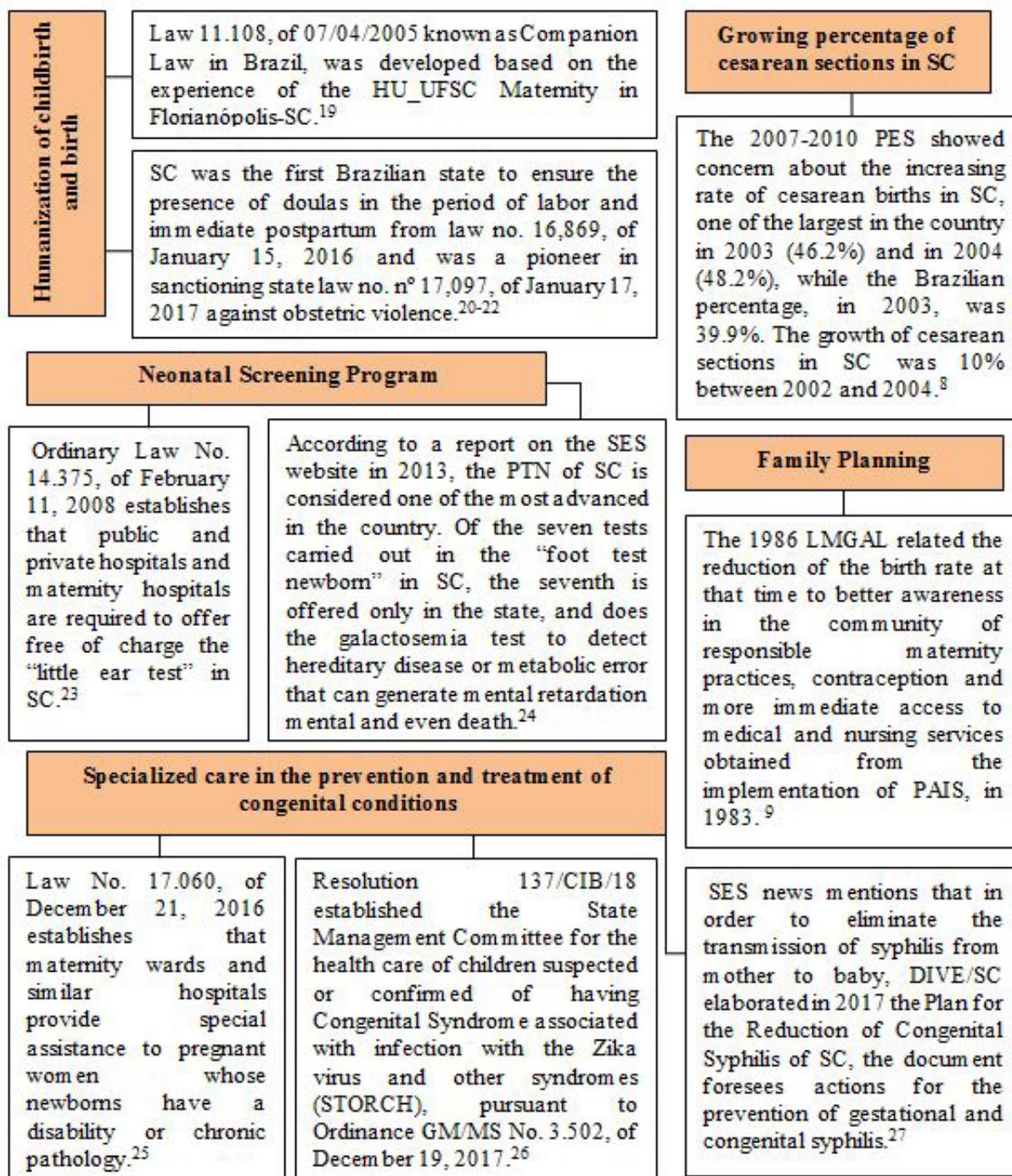

Humanization of childbirth and birth

Law 11.108, of 07/04/2005 known as Companion Law in Brazil, was developed based on the experience of the HU_UFSC Maternity in Florianópolis-SC.[19]

SC was the first Brazilian state to ensure the presence of doulas in the period of labor and immediate postpartum from law no. 16,869, of January 15, 2016 and was a pioneer in sanctioning state law no. nº 17,097, of January 17, 2017 against obstetric violence.[20-22]

Neonatal Screening Program

Ordinary Law No. 14.375, of February 11, 2008 establishes that public and private hospitals and maternity hospitals are required to offer free of charge the "little ear test" in SC.[23]

According to a report on the SES website in 2013, the PTN of SC is considered one of the most advanced in the country. Of the seven tests carried out in the "foot test newborn" in SC, the seventh is offered only in the state, and does the galactosemia test to detect hereditary disease or metabolic error that can generate mental retardation mental and even death.[24]

Specialized care in the prevention and treatment of congenital conditions

Law No. 17.060, of December 21, 2016 establishes that maternity wards and similar hospitals provide special assistance to pregnant women whose newborns have a disability or chronic pathology.[25]

Resolution 137/CIB/18 established the State Management Committee for the health care of children suspected or confirmed of having Congenital Syndrome associated with infection with the Zika virus and other syndromes (STORCH), pursuant to Ordinance GM/MS No. 3.502, of December 19, 2017.[26]

Growing percentage of cesarean sections in SC

The 2007-2010 PES showed concern about the increasing rate of cesarean births in SC, one of the largest in the country in 2003 (46.2%) and in 2004 (48.2%), while the Brazilian percentage, in 2003, was 39.9%. The growth of cesarean sections in SC was 10% between 2002 and 2004.[8]

Family Planning

The 1986 LMGAL related the reduction of the birth rate at that time to better awareness in the community of responsible maternity practices, contraception and more immediate access to medical and nursing services obtained from the implementation of PAIS, in 1983.[9]

SES news mentions that in order to eliminate the transmission of syphilis from mother to baby, DIVE/SC elaborated in 2017 the Plan for the Reduction of Congenital Syphilis of SC, the document foresees actions for the prevention of gestational and congenital syphilis.[27]

Figure 3. Summarization of data on the thematic category "Health Surveillance", referring to the humanization of childbirth and birth, family planning, percentage of cesarean sections, neonatal screening program and prevention and treatment of congenital conditions in SC, 2019.
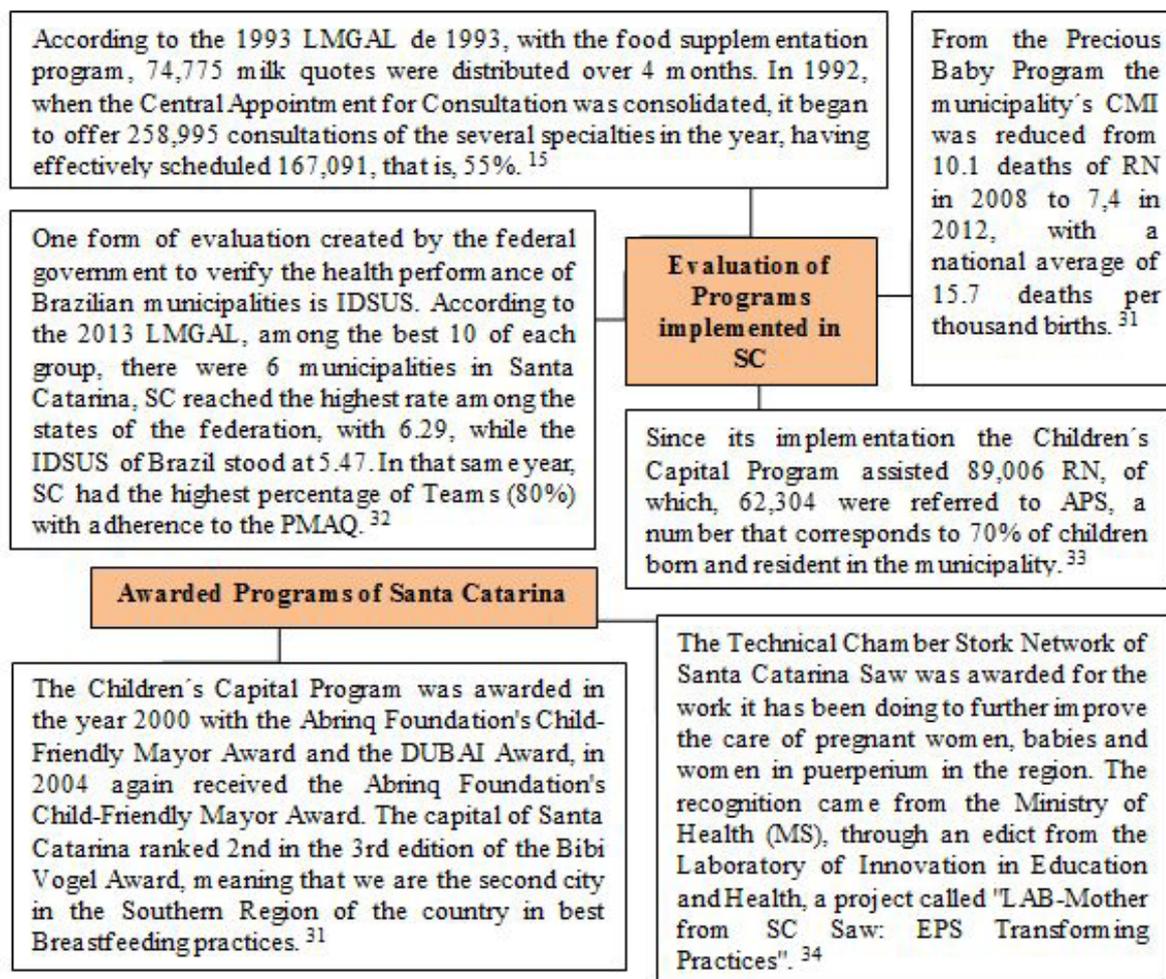
According to the 1993 LMGAL de 1993, with the food supplementation program, 74,775 milk quotes were distributed over 4 months. In 1992, when the Central Appointment for Consultation was consolidated, it began to offer 258,995 consultations of the several specialties in the year, having effectively scheduled 167,091, that is, 55%. [15]

From the Precious Baby Program the municipality´s CMI was reduced from 10.1 deaths of RN in 2008 to 7,4 in 2012, with a national average of 15.7 deaths per thousand births. [31]

One form of evaluation created by the federal government to verify the health performance of Brazilian municipalities is IDSUS. According to the 2013 LMGAL, among the best 10 of each group, there were 6 municipalities in Santa Catarina, SC reached the highest rate among the states of the federation, with 6.29, while the IDSUS of Brazil stood at 5.47. In that same year, SC had the highest percentage of Teams (80%) with adherence to the PMAQ. [32]

Evaluation of Programs implemented in SC

Since its implementation the Children´s Capital Program assisted 89,006 RN, of which, 62,304 were referred to APS, a number that corresponds to 70% of children born and resident in the municipality. [33]

Awarded Programs of Santa Catarina

The Children´s Capital Program was awarded in the year 2000 with the Abrinq Foundation's Child-Friendly Mayor Award and the DUBAI Award, in 2004 again received the Abrinq Foundation's Child-Friendly Mayor Award. The capital of Santa Catarina ranked 2nd in the 3rd edition of the Bibi Vogel Award, meaning that we are the second city in the Southern Region of the country in best Breastfeeding practices. [31]

The Technical Chamber Stork Network of Santa Catarina Saw was awarded for the work it has been doing to further improve the care of pregnant women, babies and women in puerperium in the region. The recognition came from the Ministry of Health (MS), through an edict from the Laboratory of Innovation in Education and Health, a project called "LAB-Mother from SC Saw: EPS Transforming Practices". [34]

Figure 4. Summarization of data related to the thematic category "Program implementation and evaluation", referring to the evaluation of programs implemented in SC and highlighting the Santa Catarina programs awarded, 2019.

The expansion of health services presupposes their organization, which occurred in a more articulated way from the conformation of the Health Care Networks (RAS), such as the Stork Network, and the Regulation Centers in the state, observed in the second decade of the 2000s. These actions were carried out with the objective of optimizing the use of specialized beds, reducing the queues of elective and emergency surgeries in hospitals, and also organizing hospital care for pregnant women, especially with regard to childbirth and puerperium.[30,32]

DISCUSSION

From the analysis of the results, it became evident the importance of health surveillance practices for maintaining the quality of public health focused on children in the state of SC. According to MS[44] *"Health surveillance constitutes a continuous and systematic process of collection, consolidation, data analysis and dissemination of information on health-related events".*

Health surveillance actions are relevant to the planning and development of health intervention, which aim at health promotion and aggravation promotion, and should be a guide to the practices implemented by the public service.[45] The state of Santa Catarina has sought to correlate the variations in mortality rates with the public policies and programs implemented in its territory, aiming at a diagnosis of its actions and the development of effective public health strategies.

When we talk about statistical data, SC is a state considered a national reference in reducing MI, always remaining below the national average (in the period studied), a fact that awakens recognition to Santa Catarina public health. Even presenting good results, the state demonstrates the concern in maintaining good rates and good practices, maintaining and expanding actions of prevention and control of mortality over the years.

According to the Federal Nursing Council,[46] one factor that is strictly related to the rates of MI is the levels of vaccination coverage. The vaccination target of Santa Catarina citizens, between 2000-2010 was close to 100% coverage, corroborating the low numbers of child deaths in the state. Some excerpts from documents explain the government´s monitoring and concern

about vaccination coverage, where they relate the low rate of coverage to the increase in immunity preventable diseases observed in the state in some periods.[7,9,11,15]

The Brazilian scenario presented changes in the predisposing factors of child deaths over the years - the congenital anomalies already occupied, in the year 2015, the first place among the causes of death, in almost half of the Brazilian states.[47] The actions of maintenance of child health in SC followed the epidemiological scenario of the population: based on the surveillance actions, the state observed these changes mentioned above and, in addition to maintaining the actions already carried out, expanded the attention to the process of child growth and development, also focusing on diseases of a chronic nature, such as cancer and obesity.

In order to maintain the inclination in the health of the maternal-infant population of Santa Catarina, there was investment by the managers, in the creation/development of Control and Surveillance Committees, Laws, Deliberations and Programs aimed at this population. In addition, some strategies and actions. In addition, some strategies and actions aimed at women´s and newborns´ health were developed in the pregnant-puerperal cycle, mainly in the APS, with a greater focus on prenatal, puerperium, and neonatal screening program.

The state of SC was also a national highlight with its health programs, at state and regional levels, as well as its PHC, being recognized from IDSUS evaluations and having great adherence to the PMAQ. To adhere to the PMAQ it is necessary to reach several quality criteria in the PHC; in return, a financial incentive is provided to the registered teams, which configures the program as an important contributor to the evaluation and improvement of the quality of health services.[48]

It is worth noting that, in addition to state programs, some municipalities in Santa Catarina have also developed award-winning strategies to combat MI, and the programs that have proved effective have received national recognition. Like the case of Florianópolis and Joinville, which observed the fall in their CMI from the strategies of Capital Child and Precious Baby Program, respectively.[31]

In addition to the above-mentioned programs, some other programs/actions implemented in the state are federal in nature; however, some localities in Santa Catarina have stood out for the way in which the federal proposals have been implemented, which shapes the different models of attention throughout the country.[34] Furthermore, some SC actions have served as a model for the creation of federal guidelines, such as the Companion Law.[19]

APS plays a fundamental role in maintaining the Brazilian child health – its actions contribute to reducing MI, increasing access to services, high vaccination coverage, and reducing malnutrition.[49] These statements corroborate the fact that the steepest drop in MI in SC was observed with the implementation of programs (such as PSF and PACS) and expansion of APS.

It was also analyzed that the state of SC has been promoting care in networks and managing its actions from planning strategies. The RAS provides states and municipalities with full governance to elaborate their lines of care and assistance flows according to their needs; moreover, it promotes Specialized Care Networks, such as the Stork Network, which has brought benefits to the health of women, children and newborns.[50] Based on municipal and state autonomy, many programs have been developed in the Santa Catarina context, programs that have stood out nationally and have added greatly to child health in the state.

CONCLUSION

According to the results obtained through this study, it is concluded that the State Government of SC invested over 36 years, in various actions and programs, regional and federal, that have promoted the improvement of child health; and, consequently, have contributed to the reduction of the rates of MI presented by the state.

In this study, the health surveillance strategies, management, and actions of APS stood out as one of the main contributors to the progress of children´s health in the state, with actions and policies for health evaluation, prevention, and promotion, Although actions of federal and state initiative stand out, the study evidenced the importance of municipal actions for the advances in child health in SC, a fact that reveals the importance of the autonomy of the city halls about their actions in health.

Rescuing the historical trajectory of child health care in the state makes it possible to reflect on the present and the future that one wants to achieve. Based on the analysis and synthesis of the information previously pulverized in historical documents, this work has contributed to the understanding and visualization of the government practices directed at child in SC, in the last decades.

Difficulties were found in locating physical documents that reflect the history of the health of the child, in the state of SC, few are the records preserved in paper, being that the institutional collection of SES is deficient; fact that characterized a limitation in the study. It is also important to emphasize that the methodology used did not allow the establishment of relationships between historical facts and epidemiological data, although we discussed some possible trends between the CMI and the coverage of programs. Therefore, future epidemiological studies are recommended that allow such correlations, such as time series.

ACKNOWLEDGMENTS

AUTHOR´S CONTRIBUTIONS

Conception and design of the study. Data collection, analysis and interpretation. Discussion of results. Writing and critical review of the manuscript. Approval of the final version of the article. Responsibility for all aspects of the content and integrity of the published article: Suyanne de Quadros Schmidt. Conception and design of the study. Data collection, analysis and interpretation.

Discussion of results. Writing and critical review of the manuscript. Approval of the final version of the article. Responsibility for all aspects of the content and integrity of the published article: Juliana Coelho Pina. Conception and design of the study. Data collection, analysis and interpretation. Discussion of results. Writing and critical review of the manuscript. Approval of the final version of the article. Responsibility for all aspects of the content and integrity of the published article: Roberta Costa. Ana Izabel Jatobá de Souza. Margarete Maria de Lima. Jane Cristina Anders

ASSOCIATED EDITOR

Aline Cristine Caviccioli Okido

REFERENCES

1. United Nations Inter-agency Group for Child Mortality Estimation. Levels & trends in child mortality: report 2019. New York: UNICEF; 2019.

2. Portaria n. 1.130, de 5 de agosto de 2015 (BR). Institui a Política Nacional de Atenção Integral à Saúde da Criança (PNAISC) no âmbito do Sistema Único de Saúde (SUS). Diário Oficial da União [periódico na internet], Brasília (DF), 5 ago 2015 [citado 1 abr 2018]. Disponível em: http://bvsms.saude.gov.br/bvs/saudelegis/gm/2015/prt1130_05_08_2015.html

3. Instituto Brasileiro de Geografia e Estatística. Tábua completa de mortalidade para o Brasil-2017: breve análise da evolução da mortalidade no Brasil [Internet]. Rio de Janeiro (RJ): Coordenação de População e Indicadores Sociais; 2018 [citado 1 abr 2018]. Disponível em: http:www.ibge.gov.br

4. Redação NSC. SC tem maior queda da mortalidade infantil em 26 anos. Diário Catarinense [periódico na internet], Florianópolis (SC), 19 ago 2018 [citado 18 maio 2019]. Disponível em: https://www.nsctotal.com.br/noticias/sc-tem-maior-queda-da-mortalidade-infantil-em-26-anos

5. Padilha MI, Borenstein MS. O método de pesquisa histórica na enfermagem. Texto Contexto Enferm. 2005 out;14(4):575-84. http://dx.doi.org/10.1590/S0104-07072005000400015.

6. Minayo MCS, organizador. Pesquisa social: teoria, método e criatividade. 29ª ed. Petrópolis: Vozes; 2010.

7. Santa Catarina [Governador Pedro Ivo Campos]. Livro de mensagem à Assembleia Legislativa. Florianópolis (SC): Governo do Estado; 1987.

8. Secretaria de Estado da Saúde (SC). Plano Estadual de Saúde 2007-2010. Florianópolis (SC): IOESC; 2007.

9. Santa Catarina. [Governador Esperidião Amin]. Livro de mensagem à Assembleia Legislativa. Florianópolis (SC): Governo do Estado; 1986.

10. Nota Técnica n. 03/GEABS/SUG/SES/2018 (SC). Dispões sobre o Bebê Precioso - Fluxo de seguimento da criança de risco e alto risco egressa de Unidade de Terapia Intensiva (UTI) Neonatal em Santa Catarina. Diário Oficial de Santa Catarina [periódico na internet], Florianópolis (SC), 23 ago 2017 [citado 18 maio 2019]. Disponível em: http://saude.sc.gov.br/index.php/informacoes-gerais-documentos/atencao-basica/notas-tecnicas-ab-aps

11. Santa Catarina [Governador Luiz Henrique da Silveira]. Livro de mensagem à Assembleia Legislativa. Florianópolis (SC): Governo do Estado; 2010.

12. Santa Catarina [Governador João Raimundo Colombo]. Livro de mensagem à Assembleia Legislativa. Florianópolis (SC): Governo do Estado; 2012.

13. Portaria n. 785 de 13/11/2013 (SC). Institui o Comitê Estadual de Prevenção dos Óbitos Materno, Infantil e Fetal (CEPOMIF) em Santa Catarina. Diário Oficial de Santa Catarina [periódico na internet], Florianópolis (SC), 25 nov 2013.

14. Decreto n. 19.108, de 6 de novembro de 2018 (SC). institui o comitê "Floripa pela Vida" de prevenção do óbito materno, infantil, fetal e transmissão vertical de Florianópolis – SC. Diário Oficial Eletrônico do Município de Florianópolis, Florianópolis (SC), 6 nov 2018 [citado 18 maio 2019]. Disponível em: http://www.pmf.sc.gov.br/governo/index.php?pagina=govdiariooficial

15. Santa Catarina [Governador Vilson Pedro Kleinübing]. Livro de mensagem à Assembleia Legislativa. Florianópolis (SC): Governo do Estado; 1993.

16. Lei Ordinária n. 10.867, de 7 de agosto de 1998 (SC). Dispõe sobre a notificação compulsória de casos de subnutrição às autoridades da área da saúde pública. Diário Oficial de Santa Catarina [periódico na internet], Florianópolis (SC), 7 ago 1998.

17. Lei n. 15.265 de 18 de agosto de 2010 (SC). Autoriza o Poder Executivo a instituir o Programa de Prevenção e Tratamento da Obesidade Infantil nas instituições de ensino públicas e privadas do Estado de Santa Catarina. Diário Oficial de Santa Catarina [periódico na internet], Florianópolis (SC), 18 ago 2010.

18. Secretaria de Estado da Saúde (SC). Taxa de sobrevida em crianças com câncer é de 73% em Santa Catarina [Internet]. Florianópolis (SC); 2014 nov 21 [citado 20 mar 2019]. Disponível em: http://www.saude.sc.gov.br/index.php/noticias-geral/todas-as-noticias

19. Pereira SM, Santos ML, Santos PQ. Direito das mulheres: ter acompanhante durante o parto: a experiência da lei brasileira. Anais do Seminário Internacional Fazendo Gênero 9: Diásporas, Diversidades, Deslocamentos; 2010 ago. 23-26; Florianópolis (SC), Brasil. Florianópolis (SC): UFSC; 2010. p. 1-9.

20. Lei n. 16.869 de 15 de janeiro de 2016 (SC). Dispõe sobre a presença de Doulas durante todo o período de trabalho de parto, parto e pós-parto imediato, e estabelece outras providências. Diário Oficial de Santa Catarina [periódico na internet], Florianópolis (SC), 15 jan 2016.

21. Secretaria de Estado da Saúde (SC). Mortalidade materna e infantil em Santa Catarina está abaixo da média do Brasil [Internet]. Florianópolis (SC); 2017 set 29 [citado 20 mar 2019]. Disponível em: http://www.saude.sc.gov.br/index.php/noticias-geral/todas-as-noticias

22. Lei n. 17.097 de 17 de janeiro de 2017 (SC). Dispõe sobre a implantação de medidas de informação e proteção à gestante e parturiente contra a violência obstétrica no Estado de Santa Catarina. Diário Oficial de Santa Catarina [periódico na internet], Florianópolis (SC), 17 jan 2017.

23. Lei Ordinária n. 14.375 de 11 de fevereiro de 2008 (SC). Autoriza o governo do estado a implementar projeto que determine que as maternidades e os estabelecimentos hospitalares públicos e privados do estado de Santa Catarina fiquem obrigados a realizar, gratuitamente, o exame de emissões otoacústicas evocadas (teste da orelhinha) para o diagnóstico precoce de surdez nos bebês nascidos nestes estabelecimentos. Diário Oficial de Santa Catarina [periódico na internet], Florianópolis (SC), 11 fev 2008.

24. Secretaria de Estado da Saúde (SC). Santa Catarina é referência nacional para o Teste do Pezinho [Internet]. Florianópolis (SC); 2013 dez 19 [citado 24 mar 2019]. Disponível em: http://www.saude.sc.gov.br/index.php/noticias-geral/todas-as-noticias

25. Lei n. 17.060 de 21 de dezembro de 2016 (SC). Dispõe sobre a prestação de assistência especial a parturientes cujos filhos recém-nascidos apresentem deficiência ou patologia crônica. Diário Oficial de Santa Catarina [periódico na internet], Florianópolis (SC), 21 dez 2016.

26. Deliberação 137/CIB/18 (SC). A instituição do Comitê Gestor Estadual de atenção à saúde das crianças suspeitas ou confirmadas para Síndrome Congênita associadas à infecção pelo vírus Zika e outras síndromes (STORCH), nos termos da Portaria GM/MS n. 3.502, de 19 de dezembro de 2017. Diário Oficial de Santa Catarina [periódico na internet], Florianópolis (SC), 21 jun 2018 [citado 24 mar 2019]. Disponível em: http://www.saude.sc.gov.br/index.php/legislacao/deliberacoes-cib

27. Secretaria de Estado da Saúde (SC). Saúde divulga boletim sobre sífilis em Santa Catarina [Internet]. Florianópolis (SC); 2018 dez 13 [citado 22 mar 2019]. Disponível em: http://www.saude.sc.gov.br/index.php/noticias-geral/todas-as-noticias

28. Lei n. 13.271 de 10 de janeiro 2005 (SC). Institui o Dia Estadual de Combate ao Trabalho Infantil no Estado de Santa Catarina. Diário Oficial de Santa Catarina [periódico na internet], Florianópolis (SC), 26 jun 2005.

29. Lei n. 16.161 de 7 de novembro de 2013 (SC). Institui o Dia Estadual de Combate ao Câncer Infantil, no Estado de Santa Catarina. Diário Oficial de Santa Catarina [periódico na internet], Florianópolis (SC), 7 nov 2013.

30. Santa Catarina [Governador João Raimundo Colombo]. Livro de mensagem à Assembleia Legislativa. Florianópolis (SC): Governo do Estado; 2015.

31. Florianópolis, Secretaria Municipal de Saúde. Minuta Capital Criança. Florianópolis (SC); 2011.

32. Santa Catarina [Governador João Raimundo Colombo]. Livro de mensagem à Assembleia Legislativa. Florianópolis (SC): Governo do Estado; 2013.

33. Aires LCP, Santos EKA, Bruggemann OM, Backes MTS, Costa R. Reference and counter-reference health care system of infant discharged from neonatal unit: perceptions of primary care health professionals. Esc Anna Nery. 2017;21(2):1-7. http://dx.doi.org/10.5935/1414-8145.20170028.

34. Secretaria de Estado da Saúde (SC). Ministério da Saúde destaca trabalho da Rede Cegonha na Serra Catarinense [Internet]. Florianópolis (SC); 2018 fev 14 [citado 22 mar 2019]. Disponível em: http://www.saude.sc.gov.br/index.php/noticias-geral/todas-as-noticias

35. Santa Catarina [Governador Luiz Henrique da Silveira]. Livro de mensagem à Assembleia Legislativa. Florianópolis (SC): Governo do Estado; 2008.

36. Ministério da Saúde (BR), Sistema de Informações de Saúde, Sistema de Informação em Atenção Básica. Famílias acompanhadas por ano e modelo de atenção de 1998 a 2015 [Internet]. Brasília (DF); 2019 14 [citado 30 mar 2019]. Disponível em: http://tabnet.datasus.gov.br/cgi/deftohtm.exe?siab/cnv/SIABSBR.DEF

37. Santa Catarina [Governador Paulo Afonso Evangelista]. Livro de mensagem à Assembleia Legislativa. Florianópolis (SC): Governo do Estado; 1998.

38. Santa Catarina [Governador Luiz Henrique da Silveira]. Livro de mensagem à Assembleia Legislativa. Florianópolis (SC): Governo do Estado; 2007.

39. Secretaria de Estado da Saúde (SC). Santa Catarina tem número de leitos de UTI neonatal acima da média nacional [Internet]. Florianópolis (SC); 2018 maio 22 [citado 30 mar 2019]. Disponível em: http://www.saude.sc.gov.br/index.php/noticias-geral/todas-as-noticias

40. Santa Catarina [Governador Esperidião Amin]. Livro de mensagem à Assembleia Legislativa. Florianópolis (SC): Governo do Estado; 2002.

41. Deliberação 015/CIB/05 (SC). Aprova o credenciamento do "Centro de Atenção Psicossocial para Crianças e Adolescentes" (CAPSi) do município de Florianópolis. Secretaria de Estado da Saúde – Deliberações CIB. Diário Oficial de Santa Catarina [periódico na internet], Florianópolis (SC), 8 abr 2005 [citado 22 mar 2019]. Disponível em: http://www.saude.sc.gov.br/index.php/legislacao/deliberacoes-cib

42. Deliberação 038/CIB/05 (SC). Aprova a implantação do Centro de Atenção Psicossocial da Criança e do Adolescente (CAPSi) no município de Chapecó, e o Centro de Atenção Psicossocial I (CAPS I) no município de Quilombo. Secretaria de Estado da Saúde – Deliberações CIB. Diário Oficial de Santa Catarina [periódico na internet], Florianópolis (SC), 24 jun 2005 [citado 22 mar 2019]. Disponível em: http://www.saude.sc.gov.br/index.php/legislacao/deliberacoes-cib

43. Deliberação 206/CIB/07 (SC). Aprova o credenciamento do Centro de Atenção Psicossocial – CAPS i II, para atendimento de crianças e adolescentes, do Município de Lages. Secretaria de Estado da Saúde – Deliberações CIB. Diário Oficial de Santa Catarina [periódico na internet], Florianópolis (SC), 29 nov 2007 [citado 22 mar 2019]. Disponível em: http://www.saude.sc.gov.br/index.php/legislacao/deliberacoes-cib

44. Ministério da Saúde (BR). Política Nacional de Vigilância em Saúde: Documento Base GT-PNVS (Portaria SVS nº 14, de 22/08/2013). Brasília (DF): Ministério da Saúde; 2014. p. 4.

45. Franco G No, Villardi JWR, Machado JMH, Souza MS, Brito IF, Santorum JA et al. Vigilância em Saúde brasileira: reflexões e contribuição ao debate da 1a Conferência Nacional de Vigilância em Saúde. Cien Saude Colet. 2017 out;22(10):3137-48. http://dx.doi.org/10.1590/1413-812320172210.18092017. PMid:29069171.

46. Conselho Federal de Enfermagem (BR). Brasil registra alta na mortalidade infantil pela 1ª vez desde 1990 [Internet]. 2018 jul 17 [citado 29 maio 2019]. Disponível em: http://www.cofen.gov.br/brasil-registra-alta-na-mortalidade-infantil-pela-1a-vez-desde-1990_64307.html

47. França EB, Lansky S, Rego MAS, Malta DC, França JS, Teixeira R et al. Principais causas da mortalidade na infância no Brasil, em 1990 e 2015: estimativas do estudo de Carga Global de Doença. Rev Bras Epidemiol. 2017 maio;20(1, Supl 1):46-60. http://dx.doi.org/10.1590/1980-5497201700050005. PMid:28658372.

48. Flôres GMS, Weigelt LD, Rezende MS, Telles R, Krug SBF. Gestão pública no SUS: considerações acerca do PMAQ-AB. Saúde Debate. 2018;42(116):237-47. http://dx.doi.org/10.1590/0103-1104201811619.

49. Branquinho ID, Lanza FM. Saúde da criança na atenção primária: evolução das políticas brasileiras e a atuação do enfermeiro. R Enferm Cent O Min. 2018;8:1-11. http://dx.doi.org/10.19175/recom.v8i0.2753.

50. Ministério da Saúde (BR). Política Nacional de Atenção Integral à Saúde da Criança: orientações para implementação. Brasília (DF): Ministério da Saúde; 2018: 180 p.