

## The integral child health care network in the Federal District – Brazil

Renilson Rehem de Souza (<https://orcid.org/0000-0003-3029-8031>)<sup>1</sup>

Martha Gonçalves Vieira (<https://orcid.org/0000-0002-0235-0384>)<sup>2</sup>

Cláudio José Ferreira Lima Júnior (<https://orcid.org/0000-0003-0941-3429>)<sup>2</sup>

**Abstract** *The National Policy for Integral Child-Health Care (PNAISC), established by Ordinance GM/MS No. 1,130, of August 5, 2015, covers child health care under an integral approach, and gathers actions in health care, promotion and prevention in seven strategic axes, across the different levels of care. The aim of this article is to report the development of health care in the Federal District, within the scope proposed by PNAISC and based on the guiding principles of the Unified Health System. The actions developed in each axis are described after the presentation of the assistance network of the Federal District State Health Secretariat (SHS/DF) and a brief history of child health care and its challenges, with the approach of the strategies developed for the establishment of a care network focused on integral child health care.*

**Key words** *Child, Adolescent, Public policies, Health care, Health services*

---

<sup>1</sup> Hospital da Criança de Brasília. SAIN Lote 4B, Asa Norte. 70071-900 Brasília DF Brasil.

[renilson.rehem@gmail.com](mailto:renilson.rehem@gmail.com)

<sup>2</sup> Secretaria de Saúde do Distrito Federal. Brasília DF Brasil.

## Introduction

There have been many reports in the specialized literature discussing health care models in general<sup>1-3</sup>. However, there have been few studies aimed at understanding and discussing the organization of the health system in the perspective of the integral child health care<sup>4</sup>. Considering the process of reorganization of the care network in the Federal District regarding child health, it is fitting to reflect on the evolution of the policies and the impacts of the experiences developed up to the present, in order to support the necessary future transformations. The aim of this study is to present a synthesis of the public policies that rule integral care in pediatrics in Brazil and a critical analysis of the structuring of pediatric care in the Federal District.

The Federal Constitution of 1988<sup>5</sup> brought benefits and advances in social rights, highlighting the creation of the Unified Health System (SUS). Article n. 196 states that *Health is a right of all and a duty of the State and shall be guaranteed by means of social and economic policies aimed at reducing the risk of illness and other hazards and at the universal and equal access to actions and services for its promotion, protection and recovery*. This constitutional guarantee of universal and equal access establishes a public health system for all, and not only for those most in need. It ends an era in which Brazilians were divided into classes of citizens regarding the right to health care, as those who were entitled to the National Institute of Medical Assistance and Social Security (INAMPS) and the poor population, without any rights.

The lawmakers pointed out the need for the development of Health Care Networks (Article 198 of the Constitution), establishing that public health actions and services are part of a regionalized and hierarchical network and constitute a single system, organized according to pre-established guidelines. They defined, as one of the guidelines, full service, with priority for preventive activities, without impairing assistance services. In addition to building a unified health system with universal health care access, it has ensured, throughout life cycles, the integral health care.

At the process of SUS implantation, the achieved advances in relation to the principle of universality are remarkable. However, the same cannot be said in relation to the principle of integrality. Perhaps, among the SUS principles and guidelines, the integrality is possibly the most

difficult one to be carried out, requiring a network-organized care that has Primary Care as a coordinator. In the Organic Law of Health (Law 8.080, dated of 09/19/1990), the meaning of *integrality of care* was detailed as a SUS principle, understood as *an articulated and continuous set of preventive and curative, individual and collective actions and services, required for each case at all levels of the system complexity*<sup>6</sup>.

Also, in the apparently contradictory development process, but capable of fostering creative and supportive processes, from the year 2007 the Ministry of Health (MoH) and the National Institute of Health of Women, Children and Adolescents Fernandes Figueira, of Fundação Osvaldo Cruz (IFF/FIOCRUZ), chose to start a joint work, in accordance with Article 227 of the Federal Constitution<sup>1</sup>, as well as the Child and Adolescent Statute of 1990<sup>7</sup>, aiming at the creation and implementation of a national policy focused on an integral child health care. This is based on the understanding promoted by the *Estratégia Brasileirinhas e Brasileirinhos Saudáveis* (Healthy *Brasileirinhas* and *Brasileirinhos* Strategy - EBBS), showing that healthy standards for life are built since the earliest days, with an early childhood that favors full child development<sup>8</sup>.

## Materials and methods

Developing an analysis of the specific historical trajectory of the development of policies for integral child health care in Brazil, the authors present a narrative review of the literature and legal milestones. They analyze the pediatric care in the Federal District during the reorganization process of the child health care at the district level, based on technical and institutional documents of the DF State Health Secretariat. The obtained results are analyzed, as well as the current limits and challenges. They finish with a critical analysis indicating opportunities for improvement.

Starting in 2011, during 3 years, 13 meetings and collective immersion in the topic, they brought together representatives from the Ministry of Health, States, the DF and Brazilian capitals who, supported by a collaborative methodology developed by EBBS, in partnership with the General Coordination of Child Health and Maternal Breastfeeding of the Ministry of Health (CGSCAM/MS) and other partners, in an intensive listening process, debates and deliberations, worked towards the development of the National Policy for Integral Child Health Care within the

scope of the Unified Health System – PNAISC/SUS – Ordinance GM MS N. 1,130, of August 5, 2015. As a referential milestone, it brings a set of programmatic and strategic actions for child development, organized in seven strategic axes<sup>9</sup>.

### **Integral Child Health Care from the perspective of the Health Care Networks**

The implementation of the PNAISC considers the context of the epidemiological evolution of pediatric health conditions, which, in Brazil, as in other developing countries, has a growing increase of chronic conditions, coexisting with external causes and infectious diseases. Chronic conditions require a health system design that, in the light of scientific evidence from countries that have walked this path (USA, Canada, UK, among others), responds better to the population needs if it longitudinally integrates the primary, secondary and tertiary care. This design is opposed to the current model established by SUS, which at the time was based on the care of acute conditions and, therefore, was episodic, fragmented and reactive. The experiences of countries that have developed health care networks disclose economies of scale, resource optimization, facilitated access, and qualitative improvements in the user's experience<sup>1</sup>.

The concept of Health Care Networks (RAS) is close to a century old, described in the Dawson Report of 1920, which had as essential points: the organization of care integrating preventive and curative medicine, the central role of the general practitioner, the gateway in primary care, the secondary care provided in outpatient units and the tertiary care. It was the basis for the implementation of the UK Health System almost 30 years later and a source of inspiration for the unified health systems of several countries<sup>10</sup>.

The Pan-American Health Organization has developed a document on integrated health service networks that critically reviews the fragmented systems and their causes. It conceptualizes the integrated systems of health services and identifies their different modalities, establishes their essential attributes, defines public policy instruments and institutional mechanisms to model them, and proposes a route for the implementation of these systems in the Region of the Americas<sup>11</sup>.

In Brazil, the Ministry of Health established the bases for adopting the RAS, defined the concept and principles, formulated a transition process through the integrated health care re-

gions and lines of care. The Ministry proposed the guidelines for their implementation, with the perspective that networks are the instrument that guarantees the right, increasing access and reducing inequalities<sup>1,2</sup>.

### **Integrity of care**

In order to discuss the Integral Child Health Care Network, we need to consider, in particular, the Integrity of Care. Among the many demands for the Brazilian Sanitary Reform, which was based on the criticism of practices, institutions and the organization of the health system, was the concept of integrity<sup>12,13</sup>.

Integrity is a noun that means “the gathering of all parts that form a whole; totality, completeness”. Incorporated into the system as a principle, the idea of Integrity is present at several levels of discussions and practices in the health area. It permeates the professionals' behavior, the relationships of these teams with the service network as a whole, the public policies and a system design prepared to meet the demands and needs of people.

Integrity, as an articulating principle in SUS, aims at the promotion of health and health care. For this principle to become a reality, a reorganization of the current assistance model is required. According to the constitutional text, improved and complemented by the Organic Law of Health, the health care provided by the SUS must cover both care or curative actions and, as a priority, health promotion and disease prevention activities<sup>6</sup>. Apparently, for the lawmakers, this whole concept would be constituted by segmented activities in preventive and care services. On the other hand, from the perspective of users, integral health care has often been associated with humanized, respectful, dignified, good quality and embracing care.

For Viegas & Penna<sup>14</sup>, integrity is a network of services with different levels of complexity and competences, where the integration between the actions at different levels is performed and meet an individual's full set of care demands. It is worth highlighting the decisive performance of the managers who organize the health services and establish communications favoring the integrity between the different levels of complexity and competences of a health service network.

The development of the integrity does not occur in only one place, either because the several types of health technologies aimed at improv-

ing and prolonging life are distributed in a wide range of services, or because improving living conditions is a task for an intersectoral effort<sup>15</sup>. For Reis and Andrade<sup>16</sup>, the organization and communication between services and integrality constitute a system that is integrated at all of its levels of complexity. Integration is understood as a service network that works by giving access conditions and providing solutions to the problems and to the risk factors that affect the quality of life of the population. It includes the communication between public and private services, as well as all the institutions<sup>15</sup>.

For Penello and Rosário<sup>17</sup>, the success of public policies in reducing poverty and penury, associated with the expansion of primary health care coverage, contributes to the improvement of children's health conditions. However, the integration of networked services is necessary to guarantee the integrality of health care.

The Federal District is undergoing a process of reorganization of the care model, aiming to organize the system following the Health Care Network logic, with the primary health care at the center, as coordinator of care and ruling the care network, following the model of the Family Health Strategy.

### **The integral child health care network**

The child health care is divided in the Federal District Public Network into 168 Basic Health Units (BHUs), 11 polyclinics, 3 Child Psychosocial Care Centers, 2 Special Rehabilitation Centers, 11 Dental Specialty Centers, one Childbirth Center, and 16 hospitals. There are 10 pediatric emergency and hospitalization services, 6 Intensive Care Units (ICUs) and 9 Neonatal Intermediate Care Units (NICUs) and 4 Pediatric Intensive Care Units (PICUs). Outpatient specialized care is carried out at the Hospital da Criança de Brasília José de Alencar (HCB), in the polyclinics and outpatient clinics of the health care network.

### **History**

#### **1990 -2009**

The Integral Child Health Care Program (PAISC) was implemented at the SHS-DF in 1994. PAISC was involved in the development of actions to promote, prevent and assist children's health, reduce morbidity and mortality, promote care access, equity and integrality. Basic health actions were developed in the 15 regional health centers, with emphasis on encouraging breast-

feeding, controlling and evaluating acute respiratory infections and diarrheal diseases, including oral rehydration therapy.

In the following decade, actions such as the Guthrie test, the Kangaroo Project, the Brazilian Breastfeeding Strategy (EAB) and death surveillance were incorporated. The uniformity of actions and protocols was sought in all BHUs, with monitoring of health indicators, at a time when infant mortality in DF was 22.1 (year: 1994). Since then, it has shown a decreasing trend (Graph 1).

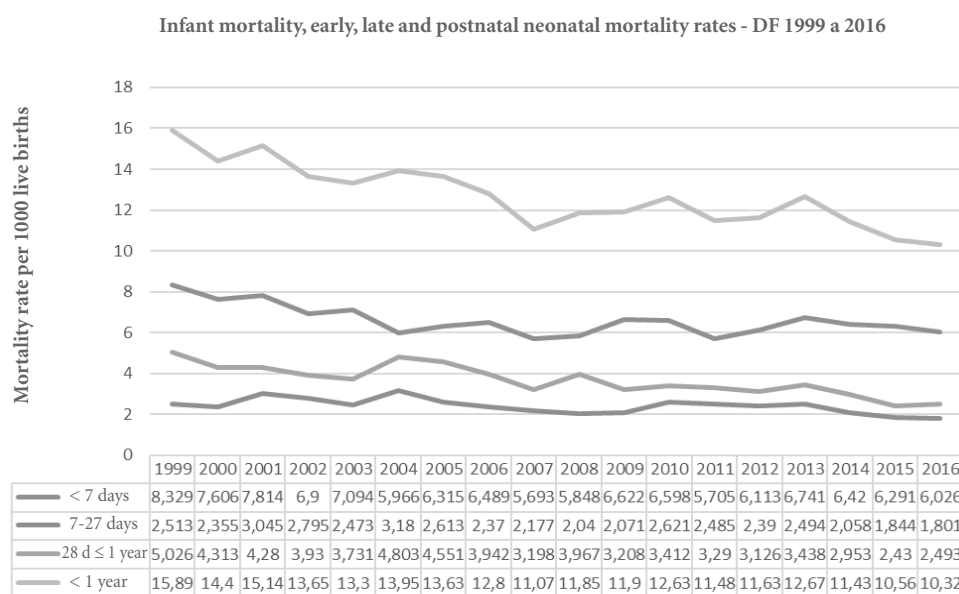
#### **2010-2015**

Hospital da Criança de Brasília José de Alencar (HCB) is the result of a society initiative through the Brazilian Association of Assistance to Families of Children with Cancer and Hemopathies that built it and equipped the first block of the building and donated it to the Government of the Federal District, becoming part of the public hospital network in the Federal District. It was inaugurated on November 21, 2011 and concentrated the specialized tertiary outpatient pediatric care of the network and onco-hematology hospitalization, through a management contract with the Institute of Childhood Cancer and Specialized Pediatrics (ICIPE).

On May 18, 2012, the Hospital Regional da Asa Sul was renamed "Hospital Materno Infantil de Brasília (HMIB)", and on April 17, 2018, it became the Referral Unit in the DF Health Network, consolidating its role as a referral hospital for women and children health care, especially in the areas of high risk obstetrics, human reproduction, neonatology, pediatric surgery, pediatric infectology and maternal and pediatric intensive care, as well as a 24-hour pediatric emergency.

In the second half of 2011, the DF, in line with the policies of the MoH and seeking to qualify care for women in the pregnancy-puerperal cycle and the child in the first two years of life, officially joined the Stork Network, instituted under the SUS by Ordinance GMS N. 1459, of June 24, 2011<sup>18</sup>. The priority actions included the implementation of the serological screening of pregnant women; the organization of several meetings (seminars, forums and workshops) for the promotion, awareness-raising and training of employees, with a focus on improving prenatal care, the delivery care model, and follow-up on child growth and development.

If, on the one hand, there were structuring actions in child health care, the years 2010-2015 witnessed a progressive decrease in the operation



**Graphic 1.** Infant mortality, early, late and postnatal neonatal mortality rates - DF 1999 a 2016.

Source: GIAS/SVS/SES/DF.

of pediatric emergencies, both in Emergency Care Units (UPAs) and in hospitals. The shortage of professionals in these services raised a warning sign, since it was already proven difficult the access to care under the spontaneous demand of children in Primary Health Care (PHC), where pediatricians treated a non-territorialized population under the logic of programmed demand according to a conventional model. In addition to this scenario of low territorial coverage of PHC, there was the difficulty in establishing the child population as a priority group, especially in the first years of life, by many Family Health Strategy (ESF) teams, as well as the persistent restriction on the care of children who, on spontaneous demand, sought assistance. The overcrowded pediatric emergencies, especially during periods of respiratory virus seasonality, started to overwhelm the services, with the impairment of treatment of severe or critical cases and the wearing down of long waiting hours for those with less severe conditions. In this context, the work environment became permeated by conflicting relationships and consequently unattractive to new pediatricians, newly graduates from local residency programs or other states, resulting in a lack of pediatricians for the emergency care of this age group<sup>19</sup>.

In 2010, there were 13 active pediatric hospital emergencies in the Federal District, some of

which were already facing difficulties to remain full operational due to the lack of professionals for the work shifts. With the adhesion to the Emergency Network in 2011, the DF inaugurated four Emergency Care Units – 24-h UPAs, and now has 17 care units for pediatric emergencies. However, within a short time, the workforce was lost due to the recurrent dismissals, retirements and low adhesion of new pediatricians to the civil servant positions, resulting in progressive inactivation of newly opened services. Between 2011 and 2016, all the pediatric urgency units and three hospital pediatric emergencies were closed, while other emergency units started to operate intermittently.

The shortage of pediatricians associated with the PHC low performance, both resulting from a fragmented and poorly managed care model, led to a scenario of deficient child health care, despite constant investments in health. The parents' pilgrimage in search of prompt care started to become a constant situation, leading to the overcrowding of the structured hospitals and the population's dissatisfaction, with negative repercussions in the media, control agencies and class entities. There was an increase in occurrence of sickness of emergency pediatricians, with leaves of absence and occupational restrictions, and increasing difficulty in getting professionals to stay, especially in vulnerable areas of the DF.

There was a clear imbalance regarding the distribution of the pediatric labor force in the SHS/DF services, with a higher concentration of pediatricians in the central area, closing of pediatric hospital beds in regional hospitals and low productivity and performance in PHC. Referrals for outpatient consultations in pediatric specialties became more frequent, with an exponential increase in the waiting time for consultations in these specialties, demonstrated by the outpatient regulation system.

#### **Neonatology and pediatric intensive care**

The first public neonatal ICU in the DF was inaugurated in 1986 at HMIB. The growth of this area of pediatric performance in the last two decades resulted in the majority presence of qualified neonatologists or those with practical experience working within the neonatal units. This movement improved neonatal care for high-risk newborns (NBs), but it brought difficulties in maintaining the treatment of usual-risk NBs by pediatricians, leading to judicial questioning by pediatricians who did not consider themselves qualified to be in the birth room. Since then, the calls for civil servant openings for pediatricians specify their presence in the delivery room and rooming-in care, but there is low adherence of these professionals to the civil servant career in the DF, resulting in the interruption in birth and delivery services in several public maternity hospitals in the DF, intermittently or for long periods, with a negative impact on the population.

The pediatric ICU care faces similar difficulties, resulting in a reduction of the implemented capacity of the public network for the child in need of intensive care. An increase in the waiting time for an ICU bed can be observed, with a severely-ill child remaining in pediatric emergency beds, contributing to the increase of the workload and the risk to the patients in these units.

#### **The integral child health care project (PNAISC-DF)**

From 2015 onward, the Sub-secretariat for Integral Health Care (SIS-DF) of the SHS-DF, with the intention of promoting the organization of actions and services for children's health care, promoted the discussion between the areas related to this topic at different levels of care, aiming at the integration of the several services as a way to qualify and improve child and adolescent care in the DF. After 10 months, these meetings culminated in the definition of a strategic project for the PNAISC implementation within the scope of SUS

in the Federal District (PNAISC-DF). At least one priority action, related to each of the seven strategic axes of this Policy, was defined: I - humanized and qualified care directed at pregnancy, delivery, birth and the newborn; II - breastfeeding and healthy complementary feeding; III - promotion and monitoring of growth and integral development; IV - integral care for children with diseases that are prevalent in childhood and those with chronic diseases; V - integral care for children in situations of violence, prevention of accidents and promotion of a peace culture; VI - health care of children with disabilities or in specific situations and vulnerability; and VII - surveillance and prevention of infant, fetal and maternal death.

#### **Axis I**

The Child's Health Care Manual, with norms and procedures for children's care within the scope of PHC, was published in 2006 as a guideline for professionals that deal with this population and the organization of services.

In line with the development of the PNAISC and as a strategy for the conception and organization of collective work in the health units, the SHS-DF published, in 2014, the health protocols for children, within the scope of PHC, and adolescents' health care, revised and adjusted in 2016. It stands out in this Axis the joint work of the *Grupo Condutor Central da Rede Cegonha e Regiões de Saúde do DF* for the implementation of the Safe hospital discharge (*Alta Segura*) of newborns from the maternity units, which includes scheduling an appointment for the NB in the BHU within the first week of life.

#### **Axis II**

The promotion, protection and support to breastfeeding in the SHS-DF services, and the establishment of healthy eating habits in childhood, was a commitment that was always evidenced in the care area. These actions aided the survival and full development of many children and have gained notoriety and a greater impact since 1986, with the formal organization of the district network of Human Milk Banks (HMBs-DF). The first HMB of the DF and the Midwest region was founded in 1978 at Hospital Regional de Taguatinga (HRT), in partnership with *Fundação Hospitalar do DF* with the Rotary Clube Taguatinga Norte. Currently, there are nine HMBs located in hospitals of the SHS-DF and two human milk collection units.

At-home milk collection began in 1988 and was strengthened through a partnership with the

DF Fire Brigade, which since 2010 has been supporting all HMBs. In addition to the continued support of civil society, the other factors corroborating the actions of this axis were: the use of a central telephone station, website and mobile application for breast milk donation, the definition of district legislation on breastfeeding and the establishment of commemorative dates, such as the Breast milk Donation Day and the Golden August month.

The PNAISC project has also envisioned in this area the renewal of the quality awards of the Baby Friendly Hospital Initiative (IHAC) of the Federal District, given by the Ministry of Health (MoH) to hospitals that comply with the 10 steps to breastfeeding success, established by the United Nations Children's Fund (UNICEF) and the World Health Organization (WHO), in addition to the respectful and humanized care of women during prepartum, delivery and postpartum, ensuring free access and 24-hour permanence with the hospitalized new born to both the mother and father, and the compliance with the Brazilian Standard for the Marketing of Foods for Infants and Young Children<sup>20</sup>.

Since 1992, when the HRT earned the award (the fourth hospital in the country to earn it), other regional hospitals (HR) of the SHS-DF integrated the IHAC, as follows: HR of Sobradinho (1995), HMIB, HR of Ceilândia and Planaltina (1996), HR of Gama and Brazilândia (1998), HR of Asa Norte (1999) and Unidade Mista de São Sebastião/Casa de Parto - 2004.

### Axis III

The change in the PHC of the DF, with the adoption of the Family Health Strategy (FHS) as a model of care and the expansion of its territorial coverage, shows the concern to ensure the full development of all children, especially in early childhood. However, differentiated access to specialized resources is necessary to consolidate the integrality of the care provided to children and adolescents.

Therefore, there was a reorganization of health practices for this population at the secondary level, with the implementation of Polyclinics – a process still undergoing consolidation and maturation of the involved actors (users, workers and managers), through the communication between the network care points. Based on discussions with the team involved in the PNAISC-DF project, seven Technical Notes were published providing elements and instructions on the clinical conditions and criteria to be ob-

served for the referral of children and adolescents from PHC to the pediatric specialties in the Polyclinics. Moreover, the Protocol of Embrace and Risk Classification in Pediatric Urgency and Emergency Fixed Units of the SHS/DF was developed and published, and the implementation started with the training of the professionals working in the pediatric emergency units of the network.

### Axis IV

Since 1996, SES-DF has trained professionals to systematize care for the child population in the Integrated Care of Prevalent Childhood Illness (AIDPI)<sup>21</sup> strategy. In partnership with the General Coordination of Child Health of the MoH, this initiative was resumed in 2018 with the formation of a group of multipliers of the updated version of the strategy, which took the AIDPI workshops to the FHS teams of the DF health regions, seeking to improve health actions and to reduce child morbimortality.

Another important action in this axis is the inauguration, in 2018, of Wing II of the Children's Hospital of Brasília, which brought significant increase in pediatric care capacity of high and medium complexity. The hospital adds 202 beds to the SHS-DF hospital network, with 60 clinical beds, 60 surgical beds, 38 pediatric ICU beds, 28 onco-hematology beds and 6 palliative care beds.

### Axis V

Following the publication by the MoH of the Line of Care for Integral Health Care of Children, Adolescents and their Families in Situations of Violence in 2010, the technical area of child and adolescent health, in partnership with the Center of Studies and Programs in Care and Violence Surveillance of the SHS-DF, an intersectoral work was started for the implementation of this Line of Care for network coverage in the territory, involving health teams and managers, carrying out specific training for health professionals and including the topic into the School Health Program actions.

In 2016, a partnership between the SHS-DF and the United Nations Population Fund (UNFPA) developed strategies to improve the adolescents' health care in the network facilities. After holding meetings with representatives of a referral service for adolescents (Adolescentro-DF), a consultative committee of the Council for the Rights of Children and Adolescents of the DF and a group of adolescents living with HIV/

AIDS, workshops were carried out with professionals and managers to create a situational diagnosis, discuss the challenges and possible solutions regarding adolescent health care. Subsequently, a partnership was established with the Secretariat of Policies for Children, Adolescents and Youth and, in 2018, a notice was published on the inclusion of a quality award to be added to the health services, which were aimed at services for adolescents, called *Chega Mais* (Come closer). Twenty-six services were enrolled, and after evaluation regarding the embracement and integral approach to adolescent health, 19 received the *Chega Mais* award.

#### Axis VI

At the beginning of the 1990s, the neonatal screening collection through biological samples (“Guthrie test”) was implemented in the Federal District, with a TSH test (screening for congenital hypothyroidism), followed by the screening for phenylketonuria. The screening for hemoglobinopathies was included in 2006, and from 2011 onward, it started to include congenital adrenal hyperplasia, cystic fibrosis, biotinidase deficiency, glucose-6-phosphate dehydrogenase deficiency, galactosemia and other inborn errors of metabolism. In May 2012, screening for congenital toxoplasmosis was also included. In 2012, the request was formalized with the MoH for the qualification of phase IV of the National Neonatal Screening Program, followed by the accreditation of HCB in 2013. The newborn hearing screening (NHS) in the Federal District started in October 2009, after Resolution n. 59 of 04/11/2008 of the DF Health Council (CSDF). It was started on a selective basis for newborns at risk for hearing loss, but from August 2013 onward, it became universally available. With the installation of the equipment for brainstem auditory evoked potential (BAEP) – screening – in 5 hospitals, the DF was able to comply with the protocol suggested by the Ministry of Health. The episodic management of the program helps in the active search and monitoring of the evasion of children referred for audiological diagnosis. The present challenge is to ensure the monitoring and verification of hearing and language development milestones (WHO, 2006) in newborns and infants with a Risk Indicator for Hearing Loss (RIHL) and have achieved satisfactory results in NHS. The red reflex test was implemented in the maternity hospitals and included in the PHC scope in 2013, as well as the test for early diagnosis of critical congenital heart disease through

pulse oximetry in maternity wards. Based on the PNAISC-DF project, a technical area was established within the SHS-DF, with the attribution of organizing, managing and monitoring the neonatal screening programs developed by the SHS-DF.

#### Axis VII

In the last four decades, the DF infant mortality coefficient was monitored, subsidizing actions related to the management process and contributing to health care. Since the availability of the Mortality Information System (SIM) and the Information System on Live Births (SINASC) by the MoH, health care and surveillance have been joined with the formation and institutionalization of technical committees for the prevention and control of fetal death and, in health regions with a heterogeneous composition, with representatives of care, surveillance and management. The broad and episodic dissemination of the indicators, with follow-up of the technical areas and managers and the continuous training of care professionals on the related topics, contributed to the improvement of the infant death surveillance process and a significant increase in the percentage of investigated infant deaths, as shown in Table 1.

The retrospective analysis of the infant mortality behavior, without losing the focus of the present time, shows that the majority of infant deaths in the first year of life occurs due to reasons considered avoidable and are related to perinatal conditions, as shown in Table 2.

### Discussion and conclusion

The Federal District, due to its recent constitution (1960) and its hybrid conformation of both state and municipality, had its health system structured in a pyramidal manner, based on the Health Centers and Regional Hospitals and having Hospital de Base as its main reference, all related to the government. The huge transformations that Brazil has undergone throughout this half century has also have an impact on health, both in the nosological profile and regarding the health system models or organization possibilities.

For the implementation of the comprehensive child health care policy in the Federal District, some strategic actions were chosen, of which development will result, in addition to the integration of levels and points of care, in the qualifi-



cation and improvement of care. There are many challenges that can be overcome by the continuity of actions that structure the gradual and constant advance towards an organized and integrated network service, focused on the needs of the SUS user population in the Federal District. The model to be consolidated is a strong and qualified primary care, which acts as the network coordinator, complemented by a specialized outpatient care and a hospital network that ensure the provision of quality care for all children, adolescents and

their families. The objective of this effort was to create a Comprehensive Child Health Care Network in order to update the organization of the care points, aiming at better health outcomes and impact on this population. Among the critical points, one can identify the extended deadline for the development of the political strategy and the beginning of its performance in the final period of the government, especially considering the low coverage of the Family Health Strategy that existed until then.

**Table 1.** Investigation of infant death by year of occurrence - DF, 2009 to 2017\*.

Year of Death	% Investigated
2009	10.3
2010	47.0
2011	77.4
2012	84.6
2013	93.3
2014	94.1
2015	92.6
2016	96.0
2017*	95.3

Source: GIAS/SVS/SES/DF.

(\*) Preliminary data subject to review.

## Collaborations

RR Souza, MG Vieira and CJF Lima Júnior contributed equally to the study design, writing and critical review and approved the version of the manuscript to be published.

**Table 2.** Causes of infant mortality in the DF, 2009 to 2017\*.

Causes	2009	2010	2011	2012	2013	2014	2015	2016	2017*
01 Perinatal conditions	293	311	294	303	334	301	304	296	268
02 Congenital malformations, deformities and chromosomal abnormalities	148	162	125	120	157	136	127	93	155
03 External causes (accidents/violence)	21	15	22	19	20	14	8	10	13
04 Respiratory tract diseases	15	9	22	21	15	19	23	11	11
05 Infectious and parasitic diseases	13	23	7	18	15	13	12	15	17
06 Other causes of death	32	39	29	26	23	28	13	22	28
Total	522	559	499	507	564	511	487	447	492

Source: GIAS/SVS/SES/DF.

(\*) Preliminary data subject to review.

## References

- Mendes EV. *As redes de atenção à saúde*. 2ª ed. Brasília: Organização Pan-Americana em Saúde; 2011.
- Kuschmir R, Chorny AH. Redes de atenção à saúde: contextualizando o debate. *Cien Saude Colet* 2010; 15(5):2307-2316.
- Organização Pan-Americana da Saúde (OPAS). *A atenção à saúde coordenada pela APS: construindo as redes de atenção no SUS: contribuições para o debate*. Brasília: OPAS; 2011.
- Santos NCCB, Vaz EMC, Nogueira JA, Toso BRGO, Collet C, Reichert APS. Presença e extensão dos atributos de atenção primária à saúde da criança em distintos modelos de cuidado. *Cad Saude Publica* 2018; 34(1):1-12.
- Brasil. Constituição (1988). *Constituição da República Federativa do Brasil*. Brasília: Senado; 1988.
- Brasil. Lei n. 8.080, de 19 de setembro de 1990. Dispõe sobre as condições para a promoção, proteção e recuperação da saúde, a organização e o funcionamento dos serviços correspondentes e dá outras providências. *Diário Oficial da União* 1990; 20 set.
- Brasil. Lei n. 8.069, de 13 de julho de 1990. Dispõe sobre o Estatuto da Criança e do Adolescente e dá outras providências. *Diário Oficial da União* 1990; 16 jul.
- Saúde e infância: a EBBS e a construção da PNAISC - conceitos e experiências [editorial]. *Divulgação em Saúde para Debate* 2006; 53:3-5.
- Brasil. Ministério da Saúde (MS). Portaria nº 1.130, de 5 de agosto de 2015. Institui a Política Nacional de Atenção Integral à Saúde da Criança (PNAISC) no âmbito do Sistema Único de Saúde (SUS). *Diário Oficial da União* 2015; 6 ago.
- Dawson B. Interim report on the future provision of medical and allied services 1920. Ministry of Health. [acessado 2019 Mar 27]. Disponível em: <http://www.nhshistory.net/Dawson%20report.html>
- Organização Pan-Americana da Saúde (OPAS). Inovação nos sistemas logísticos: resultados do laboratório de inovação sobre redes integradas de atenção à saúde baseadas na APS. Brasília: OPAS, OMS; 2010.
- Silva FCS. O princípio da integralidade e os desafios de sua aplicação em saúde coletiva. *Rev. Saúde e Desenvolvimento* 2015; 7(4):94-107.
- Furtado MCC, Silva LCT, Mello DF, Lima RAG, Petri MD, Rosário MM. A integralidade da assistência à criança na percepção do aluno de graduação em enfermagem. *Rev. Bras. Enferm.* 2012; 65(1):56-64.
- Viegas SMF, Penna CMM. O SUS é universal, mas vivemos de cotas. *Cien Saude Colet* 2013; 18(1):181-190.
- Fracolli LA, Zoboli ELP, Granja GF, Ermel RC. Conceito e prática da integralidade na atenção básica: a percepção das enfermeiras. *Rev. esc. enferm. USP* 2011; 45(5):1135-1141
- Reis CB, Andrade SMO. Representações sociais das enfermeiras sobre a integralidade na assistência à saúde da mulher na rede básica. *Cien Saude Colet* 2008; 13(1):61-70.
- Penello LM, Rosario SE. Estratégia Brasileirinhas e Brasileirinhos Saudáveis (EBBS): sobre as razões e os afetos deste percurso estratégico em defesa de uma Política Nacional de Atenção Integral à Saúde da Criança. *Divulgação em Saúde para Debate* 2016; 53:39-56.
- Distrito Federal. Secretaria de Saúde (SS). *Avaliação da qualidade da atenção primária à saúde da criança no Distrito Federal, 2013*. Brasília: SS; 2014.
- Brasil. Ministério da Saúde (MS). Portaria nº 1.459, de 24 de Junho de 2011. Institui, no âmbito do Sistema Único de Saúde – SUS – a Rede Cegonha. *Diário Oficial da União* 2011; 27 jun.
- Brasil. Ministério da Saúde (MS). Norma Brasileira de Comercialização de Alimentos para Lactentes e Crianças de Primeira Infância, Bicos, Chupetas e Mamadeiras. *Diário Oficial da União* 2001; 9 nov.
- Brasil. Ministério da Saúde (MS). *Manual Aidi Criança: 2 meses a 5 anos*. Brasília: MS, OPAS, UNICEF; 2017.

---

Article submitted 29/11/2018

Approved 06/02/2019

Final version submitted 03/04/2019