

The Close Relationship between Health Actions and Peacebuilding for the “Bien-Vivir” of Communities Affected by Armed Conflict in Colombia

Lina González (✉ lgonzalez@saldarriagaconcha.org)

Fundación Saldarriaga Concha

Andrés Duarte

Pontificia Universidad Javeriana

Jenny Muñoz

Fundación Saldarriaga Concha

Oscar Gómez

Fundación Saldarriaga Concha

Camila Castellanos

Fundación Saldarriaga Concha

Virginia Cuevas

Pontificia Universidad Javeriana

Carlos Gómez-Restrepo


Pontificia Universidad Javeriana

Research Article

Keywords: Armed Conflict, Bien-Vivir, Community, Comprehensive Health Care Routes, Mixed Study, Peacebuilding Health Interventions.

Posted Date: March 21st, 2023

DOI: <https://doi.org/10.21203/rs.3.rs-2702137/v1>

License:   This work is licensed under a Creative Commons Attribution 4.0 International License. [Read Full License](#)

Abstract

Background: This study aims to present the design of a proposal for implementing the Comprehensive Health Care Routes in the municipality of Vista Hermosa (Meta, Colombia). We are trying to obtain an accurate and broad view of the health context in the municipality; identify the health assets, problems, and needs, as well as the enablers and barriers for implementing RIAS; and draft a series of recommendations for the implementation of the RIAS. We developed the fieldwork with people living in the urban area of Vista Hermosa and the rural settlement of Santo Domingo.

Methods: We developed this quasiexperimental study with quantitative and qualitative methods in four phases. First, we identified the area and worked on the bases. Second, we conducted community-based research to characterize the population; identify health beliefs, values, and needs, as well as enablers and barriers to accessing the health system; and evaluate the implementation of the RIAS for Health Promotion and Maintenance and the RIAS for Maternal-Perinatal Health in the municipality. Third, we designed a methodology for implementing the RIAS and developed six health interventions with their respective deliverables. Fourth, we transferred the constructed knowledge to the local community, the Health Care Talent, and the government authorities in Vista Hermosa.

Results: We made a diagnosis of the health of the residents of Vista Hermosa and specifically of the study participants based on the RIAS for Health Promotion and Maintenance and the RIAS for Maternal-Perinatal Health. We also developed a compendium of their values and beliefs about health, grouped into five categories: health and disease processes; health, body, and territory; health care; care networks; and barriers to access. Finally, we mapped the municipality's capacity to implement the RIAS and divided it into three categories: key actors, resources, and facilitators.

Discussion: This study made essential contributions in three areas: a) the communities in the urban areas of Vista Hermosa and Santo Domingo; b) the ongoing implementation of the RIAS in Vista Hermosa; and c) the field of research on peacebuilding health interventions. Finally, we identified challenges and limitations that may affect the implementation of the RIAS, as well as some recommendations to address the latter.

Background

Colombia has high levels of inequality and injustice at the economic, cultural, environmental, educational, occupational, social, and health levels, which influence the social determinants and the development of disease [1, 2]. Together with homicide and other forms of violence, they are the leading causes of preventable mortality and morbidity [3]. Law 1751 of 2015 and the Comprehensive Health Care Policy (PAIS, by its Spanish acronym) provided a framework to strengthen intersectoral articulation, positively impact the social determinants of health, and transform the institutional model into a health care system focused on the population and its family and community relationships [4, 5]. The Comprehensive Health Care Model and the Comprehensive Health Care Routes (RIAS, by its acronym in Spanish) are central to PAIS. The first is relevant because it prioritizes the population, their well-being, and their development without discrimination. The second are tools that aim to provide comprehensive health care by intervening at the individual, family, and community levels regarding prevention, diagnosis, treatment, rehabilitation, and palliation. The aim is to ensure the necessary conditions to provide comprehensive health care. For this reason, competent bodies are trained in health actions to articulate individual and collective interventions in territories and among different population groups [6, 7].

In 2016, the national government and the former Revolutionary Armed Forces of Colombia - Popular Army (FARC-EP, by its Spanish acronym) signed the Final Peace Agreement to end more than fifty years of armed conflict. One of its pillars is the National Plan for Rural Health (NPRH), which aims to bring health services closer to the grassroots, strengthen the infrastructure and quality of the public network in rural areas, and improve the relevance of service delivery [8]. They have also prioritized the 170 municipalities most affected by violence during the armed conflict to promote a comprehensive transformation of rural areas over ten years through the Territorial-based Approach Development Programs (PDET, by its acronym in Spanish) [9]. In Colombia, some analyses have shown a significant reduction in social and health inequalities because of the Peace Agreement, pointing to a positive effect of the de-escalation of the internal armed conflict since the beginning of the process [10]. There is a link between these outcomes and the social determinants of health. However, some researchers have noted the prevalence of socioeconomic inequalities, which may explain the delayed impact of the war on the health of communities throughout the country [11]. It is crucial to highlight the persistence of mental health problems and disorders that have affected all levels of Colombian society, those that are a direct result of frontal exposure to violence and those that are indirect effects of the political, social, and cultural consequences of the war [12, 13].

Ensuring human rights is one of the pillars of peacebuilding and peace consolidation [14]. Olaya states that public health has an enduring commitment to peace. It is a fundamental human right and a prerequisite for achieving welfare goals. Therefore, there cannot be a satisfactory level of health when threats and aggression hang over populations. Peace is not only the laying down of arms and the cessation of hostilities; it is also a condition for achieving health. It is not only through public health that we expect to achieve a complete state of physical, mental, and social health; every effort to reach new pacts of coexistence, every path that we open toward reconciliation, extends the necessary scenario to achieve the best possible quality of life [15]. A critical program in the Colombian context is Health for Peace, led by the Pan American Health Organization, the International Organization for Migration, and the Ministry of Health and Social Security. It is based on the universal recognition of health as essential in improving understanding, solidarity, and peace among people [16]. The program, therefore, aims to build local capacity to improve access to comprehensive primary health care (PHC) services, focusing on sexual and reproductive rights, mental health, prevention of psychoactive substance abuse, child health, and nutrition [17]. Although the program is framed around the social determinants of health and seeks to expand the role of health systems and practitioners as guardians and promoters of peace scenarios, it still has some weaknesses related to the same structures that feed the perpetuation of conflict. In particular, the gender gap, linked to the ease with which armed conflict can be initiated and exacerbated, has been a neglected area of study, with no evidence of its impact on the governance, implementation, and outcomes of specific peacebuilding interventions in the context of health systems [18].

Vista Hermosa is a municipality located southwest of Meta (Colombia). It has a total area of 4,084 km², of which 25% is urban and 75% rural, including 47 rural settlements and two peasant reserves [19]. Its history links to the armed conflict due to the presence of illegal groups such as the former FARC and paramilitaries, coca cultivation and processing, and irregular land appropriation over decades. It was the municipality with the highest number of anti-personnel mines and victims of anti-personnel mines between 2000 and 2012 [20]. The absence or weakness of the state, the geographical dispersion of the population, the limited resources for health care, the strong and widespread presence of armed groups fighting for control of the territory, the conditions of the dispersed rural population, and the direct and indirect effects of the armed conflict on its inhabitants present considerable challenges for the implementation of health policies [21]. For this reason, it was one of the municipalities selected to implement the PDET and the setting for this study.

Methods

This study is quasiexperimental, in which we used mixed methods. By incorporating quantitative and qualitative strategies, it aims to combine the strengths of both research approaches to obtain complementary results, gain a comprehensive understanding of the phenomenon, contrast and synthesize the results [22], and address common concerns such as the meaning and interpretation of the results and the identification of trends and variations in the phenomenon under study [23]. We designed an intervention proposal to implement the RIAS for Health Promotion and Maintenance and the RIAS for Maternal-Perinatal Health to contribute to peacebuilding in a challenging scenario. Therefore, we conducted a mixed-methods study in four phases. We focused on people living in the urban area of Vista Hermosa and in Santo Domingo, one of the rural settlements with the highest population concentration in the municipality. In addition, there are no ongoing health promotion programs in Santo Domingo, nor is there a presence of national and international organizations working on peacebuilding health interventions.

Phase 1. Territorial recognition and bases

In this phase, we consulted and obtained a bibliography to characterize the territory based on the following four aspects:

1. Geographical and administrative description of Vista Hermosa and Santo Domingo, the evolution of the armed conflict in the region, and its impact on rural health.
2. Demography and health, for which we reviewed topics such as natality, mortality, morbidity, disability, and infections through COVID-19.
3. Resources for developing healthy lifestyles, such as physical activity and exercise, nutrition and beneficial habits, and recreational activities to be carried out at the community level.
4. Status of the implementation of the Peace Agreement in the municipality.

We also studied the normative framework for implementing the RIAS in Vista Hermosa, specifically, the RIAS for Health Promotion and Maintenance and the RIAS for Maternal-Perinatal Health. In addition, we analyzed the territory based on the model of social determinants of health [24], so we identified the structural determinants (stratification or social position, living conditions, and population with a differential approach) and the intermediary and personal determinants (geography and access, social actors/cohesion, demography and health, and health system).

As a result, we drew up a map of the actors, organizations, and institutions working in the health field in the urban area of Vista Hermosa and Santo Domingo, as well as an inventory of the capacity of the local authorities to implement the RIAS in the municipality. In addition, we assessed the coverage of the social security system and identified the administrative, economic, and cultural barriers determining the quality and delivery of services that affect the implementation of the RIAS.

Phase 2. Community-based research and identification of assets and needs

After characterizing the community, we assessed the health situation, particularly the interventions for implementing the RIAS for Health Promotion and Maintenance and the RIAS for Maternal-Perinatal Health. We evaluated the impact of these interventions on the people living in the urban area of Vista Hermosa and Santo Domingo.

At the quantitative level, we formulated a quasiexperimental design with a before and after evaluation. We calculated the sample size by comparing the medians in matched groups using Epidat 4.2, an epidemiological data analysis program. Due to a lack of statistics, we need data on implementing the RIAS in the PDET municipalities. Therefore, we calculated the sample size by assuming a statistically significant median difference of 0.2 to detect the effects of the intervention on the variables of interest (self-perceived level of health). We defined a reliability of 95%, a potency of 80%, and a standard deviation for the differences between pairs of observations of 1.0. Thus, the initial sample to establish the baseline and final line of the study for the statistical and additional populations was 219 people (199 = statistical population, 11 = pregnant women, and 9 = postpartum women). We described the variables according to their nature, using frequencies and percentages for categorical variables.

For the continuous variables, we reported the mean and standard or median deviation and the interquartile range according to the results of the Shapiro-Wilk test to assess normality [25]. Four months later, we used the Wilcoxon signed-rank test [26] to evaluate any change in the distribution of the assigned health thermometer score and body mass index (BMI) after the intervention. We performed a subanalysis according to the baseline quartile distribution of the designated health thermometer score. We assessed the change in frequency of self-perceived health and satisfaction with health services reported by informants after the intervention. For this, we used the McNemar test [26]. We evaluated all hypothesis tests at a 5% level of significance.

Initially, we faced significant obstacles. The COVID-19 pandemic delayed the timetable for this study. We had to contact people directly, but we could not go to Vista Hermosa because of the social distance measures and the movement restrictions. In addition, the national social uprisings that began in April 2021 made access difficult. Finally, the winter season caused disturbances on the roads and hindered the transit of people. Despite these challenges, we carried out three surveys: the first collected personal and sociodemographic data, housing conditions, and the relationship of the people as health system users. We used the National Survey on the Evaluation of Services Delivered by the Health Promoting Entities (EPS, by its Spanish acronym) [27]. Second, we assessed the statistical population to determine their clinical characteristics and verify the development of tasks to implement the RIAS for promoting and maintaining adult health. The third reviewed the assignments for implementing the RIAS for Maternal-Perinatal Health, considering the stages of pregnancy, the postnatal period, and neonatal care. After four months, we applied the same instruments to the original informants to assess any changes in the variables of interest. We stored the data in the web-based Research Electronic Data Capture (REDCap) platform, which we adjusted and analyzed in Microsoft Excel.

We based our qualitative research on the social determinants of health model [24], the social-ecological model of health [28], and the health belief model [29]. We used the convenience sampling strategy to select the sample [30] because it turns to places, contexts, or people in direct contact with the phenomenon. This type of sampling provided relevant data to build or adapt the thematic clusters or constructs and the question guide we followed when facilitating the focus groups and the social cartography, allowing us to know and frame a comprehensive knowledge of the territories and the bodies on health [31]. We then conducted semistructured interviews with relevant actors who played an active role at the institutional and community levels. We asked them about implementing the RIAS, their beliefs and values regarding health, and the links between health and peacebuilding. In summary, we undertook the following actions:

1. Recognition of the geographical conditions and first-hand access to the community.
2. A diagnosis of the local health context.
3. A compendium of the informants' values and beliefs about health.

4. Recognition of the barriers and enablers to the implementation of the RIAS, as well as the health needs and risks.
5. A map of resources to ensure internet connectivity throughout the municipality.
6. Selection of working methods to adapt the RIAS to respond to the local context.

Phase 3. Intersectoral articulation and health interventions

The community-based research and bases allowed us to identify the historical, social, economic, and cultural conditions and the quality and coverage of health care in the municipality. A fundamental action in designing the intervention methodology to implement the RIAS was to promote collaboration between authorities and agencies at the local and national levels, international organizations, and interagency initiatives that were leading significant and ongoing processes in the field of health. Strengthening these relationships was strategic to ensure the continuity of practical and positive projects at the grassroots level and to formulate interventions that could address the structural causes that affect people's health and well-being. A clear example was the Health for Peace: Strengthening Communities, which aimed to build local capacity to improve access to comprehensive PHC services in priority areas of the country severely affected by the armed conflict.

Identifying health needs and risks allowed us to propose six health interventions:

1. Training on PHC issues for the Health Care Talent (HCT) of the Vista Hermosa Health Care Center to strengthen their decision-making capacity and assertiveness, as well as the quality of patient care and compliance with current health policies. Professors from the Hospital Universitario San Ignacio (HUSI, by its Spanish acronym) and the Pontificia Universidad Javeriana (PUJ, by its Spanish acronym) conducted eighteen virtual and face-to-face training sessions.
2. Training sessions for the Plan of Territorial Health (PTH) staff and the Plan of Collective Interventions (PCI) on implementing the RIAS, focusing on the community level. In addition, we formed working groups to design tools to facilitate the implementation of the RIAS at the community level and the audit to evaluate the medical records and the clinics of the Health Provider Institution (HPI).
3. Health training for grassroots health leaders on the General System of Social Security Health, the PAIS, the RIAS, prehospital care, and pediatrics. The trainers were members of the project field team and the HUSI.
4. Health training for the community on health promotion and maintenance and sexual and reproductive health with a focus on the RIAS. In addition, we trained a group of actors from the commercial and tourism sectors on health prevention and promotion (P&P), nutrition, and environmental hazards.
5. Development of an educational primer for the training of the HCT on rural health by some staff of the PUJ and the Fundación Saldarriaga Concha (FSC). These include the health regulations of the Ministry of Health and Social Security, a set of clinical practice guidelines used at the national level, and some HUSI care guidelines.
6. Strengthening the municipal health network by characterizing the health needs of the population, providing tools to enhance the decision-making process and the decision-making capacity of the Vista Hermosa Health Care Center, strengthening community health networks, and drafting a series of recommendations on peacebuilding health interventions for the design of the future Municipal Health Plan. These actions aim to promote a re-encounter between institutions and users to improve their relationship and to generate mechanisms and measures that guarantee peacebuilding and the health rights of the population.

Phase 4. Transfer of constructed knowledge to the local community

This study aims to ensure the social appropriation of the knowledge built cooperatively. To this end, we will present the results and the following products to the community and local authorities: a) a prototype intervention methodology for the implementation of the RIAS for Health Promotion and Maintenance and the RIAS for Maternal-Perinatal Health in the urban area of Vista Hermosa and Santo Domingo; b) an infographic presenting the intervention methodology in eight steps; c) a strategy for the continuous training of human talent; and d) an educational primer for the training of the HCT in rural health.

Ethical Considerations

The Research and Institutional Ethics Committee of the Faculty of Medicine of the PUJ evaluated and approved this study in an ordinary meeting on 09/05/2022 under minute number 08/2019. The committee concluded that the team members were suitable to develop the study, that the project was relevant, and that it met the methodological rigor and ethical standards required for its conduct, with a favorable risk-benefit ratio for the participants. We conducted the study under Resolution 8430 of 1993, which regulates health research in Colombia.

The study followed the ethical principles presented in the Declaration of Helsinki to protect the freedom of the eligible informants to decide to participate or not continue in the study, so we informed them of all the risks and benefits of their participation in clear and straightforward language. A team member with no hierarchical or subordinate relationship with the subjects provided the information voluntarily. All participants signed a consent form before using their data, explaining the nature of the study and the use of the information obtained from their participation. We have always maintained confidentiality and will only use the information obtained for dissemination. Therefore, we will preserve the anonymity of the data and the impossibility of identifying the participants in any report derived from the research results. We will use personal data under the Personal Data Protection Act and the Personal Data Protection Policy of the FSC and the PUJ, available on the organization's website and at the interested party's request through any means of contact.

We have taken all the measures to minimize potential risks during the development of the study. This is a low-risk study because we collected data using noninvasive equipment and methods, did not take samples, or did not extract biological material. This intervention did not pose any psychosocial risk to the participants.

Results

Diagnosis

In 2021, 16,790 inhabitants in Vista Hermosa were registered, of which 47% were women, and 53% were men. Specifically, the rural settlement of Santo Domingo had approximately 310 inhabitants. There were many children, adolescents, and young people, specifically those between 5 and 19 years old. In contrast, there was a decrease in the population of children under five years old. There was an increase in people between 35 and 74 years old, specifically in women between 35 and 54 years old. In 2020, there were 12,886 victims of forced displacement, and the most affected were individuals between 10 and 24 years old. In 2019, there were 66 international migrants, mainly from Venezuela, almost 20 and 29 years old, and 68.2% were women [32].

In general, 68% of the municipality's population worked, 92% had informal jobs, and 4% of the children performed some work. Economic activities corresponded to the primary sector of the economy: agriculture, small-scale cattle and sheep rearing, and pig and fish rearing. Regarding education, 18% of the households had at least one illiterate

member. Primary education coverage was 78%, and secondary education coverage was lower (50%) [33]. The socioeconomic level of the majority of the population was low: the percentage of unmet basic needs (UBN) in the urban center was 24%, while the UBN in rural and dispersed rural areas was 44% [34]. In terms of living conditions by the environment, electricity coverage was complete in the urban area and 52% in the rural settlements; water coverage was 96% in the urban area, and 30% in the rural area; and sewerage coverage was 95% in the urban area and 13% in the rural area. There was an extension of 813 linear meters of rainwater drainage. The sewage treatment plant was not operating because it collapsed, so the final disposal occurred directly in the Acacias and Jamuco streams [33].

In 2019, the gross birth rate in the municipality was 15.8 births per 1,000 inhabitants. The fertility rate was 2.3 births per 1,000 women aged 10–14 and 95.6 births per 1,000 women aged 15–19. The gross mortality rate was 4.8 deaths per 1,000 inhabitants from all causes. The neonatal mortality rate was 7.1 per 1,000 live births. The leading cause of death in children under one year of age was diseases of the perinatal period, with a rate of 14.7 per 1,000 newborns. The infant mortality rate was 22.1 deaths per 1,000 live births. Deaths of children aged 1–4 due to endocrine, nutritional, and metabolic diseases were reported at 83.3 per 1,000 newborns. In 2020, nontransmissible diseases such as cardiovascular diseases (20%) and genitourinary diseases (17%) were the main reason for consultations (6,926). When analyzed by sex, cardiovascular diseases were the main reason for consultations for both men and women. Neuropsychiatric diseases followed them in men, and genitourinary diseases in women. The second reason for consulting a doctor was syndromic diagnostic tests and undefined signs and symptoms (2,356). Nutritionally transmissible conditions had 929 consultations; the leading causes were parasitic diseases (64%). Maternal-perinatal states had 883 care visits, and their leading causes were maternal conditions (98%). Six hundred twelve mental health care visits were registered in 2020: women requested 53% of the consultations; adults aged 27–59 consulted most (185), followed by young people aged 19–26 (157). A total of 595 people with disabilities were identified in 2020: 61% were men, and almost all of them were over 80 years old. Regarding the type of disability, 57% had a limitation of the movement of the hands, arms, and legs [33].

In this study, we conducted surveys with a sample of 219 informants aged 16–89: 65% were women, and 35% were men; 28% of the participants were born in the municipality, and 74% reported being victims of armed conflict. Ninety-seven percent of the informants belonged to a Benefit Plan Administration Entity (BPAE), and 79% belonged to the subsidized scheme. Of those interviewed, only 16% belonged to a health program, more than 50% had a health condition, 35% suffered from some chronic disease, and approximately 60% were overweight or obese. In the last three years, 55% of the informants had been tested for human papillomavirus (HPV), 54% had been tested for cardiovascular screening, and 65% had been vaccinated to protect against tetanus. Screening rates for depression, colorectal cancer, sexually transmitted infections, and dental screening were low. On the other hand, pregnant women had laboratory tests in the first (100%), second (90%), and third trimesters (60%). Risk behaviors were assessed in approximately 80% (substance use). The figures for their support networks were low, as was their knowledge of nutrition during pregnancy, labor rights, depression, and gender-based violence.

Self-perception

When we asked informants about their self-perception of their health, they replied that it was excellent (20%), good (41%), neither good nor bad (26%), bad (11%), and terrible (2%). In terms of their satisfaction with the EPS and the services they had received over the last two years, most respondents said it was good and neither good nor bad. As a result of the community-based research, we identified five constructs related to the participants' values and beliefs about health, which we present below:

Table 1
Compendium of participants' values and beliefs about health

Construct	Values	Beliefs
Health and disease processes	Be healthy	<ul style="list-style-type: none"> ● Being healthy means not needing help from others, which is the same as not being sick. ● Being healthy is a guarantee of good health care.
	Live in well-being	<ul style="list-style-type: none"> ● Well-being is living in an area where our basic needs are met. ● Well-being means living in an area where safety is guaranteed. ● Well-being means having good physical and emotional health. ● Well-being is not just an individual condition but a community condition.
Health, body, and territory	Living in an inclusive territory	People with physical disabilities feel that the urban area lacks the appropriate infrastructure for them to live and move around easily.
	Have mental stability	<ul style="list-style-type: none"> ● The armed conflict in the region has affected people's mental health. ● Mental health is a neglected need in the community. ● There are not enough professionals to address the mental health of the local population.
Health care	Nutritional habits	<ul style="list-style-type: none"> ● Nutritious food prevents disease. ● The land is not fertile enough to grow some items in the family basket because of illegal cultivation and spraying.
	P&P habits in healthcare centers	<ul style="list-style-type: none"> ● Lack of trust in the health institutions means people only seek out P&P practices for healthy living when sick. ● Women, children, and the elderly are likelier to participate in P&P programs than men. ● Poor service delivery by health institutions is why pregnant women do not seek prenatal care.
	The desire to have spaces for healthcare	Urban and rural areas lack infrastructure for young people and the elderly to engage in sports or other physical activities that contribute to their well-being.
Networks of care	Family and community as a support network to address adverse health problems	The family is the most critical support network in the face of illness or disease, followed by the local community.
	The importance of self-care practices	People prefer to self-medicate when in pain or ill due to poor service delivery at health centers.
Barriers to access	Improving access to the area	<ul style="list-style-type: none"> ● Access problems affect both physical and mental health. ● Improving roads could reduce the need for ambulances and other transport. ● The poor condition of the roads and the high transport cost mean that people only travel to the urban area for emergency care.

Construct	Values	Beliefs
	Strengthening sexual and reproductive health education spaces	<ul style="list-style-type: none"> ● Young women feel that sexual and reproductive health education is out of context and does not provide the appropriate knowledge. ● Most adults feel that discussing sexual and reproductive health exposes young people and encourages them to develop unhealthy habits and inappropriate practices.

Assets

During the study, we found that the municipality of Vista Hermosa has three essential assets for implementing the RIAS for Health Promotion and Maintenance and the RIAS for Maternal-Perinatal Health. First, several municipal, departmental, and national health actors have the installed capacity to strengthen health policies and services in favor of peacebuilding health interventions to reduce the vulnerability conditions of the population in urban and rural areas.

Second, the municipality has several assets that could improve the capacity of people, groups, communities, populations, social systems, and institutions to maintain and sustain health and well-being and reduce inequalities [35]. In terms of the government sector, Vista Hermosa has the Government Secretariat, the PTH, the Family Commissariat, the 68 Community Action Councils registered in the rural settlements, the Public Prosecutor's Office, the Court, the Armed Forces (National Army, Police Inspectorate, and Child and Adolescent Police), the National Registry Office and the Territorial Renewal Agency. In terms of the health sector, there are two HPIs: Llano Salud del Meta, which is a private company, and the Care Center of Vista Hermosa, which is a public company. There are also seven pharmacies. On the other hand, there are sports and leisure services, symphonic bands, and traditional dance schools. Network and technology mapping revealed a low level of coverage: only one telecommunications operator provides efficient services in the area.

Third, we found several enablers for the implementation of the RIAS. The municipality has the facilities to provide primary health care services: the Care Center provides emergency care, hospitalization, external consultations, and a clinical laboratory. It has two dental units, an operating room, a maternity unit, and an oral rehydration unit. On the other hand, the PUJ, in partnership with the hospital, provided health training to the HCT and the community and community leaders participating in the Health for Peace project.

Discussion

This study has made significant contributions in three areas: a) the communities in the urban areas of Vista Hermosa and Santo Domingo; b) the ongoing implementation of the RIAS in Vista Hermosa and other PDET municipalities; and c) the field of research on peacebuilding health interventions. Regarding the first area, it was essential to identify and value the existing capacities, skills, potential, knowledge, and connections [36] in the community, which have materialized in previous successful dynamics and processes that have contributed to "bien-vivir," as well as the health actions led by community leaders. They have built their capacity through the Health for Peace program, which has been effective and well received by the grassroots. The inventory of existing assets and identifying the needs of people and institutions contributed significantly to the proposal's design to implement the RIAS in the local context. The stock allowed us to design individual and collective training sessions that led the learners to work on their self-care and understand the complexity of the health system, which goes beyond the

provision of PHC because it can benefit users' mental health, reconciliation, and the recovery of the social fabric, and be informed about their rights and responsibilities, including timely, appropriate and affordable access to quality care services [37]. Thus, focusing on the existing assets, even if they are not fully utilized, is more effective than concentrating on scarcities and deficits because key actors can become aware of the possibility of activating such assets for networking, investing in the mobilization of their capacities, and providing access through viable and sustainable long-term processes. In this way, they strengthen and empower social networks, people, and communities to control their health care and some broader determinants [38, 39].

Regarding the second area, this study provided relevant information for designing a general methodology for implementing the RIAS from a peacebuilding perspective. Although there is a Comprehensive Health Care Policy that includes strategies and tools for transforming an institutional health model into one that is more people-centered and based on family and community relations [5], it has been challenging to try to materialize such a normative framework in the country's municipalities, specifically, in the PDET municipalities, through a straightforward route that shows how to develop a territorial-based implementation. Therefore, we have designed a tool with the following characteristics:

1. As the Peace Agreement proposes, build on the current legal framework for comprehensive health care, including NPRH.
2. Identify and mobilize community assets and capacities that can be maintained or improved to strengthen the health system and "bien-vivir."
3. Evaluate the implementation of the RIAS, and identify the enablers and barriers, considering the municipality's historical, social, cultural, and economic characteristics.
4. Promote dialog between private and public sector actors at the local, regional, and national levels to strengthen intersectoral articulation and collaboration to effectively implement the RIAS as a peacebuilding health intervention in areas of high vulnerability.
5. Develop recommendations to improve the population's health and implement the RIAS.

In conclusion, this proposal can be contextualized and applied in any other municipality in the country, as it breaks down the normative and conceptual framework and the steps to be followed by local authorities for implementation, evaluation, monitoring, and lesson learning.

Concerning the third area, we have considered peace as a necessary resource for strengthening the health of communities, starting from the model of social determinants of health, which seeks to create and sustain the appropriate processes for transforming conflict, which occurs where conditions of vulnerability are exacerbated by violence, war, economic disparities, among other factors, into peaceful and sustainable relationships through public health and health policy actions [40]. These contribute to "bien-vivir" at the individual and collective levels and with nature [41]. Although there is documentation on the effects of direct exposure to violence and its impact on the mental, sexual and reproductive, and maternal-perinatal health of the population [13, 42], as well as the effects of the implementation of the Peace Agreement on the social determinants of health in Colombia [12], it is essential to highlight that the literature on peacebuilding health interventions in the context of the implementation of the recent Peace Agreement is limited. Therefore, this study is highly relevant because it starts from an understanding of the link between health and peacebuilding, so it presents a methodology for the implementation of the RIAS from a territorial perspective, taking into account the assets and input of the grassroots and the interinstitutional cooperation to apply and disseminate the proposal in other municipalities in the country that have similar challenges to Vista Hermosa.

The study also identified challenges and limitations that could affect the implementation of the RIAS. As we have said, some health policies aim to improve the quality of service delivery to the rural population in Colombia. However, it requires political will at the local and regional levels to promote intersectoral and interinstitutional articulation and cooperation to continue the implementation of the RIAS and the Peace Agreement: 30% of its provision was complete, 19% was in an intermediate status, 37% was in a minimum level, and 15% had not yet started in November 2021 [43]. For this reason, it is imperative to develop planning that a) addresses structural problems and urgent issues that arise daily in territorial bodies; b) involves all the institutions responsible for implementation, monitoring, evaluation, and learning; c) implements strategies and actions for quality health care at all levels; and d) establishes a short-, medium- and long-term projection that goes beyond the current territorial development plans and individual agendas. Therefore, local, regional, and national authorities must focus on enforcing the Law of Total Peace. This state law aims to continue the implementation of the Peace Agreement, negotiate with the illegal and organized armed groups with which they hold political dialogues, and engage in discussion with organized armed groups or organized armed criminal structures of high impact to bring them to justice and dismantle them [44]. Such planning can help to reduce the exacerbation of armed conflict that has occurred in recent years.

On the other hand, people's lack of trust in the health system and institutions is due to the breakdown of the social fabric during the armed conflict. As a result, they are reluctant to participate in civic spaces where they can contribute, learn, monitor, and advocate. For this reason, harnessing and maximizing community resources is essential to promote "bien-vivir," where people can prioritize environmental sustenance, self-reliance, well-being, knowledge, organization, and solidarity. Hence, they can equip themselves with tools to design their pathways to transition in terms of care [45] and engagement. In addition, the HCT could find ways to reach out to the community and learn about their values and beliefs about health and identify traditional and natural knowledge and practices that could be integrated into PHC, as the World Health Organization states [46].

Declarations

Acknowledgments

We want to thank the communities of Vista Hermosa and Santo Domingo for allowing access to the research team and sharing crucial personal information. Thanks to all the people who supported the development of this study, especially the Major Office, the Health Center, and the government institutions in Vista Hermosa. Thanks to those who supported this study, such as the professors of the HUSI and the PUJ.

Authors' contributions

LG had the idea for the protocol, wrote the first draft of the proposal, and led the discussion in the group as the Principal Investigator of the research proposal. She also developed the first draft of the manuscript based on the protocol and collected comments from all team members to revise successive drafts and develop and submit the final draft to the journal. AD and CGR adapted and contributed to the design of the second version of the protocol, added methodological options, and led the academic activities and the discussion. JM, OG, and CC supported the protocol design, the quantitative and qualitative analysis, and thematic and methodological triangulation. VC assisted with the literature review and qualitative research.

Funding

The Ministry of Science and Technology funded this study under the Call for the Generation of New Knowledge Pact through Scientific Research Projects in Medical and Health Sciences No. 844-2019.

Availability of data and materials

The datasets used and analyzed during the current study are available from the corresponding author upon reasonable request.

Ethics approval and consent to participate

Research authorized by the Ethics Committee of Pontificia Universidad Javeriana, Colombia.

Consent for publication

Not applicable.

Competing interests

The authors declare that they have no competing interests.

Author details

¹ Pontificia Universidad Javeriana, ² Fundación Saldarriaga Concha, ³ Hospital Universitario San Ignacio.

References

1. Acosta A. Colombia: escenario de las desigualdades. *Revista de la Facultad de Ciencias Económicas y Administrativas de la Universidad Antonio Nariño*. 2013; XIV(1):9–35.
2. CEDETES, Ministerio de Salud y Protección Social. Inequidades en salud de las enfermedades no transmisibles en Colombia [Internet]; 2013. Disponible en: <https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/PP/ENT/inequidades-salud-enfermedades-no-transmisibles-colombia.pdf>
3. Ministerio de Salud y Protección Social. Análisis de Situación de Salud (ASIS) Colombia. [Internet]; 2020. Disponible en: <https://www.minsalud.gov.co/salud/publica/epidemiologia/Paginas/analisis-de-situacion-de-salud.aspx>
4. Congreso de la República. Ley 715 de 2001: Sistema General de Participaciones [Internet]; 2001. Disponible en: https://siteal.iiep.unesco.org/sites/default/files/sit_accion_files/co_0374_0.pdf
5. Ministerio de Salud y Protección Social. Política de Atención Integral en Salud. Bogotá: Ministerio de Salud y Protección Social; 2006.
6. Ministerio de Salud y Protección Social. Modelo Integral de Atención en Salud - MIAS. Plan de capacitación sectorial [Internet]; 2016. Disponible en: <https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/01-pais-mias-capacitacion-sectorial.pdf>
7. Ministerio de Salud y Protección Social. Rutas Integrales de Atención en Salud - RIAS [Internet]; s.f. Disponible en: <https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/05-rias-presentacion.pdf>

8. Gobierno Nacional, Fuerzas Armadas Revolucionarias de Colombia - Ejército del Pueblo (EP). Conpes 3932 de 2018 - Plan marco de implementación del Acuerdo final para la terminación del conflicto y la construcción de una paz estable y duradera. Bogotá: Departamento Nacional de Planeación; 2018.
9. Agencia para la Renovación del Territorio. Programas de Desarrollo con Enfoque Territorial [Internet]; s.f. Disponible en: https://www.renovacionterritorio.gov.co/especiales/especial_pdet/
10. Mondragón-Sánchez et al. Impact of the Peace Agreement on the Social Determinants of Health in Colombia. *Revista Brasileira de Enfermagem*. 2021; 74(2):e20200892.
11. León-Giraldo et al. A Light of Hope? Inequalities in Mental Health Before and After the Peace Agreement in Colombia: A Decomposition Analysis. *International Journal of Equity in Health*. 2021; 20(1):39.
12. Hernández-Holguín D. Conceptual Perspectives in Mental Health and their Implications in the Context of Achieving Peace in Colombia. *Ciência & Saúde Coletiva*. 2020; 25(3):929–942.
13. Tamayo-Agudelo W, Bell V. Armed Conflict and Mental Health in Colombia. *The British Journal of Psychiatry International*. 2019; 16(2):40–42.
14. OMS. Salud y derechos humanos [Internet]; 2023. Disponible en: <https://www.who.int/es/news-room/fact-sheets/detail/human-rights-and-health>
15. Olaya A. La paz es un requisito para la salud. *Revista Facultad Nacional de Salud Pública*. 2016; 34(3):273–274.
16. OPS. Salud para la paz y paz para la salud [Internet]; 2020. Disponible en: .
17. Ghebreyesus T. Creating Health by Building Peace. *BMJ Global Health*. 2022; 7(Suppl 8).
18. Meagher et al. A Missing Piece in the Health for Peace Agenda: Gender Diverse Leadership and Governance. *BMJ Global Health*. 2022; 7(Suppl 8).
19. Ruiz et al. Esquema de Ordenamiento Territorial. Municipio de Vista Hermosa. Resumen ejecutivo [Internet]; 2002. Disponible en: https://vistahermosameta.micolombiadigital.gov.co/sites/vistahermosameta/content/files/000554/27683_eot-resumen-ejecutivo-vistahermosa.pdf
20. FIP, USAID, OIM. Dinámicas del conflicto armado en Meta y su impacto humanitario [Internet]; 2013. Disponible en: <https://storage.ideaspaz.org/documents/DocumentoMonitoreoConflictoArmadoMetaAgosto%20Final%202013-correcciones%20ELI%20.pdf>.
21. Cobo et al. Contextualización de territorios. Vista Hermosa [Internet]; 2019. Disponible en: <https://proyecto-dialogosimprobables.com/wp-content/uploads/2021/05/Documento-Contexto-DC-Vistahermosa.pdf>
22. Creswell J, Fetters M, Ivankova N. Designing a Mixed Methods Study in Primary Care. *Annals of Family Medicine*. 2004; 2:7–12.
23. Fàbregues et al. A Methodological Review of Mixed Methods Research in Palliative and End-of-Life Care (2014–2019). *International Journal of Environmental Research on Public Health*. 2020; 17(11):1–16.
24. Institute of Medicine. *The Future of the Public's Health in the 21st Century*. Washington (DC): National Academies Press (US); 2002. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK221240/>
25. Razali N, Yap W. Power Comparisons of Shapiro–Wilk, Kolmogorov–Smirnov, Lilliefors and Anderson–Darling Tests. *Journal of Statistical Modeling and Analytics*. 2011; 2(1):21–33.
26. Elmore et al. Analyzing Relationships between Two Variables. In: Elmore et al. (editors). *Jekel's Epidemiology, Biostatistics, Preventive Medicine, and Public Health*. St. Louis: Elsevier; 2020. pp. 149–171.

27. Ministerio de Salud y Protección Social. Encuesta nacional de evaluación de los servicios de las EPS. Informe final Colombia [Internet]; 2017. Disponible en: <https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/CA/Informe-encuesta-satisfaccion-eps-2017.pdf>
28. Sallis J, Owen N, Fisher E. Ecological Models of Health Behavior. In: Glanz K, Rimer B, Viswanath K (editors), Health Behavior and Health Education: Theory, Research, and Practice. San Francisco, CA: Jossey-Bass; 2008. pp. 465–486.
29. Abraham C, Sheeran P. The Health Belief Model. In: Ayers et al. Cambridge Handbook of Psychology, Health, and Medicine. Cambridge: Cambridge University Press; 2007. pp. 97–102.
30. Stratton S. Population Research: Convenience Sampling Strategies. Prehospital and Disaster Medicine. Cambridge University Press; 2021; 36(4):373–4.
31. Habegger S, Mancila I. El poder de la Cartografía Social en las prácticas contrahegemónicas o la Cartografía Social como estrategia para diagnosticar nuestro territorio. Revista Araciega. 2006; 14:1–10.
32. Alcaldía de Vista Hermosa. Análisis de situación integral de salud con el Modelo de los determinantes sociales de salud del municipio de Vista Hermosa (Meta); 2021.
33. Alcaldía de Vista Hermosa. Plan Territorial de Salud [Internet]; 2022. Disponible en: <http://www.vistahermosa-meta.gov.co/directorio-institucional/plan-salud-territorial>
34. DANE. Necesidades Básicas Insatisfechas [Internet]; 2018. Disponible en: <https://www.dane.gov.co/index.php/estadisticas-por-tema/pobreza-y-condiciones-de-vida/necesidades-basicas-insatisfechas-nbi>
35. Morgan A, Ziglio E. Revitalizing the Evidence Base for Public Health: An Assets Model. Promotion & Education. 2007; Suppl 2:17–22.
36. Foot J & Hopkins T. A glass half-full: how an asset approach can improve community health and well-being. Great Britain Improvement and Development Agency; 2010.
37. OMS. Salud y derechos humanos [Internet]; 2023. Disponible en: <https://www.who.int/es/news-room/fact-sheets/detail/human-rights-and-health>
38. Sigerson D, Gruer L. Asset-based Approaches to Health Improvement. NHS Scotland [Internet]; 2011. Available from: <http://www.healthscotland.com/uploads/documents/17101-assetBasedApproachestoHealthImprovementBriefing.pdf>
39. Evans M, Winson A. Asset-based Approaches to Public Health. A Conceptual Framework for Measuring Community Assets. Birmingham City Council & University of Birmingham; 2014.
40. Srof B. The Nurse as Peacebuilder: Intersections of Health and Peace. Public Health Nursery. 2022; 39(6):1395–1399.
41. Franco S. Salud para la Paz y Paz para la Salud. Gerencia y políticas de salud. Universidad Javeriana. 2015; 1–4.
42. Suárez-Baquero D, Bejarano-Beltrán M, Champion J. Rural Women in Colombia, Facing the Post-conflict: A Qualitative Synthesis. Trauma Violence Abuse. 2022; 23(4):1302–1316.
43. Álvarez J et al. Cinco años después de la firma del Acuerdo Final: Reflexiones desde el monitoreo a la implementación [Internet]; 2022. Disponible en: <https://doi.org/10.7274/z029p270x6d>
44. Congreso de la República. Ley 2272 de 2022: Política de paz como política de Estado; 2022.

45. Escobar A. El postdesarrollo como concepto y práctica social. En Mato D. (coord.), Políticas de economía, ambiente y sociedad en tiempos de globalización. Caracas: Universidad Central de Venezuela; 2005. págs. 17–31.
46. WHO. Continuity and Change-implementing the Third WHO Medicines Strategy: 2008–2013. Ginebra: WHO; 2009.

Figures

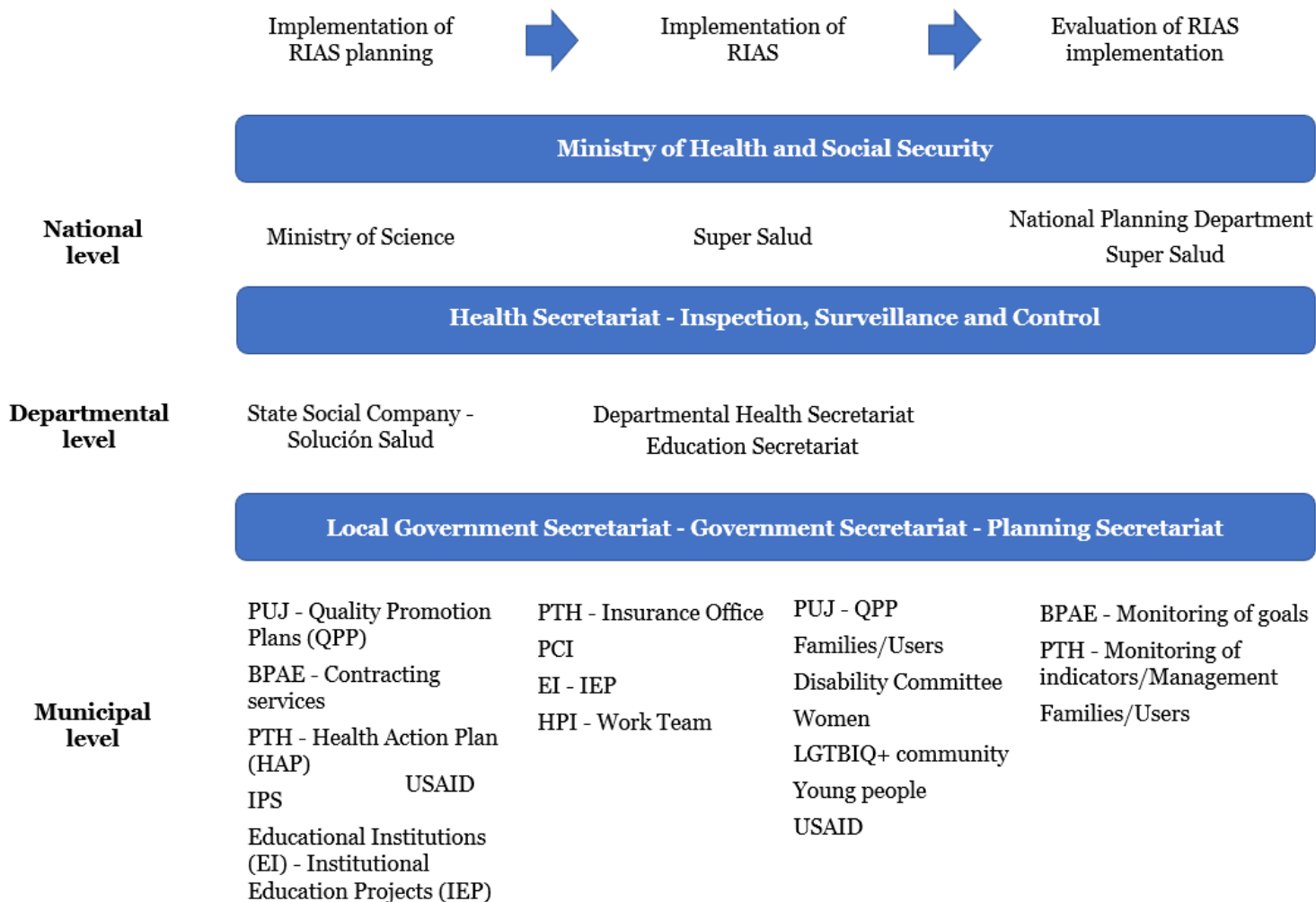


Figure 1

Matrix of crucial health actors for implementing the RIAS in Vista Hermosa.