# **Integrative Review**



## Health integration across international borders: an integrative review

A integração de saúde entre fronteiras internacionais: uma revisão integrativa Integración de salud atravesando fronteras internacionales: una revisión integrativa

Giane Zupellari dos Santos-Melo<sup>1</sup> Selma Regina de Andrade<sup>2</sup> Andriela Backes Ruoff<sup>2</sup>

#### **Keywords**

Border areas; Border health; International cooperation; Emigration and immigration; Health management

#### **Descritores**

Áreas de fronteira; Saúde na fronteira; Cooperação internacional; Emigração e imigração; Gestão em saúde

#### **Descriptores**

Áreas fronterizas; Salud fronteriza; Cooperación internacional; Emigración e inmigración; Gestión en salud

## Submitted

December 13, 2017

## Accepted

February 22, 2018

#### **Abstract**

Objective: Evidence the types and goal of the healthcare integration agreements in international border regions.

Methods: Integrative literature review, in which studies published between 2006 and 2015 were selected that were indexed in the electronic databases CINAHL, Clinics Collection, LILACS, MEDLINE, PubMed, Scopus and SocINDEX. Thirteen studies were included.

databases of which, Chinas Confection, CLEACS, MILDELINE, Fullower, Occupied and Societies. I fill feel included.

Results: The results demonstrate that formal and informal integration agreements exist in border regions, formalized by federal governments or international laws. The prevalent goals of these agreements are monitoring, disease detection and control in border regions.

Conclusion: The agreements studied aim for cooperation to cope with regional difficulties. The integration actions tend to minimize the health asymmetries of border populations.

#### Resumo

Objetivo: Evidenciar os tipos e a finalidade dos acordos de integração de atenção à saúde que ocorrem em regiões de fronteiras internacionais. Métodos: Revisão integrativa de literatura, na qual foram selecionados estudos publicados entre 2006 a 2015, indexados nas bases eletrônicas CINAHL, Clinics Collection, LILACS, MEDLINE, PubMed, Scopus e SocINDEX. Foram incluídos 13 estudos.

Resultados: Demonstram que os acordos de integração em regiões de fronteiras entre países são dos tipos formais e informais, formalizadas por governos federais ou legislações internacionais. Como finalidade destes acordos, prevalecem os de monitoramento, detecção e controle de doenças em regiões fronteiriças.

Conclusão: Os acordos estudados objetivam a cooperação para o enfrentamento de dificuldades regionais. As ações de integração tendem a minimizar as assimetrias de saúde das populações fronteiriças.

#### Resumen

Objetivo: Evidenciar los tipos y finalidad de los acuerdos de integración de atención de salud existentes en zonas de frontera internacionales. Método: Revisión integrativa de literatura, en la que fueron seleccionados estudios publicados de 2006 a 2015, indexados en las bases CINAHL. Clinics Collection, LILACS, MEDLINE, PubMed, Scopus y SocINDEX. Fueron incluidos 13 estudios. Resultados: Demostraron que los acuerdos de integración en zonas de fronteras entre países responden a los tipos formales e informales,

Resultados: Demostraron que los acuerdos de integración en zonas de fronteras entre países responden a los tipos formales e informales, respaldados por gobiernos federales o por la legislación internacional. Como fin de estos acuerdos, prevalecen los de monitoreo, detección y control de enfermedades en regiones fronterizas.

Conclusión: Los acuerdos estudiados apuntan a la cooperación para enfrentar las dificultades regionales. Las acciones de integración tienden a minimizar las asimetrías sanitarias de las poblaciones fronterizas.

#### Corresponding author

Giane Zupellari dos Santos-Melo http://orcid.org/0000-0003-1161-8677 E-mail: gzsantos3@hotmail.com

#### DOI

http://dx.doi.org/10.1590/1982-0194201800015



#### How to cite:

Santos-Melo GZ, Andrade SR, Ruoff AB. Health integration across international borders: an integrative reviewA integração de saúde entre fronteiras internacionais: uma revisão integrativa. Acta Paul Enferm. 2018;31(1):102-7.

1Universidade do Estado do Amazonas, Manaus, AM, Brazil. 2Universidade Federal de Santa Catarina, Florianópolis, SC, Brazil. Conflicts of interest: none to declare.

## Introduction

The integration of health between countries is a recurring theme, discussed by border region managers, whose manifestations on cross-border health situations take positive and negative forms.<sup>(1)</sup>

Most of the border regions are distant from the large urban centers, a fact that can negatively affect the health conditions of the population living there. The formulation of integration policies in these scenarios can minimize the economic and social impacts of these regions.<sup>(1)</sup>

Integration processes between countries, including those accomplished in border regions, are motivated by economic and geopolitical issues regulated by the World Trade Organization. (2) The created policies result in the abolition of legal and institutional tariff barriers that facilitate the access to shared institutions and rules for the consumption of social services between countries. (3)

International health integrations turned into a social financing power as from the 1990s, when the financial capacity of development banks led to the creation of a new design of government policy decisions, which gradually established itself as the dominant technique. (4) In this context, integration has played a key role in achieving the global health objectives, reflecting its importance for trade, population mobility, public finances and other international issues. (5)

International cooperation, and its effects in health, have been instrumental in achieving the goals globally agreed upon, which reinforces the relevance of recognizing the types and purpose of health care integration agreements in border areas. In addition, the common interests of the states facilitate the consolidation of regional integration spaces, in which joint actions ensure projects to guarantee the right to health, (6) especially the right of access to services. (7) Considering the geopolitical dimensions of the Brazilian state, member of the Mercosur and a signatory of the United Nations, with an extensive territorial interface with other countries; and its model of comprehensive care and universal access to health, this study aimed to highlight the types and purpose of the health care

integration agreements that occur in international border regions.

## Methods

Integrative literature review, whose method permits the systemization of empirical and theoretical knowledge about a topic of interest, as well as to synthesize different perspectives on a phenomenon. (8) The study was designed through the recommendations of the Statement for Reporting Systematic Reviews and Meta-Analyses of Studies (PRISMA) checklist and the elaboration of a protocol, validated by an expert reviewer, consisting of five sequential steps: problem identification, data collection, data evaluation, analysis and interpretation, and presentation of results. (8,9)

In the first stage, the problem was identified and the review question was defined: What are the types and purpose of the healthcare integration actions that take place in international borders regions?

For the data collection, the filters included the Portuguese, English and Spanish languages, in the time frame from 2006 to 2015, which considered, as a milestone, the implementation of the Integrated Border Health System in Brazil in 2005. This system aimed to promote the integration of health actions and services in border regions of Brazil. (10)

Original articles fully available online were included. Experience reports, reflections, literature reviews, editorial management reports, letters, opinion articles, comments, congress abstracts, essays, repeated articles, dossiers, official documents, theses, dissertations, books and articles that did not meet the scope of this review were excluded.

In the literature review, electronic bibliographic databases were consulted in June and July 2016: CINAHL, Clinics Collection, LILACS, MEDLINE, PubMed, Scopus and SocINDEX. To compose the search strategy, we used the Boolean operators "OR" and "AND" and keywords and descriptors combined with their respective terms in English and Spanish: Health management, Systems integration, Health Care, Border Health, Border

Health and Border. Based on this strategy, 742 articles were identified, 125 of which were excluded due to repetition, totaling 617 studies.

In the third stage, the 617 studies were pre-selected by reading the title, abstract, keywords or descriptors, excluding those that did not meet the inclusion criteria, so that 106 studies remained. These were read in full, excluding articles that did not meet the scope. In this review, 13 studies were considered.

The selected studies were categorized in a table in Microsoft Excel®, which included the following items: article and journal title; year and language of the publication; authors (name, degree and institution); method, research question and objective; research scenario (border countries, states and cities); existence of health integration actions between the countries studies; and existence of integration between border countries. The search and selection method of the studies is displayed in figure 1.

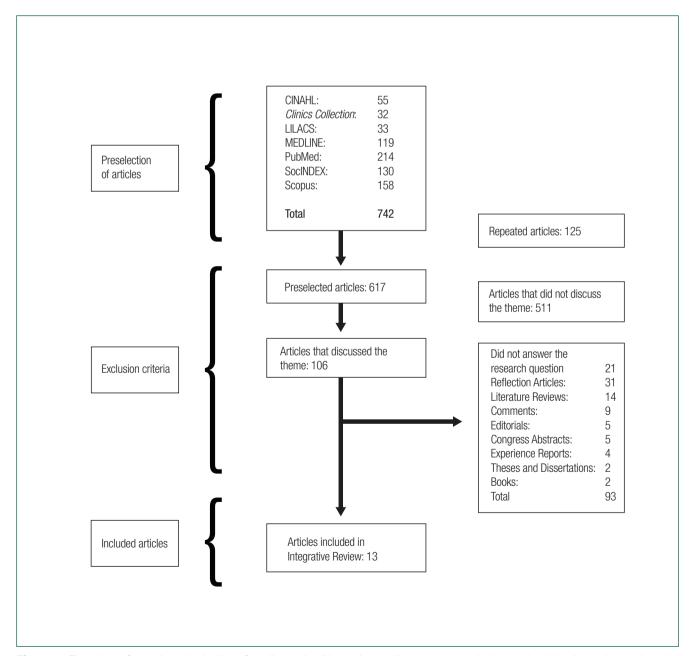


Figure 1. Flowchart of search and selection of studies on healthcare integration agreements in international border regions, adapted from PRISMA

In the fourth stage, the data were analyzed and interpreted and, in the fifth phase of the review, the research report was elaborated.

## Results

The 13 articles analyzed revealed that health actions exist that provided for integration among countries, which took form in the model of international agreements. The data on the governmental policies for the integration of healthcare in international border regions permitted their organization in themes that address the scenarios of health integration agreements, particularly European countries, (11-15) Asian (16-19) and South American countries. (20-23) In these scenarios, the types and goals of the integration agreements could be identified.

In the analysis, ten articles were published in English, two in Portuguese and one in Spanish, between 2007 and 2015. In the scope under analysis, no studies were published in 2006, 2008, 2009 and 2010. The research methods employed were case studies with qualitative approaches<sup>(12,14-16,20)</sup> or simply described as qualitative.<sup>(11,13)</sup> Four studies used quantitative methods<sup>(17-19,21)</sup> and two followed the mixed method.<sup>(22,23)</sup> A synthesis of the themes addressed is displayed in chart 1.

The integration agreements between European countries have taken place across borders strengthened by the EU treaty and legitimized by European Parliament directives, guaranteeing rights to cross-border health care. (11-15) In Asia, agreements are closed across borders close to regions of conflict, (17,19) involving political (18) or religious conflicts. (16) In South America, differences between health systems in countries make it difficult to close agreements. Due to disparities in access to health for border populations, existing agreements are local cooperation initiatives to deal with regional difficulties. (20-23)

Health integration agreements are formal and informal. The formal ones are legitimized by federal governments<sup>(13,17-20)</sup> or supported by international legislations.<sup>(11,12,14,15)</sup> Informal agreements, on the other hand, can be closed between non-gov-

**Chart 1.** Synthesis of types and goals of the healthcare integration agreements according to the international border scenarios

Authors/year	Туре	Goal
Europe		
Rosenkötter N, Clemens T, Sørensen K, Brand H. 2013 <sup>(11)</sup>	Formal Legitimized by the European Union	Facilitate patient mobility between countries of the European Union
Legido-Quigle H, Glinos I, Baeten R, McKee M, Busse R. 2011 <sup>(12)</sup>	Formal Legitimized by the European Union	Facilitate patient mobility between countries of the European Union
Saliba V, Azzopardi N, Vella M, Montalto S, Fenech C, McKee M. 2014 <sup>(13)</sup>	Formal Legitimized by the European Union	Facilitate patient mobility between countries of the European Union
Van der Molen I, Commers M. 2013 <sup>(14)</sup>	Formal Legitimized by the European Union	Respond to emergency situations in border regions
Glinos I, Baeten R. 2015 <sup>(15)</sup>	Formal Legitimized by the European Union	Medium and high-complexity care at one side of the border
Asia		
Skinner A, Sriharan A. 2007 <sup>(16)</sup>	Informal Created by non- governmental organization	Screening and treatment of congenital impairment in infants
Moore M, Dausey DJ. 2015 <sup>(17)</sup>	Formal Legitimized by federal governments	Continuous monitoring of infectious-contagious diseases
Wang H, Zhang L, Yu W, Wen N, Yan D, Tang J, et al. 2015 <sup>(18)</sup>	Formal Legitimized by federal governments	Detection and control of epidemiologically important diseases for the region studied
Pongvongsa T, Há H, Thanh L, Marchand R, Nonaka D, Tojo B, et al. 2012 <sup>(19)</sup>	Formal Legitimized by federal governments	Detection and control of epidemiologically important diseases for the region studied
South America		
Cafagna G, Missoni E, Beingolea R. 2014 <sup>(20)</sup>	Formal Legitimized by the federal government in one of the countries	Promote equity in care for border populations
Giovanella L, Guimarães L, Nogueira V, Lobato LC, Damacena G. 2007 <sup>(21)</sup>	Informal among health professionals	Continuous monitoring of infectious-contagious diseases
Nogueira V, Dal Prá K, Fermian S. 2007 <sup>(22)</sup>	Informal among subnational governments	Training of health professionals working in border regions
Quirós HM, González R, Vergara J. 2011 <sup>(23)</sup>	Informal among local governments	Continuous monitoring of infectious-contagious diseases

ernmental organizations, for example, Middle East Association for Managing Hearing Loss<sup>(16)</sup> or between subnational governments, such as the Charter of Posadas<sup>(22)</sup> between the State of Santa Catarina in Brazil and the Province of Misiones in Argentina.

There are also agreements that cooperation takes place on the basis of informal requests between local health authorities<sup>(23)</sup> or through exchange of favors among health professionals in the countries concerned.<sup>(21)</sup>

Most health integration agreements aim to monitor, (17,21,23) detect and control diseases of epidemiological importance for border regions. (18,19)

The agreements between European Union countries aim to facilitate patient mobility,<sup>(11-13)</sup> mainly in emergency situations<sup>(14)</sup> and hospital care of medium and high complexity at the borders of member countries.<sup>(15)</sup>

Other agreements seek to promote equity in the care for border populations, (20) train health professionals working in border regions (22) and treat newborns with congenital disabilities. (16)

## **Discussion**

This literature review contributes to the recognition and understanding of the types of actions and their goals for health integration agreements across international borders, and can help managers in decision making, planning and implementation of public health policies in favor of the border populations. This review is limited by the non-inclusion of other review studies, experience reports and official documents that discuss this subject, in accordance with a previously approved protocol.

Border regions can be complex, as frontier cities naturally integrate culturally, socially and economically. They create a kind of third space, forming a new society, with its own culture and values, which grants them an identity different from the remaining contingent of the countries they belong to. (24)

In the health area, the international agreements in these regions tend to guarantee the right to health of the local population as, in addition to their own characteristics, the borders are distant from the political and governmental centers of their countries, in mountainous or geographically isolated regions and generally with limited health infrastructure. (5,12) In this condition, the health resources result from their own country's complementary system or from services across the border (20,21) because, when ill, people choose the paths that are most meaningful to them, based on the possibilities they envisage. (25)

The demand for health care in neighboring countries may also be related to the differences

between national health systems, which is the main factor for the success of integration agreements in international border regions. <sup>(20)</sup> Due to the unique characteristics of national systems, there are operational difficulties in integration processes, making border health management more complex. <sup>(26)</sup>

For the success of health integration agreements between governments of the border countries, managers and health professionals need to understand foreigners' rights to health. The results of a study carried out on the borders between Brazil, Argentina, Paraguay and Uruguay showed that these issues reveal the lack of common ethical and political principles and the institutional fragility of existing agreements. (22)

When they occur, such agreements offer benefits to the populations living in those regions. (11,15) Contextual factors exert a strong influence on their implementation and maintenance though. Even when agreements are carried out in conflicting or isolated border regions, their success depends more on the sensitivity and performance of the stakeholders in the process than on the policies that created them. (12,16) An example of this can be observed in the results of the hearing loss project in Arab and Israeli infants. (16)

## Conclusion

Health integration agreements in border regions are a possible initiative and can effectively minimize the existing asymmetries between urban centers and these regions. The results of this review have shown that the existing agreements are formal and informal in nature and aim to co-operate to address regional difficulties due to disparities in the access to health for border populations. Health integration agreements gain consistency when their foundation is based on analyses about which management strategies are necessary for a specific reality. These strategies relate to infrastructure and government policies, as well as to the engagement of actors in the integration process, including the populations in the region.

## References =

- Pecequilo CS, Carmo A. Regional integration and Brazilian foreign policy: strategies in the South American space. Rev Sociol Polít. 2013; 21(48):51-65.
- Organización Mundial del Comercio (OMC), Organización Mundial de la Salud (OMS). Los acuerdos de la OMC y la salud pública: un estudio conjunto de la OMS y la Secretaria de la OMC [Internet]. Geneva:WHO; 2002 [cited 2016 Ago 09]. Available from: http://www.who.int/trade/ resource/en/who\_wto\_s.pdf
- Guimaraes L, Giovanella L. Integração européia e políticas de saúde: repercussões do mercado interno europeu no acesso aos serviços de saúde. Cad Saúde Pública. 2006; 22(9):1795-807.
- Brito PE. La cooperación internacional en salud, tendencias y dilemas en la era de la salud global. Rev Cuba Salud Pública. 2014; 40(1):96-113.
- Gómez YO, Trujillo E, Guzmán JM. Cooperación técnica en salud entre Colombia y sus países fronterizos. Rev Panam Salud Publica. 2011; 30(2):153-9.
- Guerrero E, Auer A, Godue C. Abordaje de temas de salud bajo la perspectiva de salud internacional y la construcción de un modelo conceptual para su comprensión. Organización Panamericana de la Salud: Washington. 2010.
- Piovesan G, Paula CC, Lopes LF, Padoin SM, Kleinubing RE, Silva CB. Qualidade da atenção primária na perspectiva de Profissionais: saúde de crianças e adolescentes com HIV. Texto Contexto Enferm. 2017; 26(2):e00180016.
- Whittemore R, Knafl K. The integrative review: update methodology. J Adv Nurs. 2005; 52(5):546-53.
- Liberati A, Altman DG, Tetzlaff J, Mulrow C, Gøtzsche PC, loannidis JA, et al. The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: explanation and elaboration. BMJ. 2009;6(7):e1000100.
- Brasil. Ministério da Saúde. Portaria GM/MS n.º 1.120, de 6 de julho de 2005. Institui o Sistema Integrado de Saúde das Fronteiras - SIS FRONTEIRAS. Brasília (DF): Ministério da Saúde; 2005.
- Rosenkötter N, Clemens T, Sorensen K, Brand H. Twentieth anniversary of the European Union health mandate: taking stock of perceived achievements, failures and missed opportunities: a qualitative study. BMC Public Health. 2013;13(1074):1-16.
- Legido-Quigleya H, Glinos IA, Baetend R, Mckeea M, Bussee R. Analysing arrangements for cross-border mobility of patients in the European Union: A proposal for a framework. Health Policy. 2012;108:27-36.

- Saliba V, Muscat N, Vella M, Montalto SA, Fenech C, Martin M, et al. Clinicians', policy makers' and patients' views of pediatric cross-border care between Malta and the UK. Health Serv Res. 2014;19(3):153-60.
- Van der Molen IN, Commers MJ. Unresolved legal questions in crossborder health care in Europe: liability and data protection. Public Health. 2013;127(11):987-93.
- Glinos IA, Baeten R. Reprint of: dream vs. reality: Seven case-studies on the desirability and feasibility of cross-border hospital collaboration in Europe. Soc Sci Med. 2015;124:331-7.
- 16. Skinner HA, Sriharan A. Building cooperation through health initiatives: an Arab and Israeli case study. Confl Health. 2007;1(8):1-9.
- Moore M, Dausey DJ. Local cross-border disease surveillance and control: experiences from the Mekong Basin. BMC Research. 2015;8(90):1-10.
- Wang H, Zhang L, Yu W, Wen N, Yan D, Tang J, et al. Cross-border collaboration between China and Myanmar for emergency response to imported vaccine derived poliovirus case. BMC Infect Dis. 2015;15(18)1-8.
- Pongvongsa T, Ha H, Thanh L, Marchand RP; Nonaka D, Tojo B, et al. Joint malaria surveys lead towards improved cross-border cooperation between Savannakhet province, Laos and Quang Tri province, Vietnam. Malaria J. 2012; 11(262):1-15.
- Cafagna G, Missoni E, Beingolea RLB. "Peri-border" health care programs: the Ecuador—Peru experience. Rev Panam Salud Publica. 2014;35(3):207-13.
- 21. Giovanella LG, Nogueira VM, Lobato LV, Damacena GN. Health on the borders: access to and demands on the Brazilian National Health System by foreigners and non-resident Brazilians in cities along the border with MERCOSUR countries from the perspective of municipal health secretaries. Cad Saúde Pública. 2007;23(2):251-66.
- Nogueira VM, Dal Pra KR; Fermiano S. Ethical and political diversity in the right to health care in Brazilian municipalities along the MERCOSUR border. Cad Saúde Pública. 2007; 23(2):227-36.
- Quirós HM, González HR, Vergara JF. Armonización de la vigilancia sanitária interfronteriza: una propuesta vinculanteen salud internacional. Rev Panam Salud Publica. 2011;30(2):148-52.
- 24. Ocampo AH. OPAS e a saúde nas fronteiras: uma proposta em prol do bem-estar da população e do desenvolvimento sustentável. In: COSTA, L. Integração de fronteiras: possibilidades Brasil-Bolívia na Saúde. Ministério da Saúde, Ministério da Integração Nacional. Organização Pan-Americana da Saúde. Brasília: Ministério da Saúde; 2006, 141 p.
- Brustolin A, Ferretti F. Itinerário terapêutico de idosos sobreviventes ao câncer. Acta Paul Enferm. 2017;30(1):47-59.
- Levino A, Carvalho EF. Análise comparativa dos sistemas de saúde da tríplice fronteira: Brasil/Colômbia/Peru. Rev Panam Salud Publica. 2011;30(5):490-501.