

LIZA YURIE TERUYA UCHIMURA

Atenção primária e rede de urgência e emergência: interfaces no âmbito de  
regiões de saúde no Brasil e Canadá

Tese apresentada à Faculdade de Medicina  
da Universidade de São Paulo para  
obtenção do título de Doutor em Ciências

Programa de Saúde Coletiva

Orientadora: Profa. Dra. Ana Luiza d'Ávila  
Viana

SÃO PAULO

2019

LIZA YURIE TERUYA UCHIMURA

Primary health and emergency care network: interfaces in health regions in  
Brazil and Canada

Original Version

Thesis presented to the Faculdade de  
Medicina, Universidade de Sao Paulo to obtain  
the degree of Doctor of Science  
Programme of Saude Coletiva  
Advisor: Prof. Dr. Ana Luiza d'Ávila Viana

SÃO PAULO

2019

**Dados Internacionais de Catalogação na Publicação (CIP)**

Preparada pela Biblioteca da  
Faculdade de Medicina da Universidade de São Paulo

©reprodução autorizada pelo autor

Uchimura, Liza Yurie Teruya

Atenção primária e rede de urgência e emergência : interfaces no âmbito de regiões de saúde no Brasil e Canadá / Liza Yurie Teruya Uchimura. -- São Paulo, 2019.

Tese(doutorado)--Faculdade de Medicina da Universidade de São Paulo.

Programa de Saúde Coletiva.

Orientadora: Ana Luiza D'Avila Viana.

Descritores: 1.Sistemas de saúde 2.Política de Saúde 3.Regionalização 4.Prestação integrada de cuidados de saúde 5.Atenção primária à saúde 6.Serviços médicos de emergência

USP/FM/DBD-126/19

Responsável: Enivalva da Conceição Batista, CRB-8 6755

Uchimura LYT. Primary Health and Emergency Care Network: Interfaces in health regions in Brazil and Canada [thesis]. São Paulo: Universidade de São Paulo, Faculdade de Medicina; 2019.

Approved in:

Examination Board

Prof. Dr. \_\_\_\_\_

Institute \_\_\_\_\_

Judgment \_\_\_\_\_

Prof. Dr. \_\_\_\_\_

Institute \_\_\_\_\_

Judgment \_\_\_\_\_

Prof. Dr. \_\_\_\_\_

Institute \_\_\_\_\_

Judgment \_\_\_\_\_



## **EPIGRAPH**

“A map of the world that does not include Utopia is not worth even glancing at, for it leaves out the one country at which Humanity is always landing. And when Humanity lands there, it looks out, and, seeing a better country, sets sail. Progress is the realization of Utopias.”

Oscar Wilde

## ACKNOWLEDGEMENTS

This thesis could not have been written without the encouragement and ideas of some special people whom I have met in the last few years.

I am eternally grateful to my supervisor Prof. Ana Luiza Viana for her unwavering support, encouragement and wisdom. It has been a great privilege to learn from her over these years.

I would also like to thank my Canadian supervisor, Dr. Greg Marchildon, for hosting me in Toronto, imparting his extensive knowledge, giving me his time and, always, a good talk.

In addition, I am grateful for the insightful suggestions provided in my PhD qualifying examination by Prof. Gisele O'Dwyer, Prof. Ligia Giovanella and Prof. Maria Novaes.

And I want to thank all the staff, students and professors of the Preventive Medicine Department of the Faculty of Medicine, University of Sao Paulo, with whom I have had a pleasure to work throughout the past seven years, for their help during my academic time.

In particular, I would like to thank to Miriam de Souza for the valuable pieces of advice, shared work and partnership. Also, special thanks to Andréa Tenório for precious conversations and sharing new work ideas.

I would like to express my deep gratitude to the “Região and Redes team”, “Gestão Regional – SP team” and “CONGEAS team”, especially to Prof. Nelson Ibañez, Prof. Eronildo Felisberto and Prof. Isabella Samico for the enthusiasm, encouragement and research opportunities they have brought.

With special mention to my beautiful friends, Aline Takejima, Camila Matsuda, Fabiane Osaku, Julie Del Moro and Priscila Takejima. It has been fantastic to share all the best times of my life with you. Thank you so much!

And finally, last but by no means least, to my parents, Nelson and Taqueco, beautiful sister, Yumi, and amazing brother-in-law, Fábio, thank you for your advice and unconditional love.

Thank you for National Council for Scientific and Technological Development – CNPQ (*Conselho Nacional de Desenvolvimento Científico e Tecnológico*) under PhD grant n. 141243/2016-3.

This thesis is in accordance with the following standards, in force at the time of this publication:

References: adaptation from International Committee of Medical Journals Editors (Vancouver).

Universidade de São Paulo. Faculdade de Medicina. Divisão de Biblioteca e Documentação. Guia de apresentação de dissertações, teses e monografias. Elaborado por Anneliese Carneiro da Cunha, Maria Julia de A. L. Freddi, Maria F. Crestana, Marinalva de Souza Aragão, Suely Campos Cardoso, Valéria Vilhena. 3a ed. São Paulo: Divisão de Biblioteca e Documentação; 2011.

Abbreviations of titles of periodicals according to List of Journals Indexed in Index Medicus.

# SUMMARY

## LIST OF FIGURES

## LIST OF ACRONYMS

## ABSTRACT

## RESUMO

<b>1</b>	<b>PREFACE .....</b>	<b>16</b>
<b>2</b>	<b>INTRODUCTION .....</b>	<b>20</b>
2.1	Integrated health systems .....	20
2.2	Primary health care at integrated health systems .....	25
2.3	Complex emergency care .....	27
2.4	Interface between primary health care and emergency care network .....	30
<b>3</b>	<b>AIM, OBJECTIVES AND APPROACH .....</b>	<b>32</b>
<b>4</b>	<b>RESEARCH PROJECT APPROVED BY CAPPESQ .....</b>	<b>35</b>
4.1	Introduction .....	37
4.1.1	Health care networks .....	37
4.1.2	Thematic Networks .....	38
4.1.4	Primary Health Care .....	45
4.1.5	Emergency care network components .....	47
4.2	Comparative study .....	49
4.2.1	Health Region of Barretos, Sao Paulo – Brazil .....	49
4.2.2	Health Regions in Canada .....	51
4.3	Similarities and differences in the Brazilian and Canadian health systems .....	54
4.4	Research question .....	55
4.5	Objectives .....	55
4.5.1	Aim .....	55
4.5.2	Objectives .....	55
4.6	Methods .....	56
4.6.1	Qualitative methodology .....	57

4.6.2 Quantitative methodology .....	57
4.7 Ethical aspects.....	59
4.8 Schedule.....	59
4.9 References.....	60
<b>5 RESEARCH ARTICLES .....</b>	<b>66</b>
5.1 Article 1 - Contributions on the regionalization process in two regions in the Southeast of Brazil.....	66
5.2 Article 2 - Integration between primary health care and emergency services in Brazil: barriers and facilitators.....	79
5.3 Article 3 - Managers and clinicians: perceptions of the impact of regionalization in two regions in Canada .....	90
5.4 Article 4 - Primary and Emergency Care: Assessing integration in two health care regions in Canada.....	92
<b>6 CRITICAL ANALYSIS.....</b>	<b>108</b>
<b>7 CONCLUSIONS.....</b>	<b>115</b>
<b>8 REFERENCES .....</b>	<b>120</b>
<b>APPENDIX .....</b>	<b>128</b>

## LIST OF FIGURES

Figure 1. Conceptual framework for integrated care based on the integrative functions of primary care. ....	20
Figure 2 .Research design and methods. ....	33
Figure 3. Thematic Network in the SUS. ....	40
Figure 4. Emergency care network in Brazil, 2013.....	48
Figure 5. Local Health Integration Network (LHIN) from Province of Ontario, Canada, 2017.....	53
Figure 6. Macro-dimension of policy, structure and organization. ....	58
Figure 7. Facilitators and barriers to integration between primary health care and emergency care network in Brazil and Canada.....	112

## LIST OF ACRONYMS

AME	[ <i>Ambulatório Médico de Especialidades</i> ] Specialized Medical Ambulatories
BHU	Basic Health Unit
CIR	[ <i>Comissão Intergestores Regionais</i> ] Inter-Managers Commission
CPG	[ <i>Comissão de Pós-graduação</i> ] Postgraduate Committee
CNPq	[ <i>Conselho Nacional de Desenvolvimento Científico e Tecnológico</i> ] Council for Scientific and Technological Development
COAP	[ <i>Contrato Organizativo de Ação Pública</i> ] Public Action Organization Contract
DALYs	Disability-Adjusted Life-years
DRS-Barretos	[ <i>Departamento Regional de Saúde-Barretos</i> ] Regional Health Department of Barretos
ECN	Emergency Care Network
ESF	[ <i>Estratégia Saúde da Família</i> ] Family Health Strategy
FMUSP	Faculty of Medicine, University of São Paulo
HCN	Health Care Networks
ICU	Intensive Care Unit
IBGE	[ <i>Instituto Brasileiro de Geografia e Estatística</i> ] Brazilian Institute of Geography and Statistics
IMG	Integrated Medical Group
LHIN	Local Health Integration Network
LMIC	Low-Middle-Income Countries
MS	Ministry of Health
NOAS	[ <i>Normativa Operacional de Assistência à Saúde</i> ] Operational Norm for Health Care
PAHO	Pan American Health Organization
PHC	Primary Health Care

PMAQ	[ <i>Programa Nacional de Melhoria do Acesso e da Qualidade</i> ] National Program to Improved Access and Quality
PMAQ-AB	[ <i>Programa Nacional de Melhoria do Acesso e da Qualidade da Atenção Básica</i> ] National Program for Improving Access and Quality of Primary Health Care
PNAU	[ <i>Programa Nacional de Atenção às Urgências</i> ] National Emergency Care Policy
PNAB	[ <i>Programa Nacional da Atenção Básica</i> ] National Primary Health Care Program
PACS	[ <i>Programa dos Agentes Comunitários de Saúde</i> ] Community Health Agents Program
PRISMA	Program of Research to Integrate Services for the Maintenance of Autonomy
QualiSUS-Rede	[ <i>Projeto de Formação e Melhoria da Qualidade da Rede de Saúde</i> ] Brazil Health Network Formation and Quality Improvement Project
SADT	[ <i>Serviço de Apoio e Diagnóstico Terapêutico</i> ] Diagnostic and Therapeutic Support Service
SAMU	[ <i>Serviço de Atendimento Móvel de Emergência</i> ] Mobile Emergency Care Service
SES-SP	[ <i>Secretaria Estadual de Saúde de São Paulo</i> ] State Secretary of Health of São Paulo
SUS	[ <i>Sistema Único de Saúde</i> ] Unified Health System
UPA	[ <i>Unidade de Pronto Atendimento</i> ] Emergency Care Unit
WHO	World Health Organization



## ABSTRACT

Uchimura LYT. Primary health and emergency care network: interfaces in health regions in Brazil and Canada [thesis]. São Paulo: Faculdade de Medicina, Universidade de São Paulo; 2019.

**Introduction:** There are many factors to be identified and flows to be established in the interface between primary care and the emergency care network. Comparing different health systems with processes of health policies based on regionalization can result in new health planning instruments. In this sense, understanding the regional arrangements and dynamics of the Canadian health system in a comparative study with the Brazilian reality enabled the implementation of strategies for the development of innovations and health management planning in Brazil. **Objective:** To identify the factors that interfere in the establishment of primary care and emergency care network interfaces in different socio-spatial realities (regions) and in different health systems. **Methods:** Two case studies: in Brazil, using mixed methods and in Canada, qualitative methods. The study in the North-Barretos and South-Barretos regions (São Paulo, Brazil) consists of interviews with key informants and analysis of secondary data. In the Mississauga Halton Local Health Integration Network and Toronto Central Local Health Integration Network (LHIN) (Ontario, Canada) interviews were conducted with key informants. The data from the structured questionnaires were tabulated using the PHP Line Survey - Open Source software. Statistical calculations were performed using SPSS Statistics for Windows, Version 22.0. Thematic analysis of the qualitative data (interviews with open-ended questions, meeting minutes and documents) was carried out in Atlas-ti software. The results of the case studies were analyzed independently and, finally, compared to identify their differences and similarities. The study was approved by the Ethics Committee of the University of São Paulo Faculty of Medicine, under process number 045/16. **Results:** Aspects of policy, structure and organization interfere at different levels between primary care and the emergency care network in the regions selected for this study. Regionalization as a dimension of health policy has presented satisfactory results for planning, decision making, and resource management focused on health needs, but has been insufficient for the integration of primary care and the emergency care network. Barriers and facilitators, at policy, structural and organizational levels, were identified for the integration of primary care and the emergency services in the studied regions. **Conclusion:** Health managers should recognize the interfaces and integrate the different health services and share knowledge and population health diagnoses. Fragmented health management is reflected in fragmented health care. To achieve effective integration among health services, stakeholders and policy makers should prioritize better management performance, effective teamwork forums, leadership training, and monitoring programs for each dimension of integrated care.

Descriptors: Health Systems; Health Policy; Regionalization; Integrated Health Care Systems; Primary Health Care; Emergency Health Services

## RESUMO

Uchimura LYT. Atenção primária e rede de urgência e emergência: interfaces no âmbito de regiões de saúde no Brasil e Canadá [tese]. São Paulo: Faculdade de Medicina, Universidade de São Paulo; 2019.

**Introdução:** Há muitos fatores a serem identificados e fluxos a serem estabelecidos nas interfaces entre a atenção primária e a rede de urgência e emergência. A comparação de diferentes sistemas de saúde com processos de políticas de saúde baseados na regionalização pode resultar em novos instrumentos de planejamento de saúde. Nesse sentido, compreender os arranjos e dinâmicas regionais do sistema de saúde canadense em um estudo comparativo com a realidade brasileira possibilitou a implementação de estratégias para o desenvolvimento de inovações e o planejamento da gestão em saúde no Brasil. **Objetivo:** Identificar os fatores que interferem no estabelecimento das interfaces da atenção primária e a rede de urgência e emergência em diferentes realidades socioespaciais (regiões) e nos diferentes sistemas de saúde. **Métodos:** Trata-se de dois estudos de caso: no Brasil, utilizando métodos mistos e no Canadá, métodos qualitativos. O estudo nas regiões Norte-Barretos e Sul-Barretos (São Paulo, Brasil) consiste em entrevistas com informantes-chave e análise de dados secundários. Na *Mississauga Halton Local Health Integration Network* e na *Toronto Central Local Health Integration Network* (LHIN) (Ontário, Canadá) foram realizadas entrevistas com informantes-chave. Os dados dos questionários estruturados foram tabulados usando o software PHP Line Survey - Open Source. Os cálculos estatísticos foram realizados no SPSS Statistics for Windows, versão 22.0. A análise temática dos dados qualitativos (entrevistas com questões abertas, atas de reuniões e documentos) foi realizada no software Atlas-ti. Os resultados dos estudos de caso foram analisados de forma independente e, finalmente, comparados para identificar suas diferenças e semelhanças. O estudo foi aprovado pelo Comitê de Ética em Pesquisa da Faculdade de Medicina da Universidade de São Paulo sob o número de processo 045/16. **Resultados:** Aspectos políticos, estruturais e organizacionais interferem em diferentes níveis entre a atenção primária e a rede de urgência e emergência nas regiões selecionadas para este estudo. A regionalização como dimensão da política de saúde tem apresentado resultados satisfatórios para o planejamento, a tomada de decisão e a gestão de recursos com foco nas necessidades de saúde, mas tem sido insuficiente para a integração da atenção primária e da rede de urgência e emergência. Barreiras e facilitadores, nos níveis político, estrutural e organizacional, foram identificados para a integração da atenção primária com os serviços de emergência nas regiões estudadas. **Conclusão:** Os gestores de saúde devem reconhecer as interfaces e integrar os diferentes serviços de saúde e compartilhar conhecimentos e diagnósticos de saúde da população. A gestão fragmentada da saúde reflete-se em cuidados de saúde fragmentados. Para alcançar uma integração eficaz entre os serviços de saúde, as partes interessadas e formuladores de políticas devem priorizar um melhor desempenho gerencial, fóruns eficazes de trabalho em equipe, treinamento de liderança e programas de monitoramento para cada dimensão do cuidado integrado.

Descritores: Sistemas de Saúde; Política de Saúde; Regionalização; Prestação Integrada de Cuidados de Saúde; Atenção Primária à Saúde; Serviços Médicos de Emergência

---

# PREFACE

---

## 1 PREFACE

This doctoral thesis will be presented in the form of a compilation of articles, based on the norms defined by the Programme of Postgraduate Committee of the University of Sao Paulo related to the Regiment (Resolution 7493 of March 27<sup>th</sup>, 2018) and Regiment of the Postgraduate Programme in Preventive Medicine, Faculty of Medicine, University of São Paulo (Resolution CoPGr 6917 of September 16<sup>th</sup> 2014).

Listed below are the rules for thesis submission in the form of a compilation of articles, regulated by the Postgraduate Committee (CPG) at the Faculty of Medicine, University of São Paulo (FMUSP):

- a) At the discretion of the Coordination Commission Programme, dissertations and theses may be accepted based on Article/Paper compilations;
- b) Master's dissertations must contain at least one article accepted for publication;
- c) Doctoral theses must contain at least two articles accepted for publication;
- d) The article must have been submitted after the student's registration on the program;
- e) Any article that is accepted or published should contain the stated purpose of the Research Project approved by the Ethics Committee on Research Involving Human Participants of the FMUSP and sent to the CPG;
- f) The student must be the first author of the article;
- g) The supervisor must be a co-author of the article;
- h) The indexing of the journal that has accepted or published the article should be according to the Program rules concerning procedures for delivering dissertations and theses;

Theses and dissertations should include the following mandatory items:

- a) Introduction;
- b) Delivering a correlated volume containing the Research Project approved by the Ethics Committee on Research Involving Human Participants of the FMUSP with presentation and critical analysis, written in Portuguese or English;
- c) Inclusion of the accepted or published manuscript;

- d) Analysis, discussion and summary of the contributions made by the article, written in the same language as the article;
- e) Conclusion;
- f) References (from Introduction and Discussion)

Initially, an introduction is presented considering general aspects of the study. Following this, the text will be presented in English as the language used in the articles developed and submitted to scientific journals. Subsequently, the research project, as approved by the Research Ethics Committee – English version – from 2016.

This thesis presented two case studies: one in Brazil, using mixed methods, including explanatory sequential mixed methods, and another in Canada, which used qualitative methods. The results of the data were independently analyzed for both the Brazilian and Canadian studies. The analyzed data were then compared for a better understanding of the realities of the different universal health systems. In the subsequent parts, the results of independent, approved and published articles, related by a unifying theme, were presented.

The first article “Contributions on the regionalization process in two regions in the Southeast of Brazil” presents the contributions on regionalization in policy, structure and organization aspects in the North-Barretos and South-Barretos regions. The second article “Integration between primary health care and emergency services in Brazil: barriers and facilitators” identifies the inefficient integration between the two levels of the health system. The third article “Managers and clinicians: perceptions of the impact of regionalization in two regions in Canada” demonstrates that both sets of actors see regional structures as significantly contributing to the improvement of their respective health systems although they also identify areas that require improvement. Finally, the last research article “Primary and Emergency Care: Assessing integration in two health care regions in Canada” suggests that the policy, structural and organizational aspects in the health system interfere with the integration of primary health and emergency care in two regions of Ontario. This study provides qualitative support for the relationship between managers and clinicians and their perceptions about integration.

The chapter entitled “Critical Analysis” presents a synthesis, analysis and discussion of the contributions made by each research article. The results of the articles are compared and discussed in view of the central theme of this doctoral thesis.

In the final chapter (Conclusions), a summary of the key findings is presented, and the implications of the research outcomes are discussed. In addition, this part presents the main limitations of the study and suggests possible routes for future research.

---

# INTRODUCTION

---

## 2 INTRODUCTION

### 2.1 Integrated health systems

Integrated health systems have been referenced in the international literature by different nomenclatures, leading to diverse interpretations with a lack of consensus (Strandberg-larsen 2010; Lyngsø et al. 2014). Among the most widely-used terms, the following stand out: Regionalized Networks, in European countries, except for Spain that uses the term Integrated Health Organizations; in Canada, the most common name is Integrated Care; in the United States of America, Integrated Systems. The Pan American Health Organization (PAHO) uses the term Integrated Health Care Services (Bautista et al. 2016). In Brazil, in both legislation and scientific production, the term used most recently is Health Care Networks (HCN) (Mendes 2011).

Integrated health systems have promoted the construction of more effective and efficient health systems focused on the patient and the needs of the populations served (Armitage et al. 2009; Suter et al. 2009). Integrated health systems assume the responsibility for planning, providing and coordinating all health services and actions for patients, guaranteeing comprehensive care (Leatt et al. 2000). Identifying the models, processes, strategies and structures to be integrated, and their purposes, is important for a better understanding of the population's needs (Armitage et al. 2009). An integrated health system model is characterized by physician leadership, an emphasis on care coordination, easy access to primary health care, integrated information technology and business intelligence (World Health Organisation 2016).

The scientific literature reports several models of health system integration, which can be categorized into three main groups: system level, program/service level and progressive or sequential models (Armitage et al. 2009). The system level models display a higher concentration of examples to changes to the system's organization (Armitage et al. 2009; Mendes 2011). The program/service level models are aimed at improving patient-focused outcomes based on a specific disease (O'Connell et al. 2000;



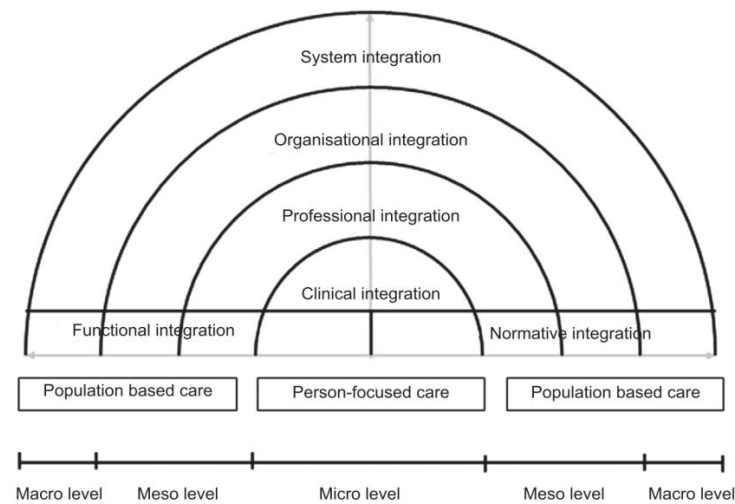
Rijken et al. 2018) or on care coordination (Almeida and Oliveira 2018). Meanwhile, progressive or sequential models present the common feature of achieving integration for better health system performance for patients, providers and managers (Bautista et al. 2016; Suter et al. 2017).

In the international literature, the most widely-used concept of integration refers to a coherent set of funding, administrative, organizational, service delivery and clinical methods and models designed to create connectivity, alignment, and collaboration in health care (Kodner and Spreeuwenberg 2002; Atun et al. 2010). In addition, there is distinction made between integration and integrated care; the latter represents the result of the integration of structures and health service processes improved by patient experience (Kodner and Spreeuwenberg 2002). The nomenclature also varies according to the country: in the United States, managed care; in the United Kingdom, shared care and; in the Netherlands, transmural care (Bautista et al. 2016).

Existing methods for measuring integrated care generally focus on structures and processes, that is, on the organizational and administrative levels, not on the impact of their outcomes (Berg 2015). Despite this, studies have shown that integrated care can help avoid medical errors, duplicated exams and referrals, as well as delays in diagnosis (Vázquez et al. 2015). A common framework between organizations and actors and funding mechanisms, and informed strategy management to add the greatest overall value to the system are the responsibility, respectively, of the normative level and functional level, which ensure connectivity between all levels of integrated care (Valentijn et al. 2013; Carinci et al. 2015; Valentijn et al. 2015).

Valentijn et al. (2013) proposed a conceptual framework for integrated care based on the integrative functions of primary care for better understanding the inter-relationships among these dimensions. The person and population health-focused view is essential across the care continuum, as it recognizes that most health and social problems are inter-related in primary care (Valentijn et al. 2013). There are three levels at which the integration of care can take place: the macro (system) level, the meso (organizational) level and the micro (clinical) level (Figure 1).

Figure 1. Conceptual framework for integrated care based on the integrative functions of primary care.



Fonte: Valentijn et al. (2013).

Integration at the macro level focuses on system integration incorporating the population needs. The meso level emphasizes a population-based approach, requiring professional and organizational integration to facilitate the continuous, comprehensive, and coordinated delivery of services (Valentijn et al. 2013). At the micro level clinical integration highlights the person-focused perspective, ensuring that service users experience continuous care (Valentijn et al. 2013).

Many integrated care initiatives have been rolled out in a wide range of settings and contexts. The World Health Organization's (WHO) Innovative Care for Chronic Conditions Model has included the social determinants of health and has focused on the coordinated system (World Health Organisation 2016). The patient-centered medical home has been developed and promoted in the United States of America as a model for transforming the organization and delivery of primary care (World Health Organisation 2016). One can also point to the Programme of Research to Integrate Services for the Maintenance of Autonomy (PRISMA), a successful Canadian model, which has integrated multiple services, even from different providers, to ensure functional autonomy (Ham et al. 2008) .

A comprehensive systematic review has shown that there is no standard model for integration (Suter et al. 2017). However, ten principles have been identified as essential for integrated care: 1) comprehensive services across the continuum of care; 2) patient focus; 3) geographic coverage and rostering; 4) standardized care delivery through interprofessional teams; 5) performance management; 6) information technology; 7) organizational culture and leadership; 8) physician integration; 9) governance structure and; 10) financial management (Suter et al. 2009).

Nevertheless, despite advances in the studies there are few indicators and tools for measuring the models and principles of health system integration. Most of the existing instruments measure the principle of patient focus with care coordination across the continuum/sectors and patient/family involvement (Suter et al. 2017). Studies have shown that there is an evidence gap for instruments related to primary health care services and shared information systems for health system integration (Lyngsø et al. 2014; Suter et al. 2017).

Instruments for measuring clinical coordination across health care levels have been developed (Vázquez et al. 2017; Navarrete et al. 2018). One of the most relevant emerging findings, in Catalonia, Spain, was the contrasting positive experience of most attributes of clinical information and clinical management coordination across levels, and a general perception of limited coordination across care levels (Navarrete et al. 2018). Whereas, in six Latin American countries, results using the same instrument indicated limited knowledge in all the issues (Vázquez et al. 2017).

There have been few evaluations to date of best practices in health system integration in Latin American and middle-income countries. The reforms in Latin America have mainly been aimed at health care funding and service delivery (Vázquez et al. 2009; Atun et al. 2015) with a key component focus on integrated health care networks within the health sectors (Vázquez et al. 2009). Nonetheless, different types of integrated health care networks may be found in the continent: in Brazil and Chile, regionally based and; in Colombia, enrollment based networks (Vázquez et al. 2009; Giovanella and Almeida 2017).

Several studies have demonstrated the impact of health care networks on system performance (Vázquez et al. 2015; Bergenvin et al. 2016). Furthermore, other studies have identified their types and characteristics. Perri and contributors (Perri et al. 2006) proposed a typology of health care networks, following the logic of health services organization: (1) Hierarchical - highly regulated and highly integrated; (2) Isolated - highly regulated and poorly integrated; (3) Individualist - poorly regulated and poorly integrated; (4) Enclave - poorly regulated but highly integrated.

Other authors (Ferlie et al. 2010) have developed a network typology based on the coordination of patient care: (1) Information coordination - clinical information needed to coordinate activities among providers; (2) Coordination of clinical management, or the provision of care in a sequential and complementary manner; (3) Administrative coordination, or coordination of patients' access through the integration of services according to their needs.

Regardless of the type of network, studies have identified the following main benefits of integrated health care networks: better coordination, continuity of care and efficiency improvement (Vázquez et al. 2009). Nevertheless, evidence has indicated that a lack of coordination between health care levels is one of the causes of poor quality (Vázquez et al. 2015).

In Brazil, several authors who study the field relate similar characteristics about integrated health systems: the centrality of primary health care and its functions; the need for services to have defined populations; the importance of using strategies that regulate flows and the integration of services and actions focused on improving the health of the population (Almeida and Santos 2016; Almeida and Oliveira 2018; Viana et al. 2018). In a recent study, the authors bring two elements of the health care networks: the primary health care resolving capacity and the need for instruments that ensure the continuity of information (Bousquat et al. 2017). In this way, primary health care is considered the corner stone of the health system (Valentijn et al. 2013), as well as an essential component in the concept of integrated health care networks (Almeida and Santos 2016).

## 2.2 Primary health care at integrated health systems

The positive impact of primary health care on reduced mortality, morbidity, and inequalities in health is well known (Starfield et al. 2005; Macinko et al. 2009; Etienne 2018). Primary health care (PHC) is based on three pillars: community empowerment, multisectoral policies and action, and integrated delivery of quality primary care and public health services (Ghebreyesus et al. 2018). However, PHC remains far from reaching the determinants of health and the growing health needs of the 21<sup>st</sup> century and from realizing a vision for health supported by the health systems (Ghebreyesus et al. 2018; Hill 2018; Kluge et al. 2018).

Soranz and Pisco (2017) report that primary care reform should seek new strategies and focus on problem solving. For the authors, lack of patient-oriented focus in health actions, management disjointed from the real difficulties of the territory, organization focused on internal planning and deficit of information systems should be earmarked as priorities for this reformulation (Soranz and Pisco 2017).

Studies have also identified the factors that have hampered the development of PHC worldwide: “an absence of consistent political commitment also resulted in insufficient intersectoral engagement, ineffective community participation, inadequate funding, unregulated commercialization, and suboptimal use of evidence-based policies and local data to direct priorities, assess progress, and ensure quality and safety” (Kluge et al. 2018).

Despite contentious debate over health system reforms in different contexts, there is an emerging consensus that strengthening primary health care will improve health outcomes and restrain the growth of health care spending (Friedberg et al. 2010; Giovanella and Almeida 2017; Báscolo et al. 2018). Even in the face of strong incentives, health system reforms have been redesigned for integrated health systems with PHC playing an essential role (The Lancet 2018). Such a reform is in accordance with one of the principles of the Astana Declaration of 2018 (World Health Organization 2018): “to avoid fragmentation and ensure a functional referral system between primary and other levels of care”.

Dorrance et al., (2018) proposed not only a reform in primary care but also in the whole health system (Dorrance et al. 2018). In the new model, health should be approached in terms of community needs, primary health care should support patients to achieve better results, using health information technology to plan effective tools, technologies to improve patient engagement, collaborative training for physicians and finally, market-driven, not regulatory-constrained, innovation (Dorrance et al. 2018).

The Integrated Medical Group (IMG), a new primary care model based on multi-professional teams in the Veneto Region in Italy, launched in 2016, has both a regional and national level focus (Ghiotto et al. 2018). This model works with Diagnostic-Therapeutic Pathways the design of which is based on continuity of care with transversal tools, mainly for chronic conditions. The arrangement guarantees services within the region while optimizing the use of resources. However, the high cost of this model and different performances has shown that it needs to be improved (Ghiotto et al. 2018).

Despite the difficulties in implementing primary care reforms in Canada, since 2002 the province of Ontario has presented initiatives with primary care models for a new scenario to increase access and improve quality of care (Hutchison and Glazier 2013; Marchildon and Hutchison 2016). Ontario currently has seven different models in primary care (Family Health Group, Comprehensive Care Model, Family Health Network, Family health Organization, Rural and Northern Physician Group Agreement, Nurse Practitioner-Led Clinic, Family Health Team) with differences in terms of number of physicians, remuneration, professional team and after-hours requirement (Marchildon 2013; Marchildon and Hutchison 2016).

The family health team has been described as “the provincial government’s flagship initiative in primary care renewal” in large part because of the requirement to involve other professions with capitation-based or salary-based blended payment models (Hutchison and Glazier 2013; Marchildon and Hutchison 2016). Although the Ontario reform changed the payment to family doctors and access to primary care, it has not yet addressed the fragmentation of the health system and how that can be overcome (Marchildon and Hutchison 2016).

Stokes et al. (2018) developed a typology to describe traditional and alternative payment mechanisms in terms of their expected impact on integration. This typology describes the mechanism in eight dimensions of the whole health system: the scope of payment (1) target population, (2) time, (3) sectors; participation of providers (4) provider coverage, (5) financial pooling/sharing; single provider/patient involvement (6) income, (7) multiple disease/need focus, (8) quality measurement (Stokes et al. 2018). Current payments for integrated care are mostly sector and disease-specific, with questionable impact on those with the most need for integrated care, e.g. elderly people (Stokes et al. 2018).

Since 2006, primary health care reforms in Portugal, in addition to reformulated payment mechanisms, have included the launch of a long-term integrated care program and the development of Family Health Units to support integration attempts (Santana et al. 2014). However, health system integration in Portugal is far from being achieved despite endeavors in policy-making and implementation (Santana et al. 2014; Lopes et al. 2018).

### 2.3 Complex emergency care

Measuring the state of emergency care in low-middle-income countries (LMIC) is challenging (Kellermann et al. 2013; Obermeyer et al. 2015; Mahajan et al. 2018). Emergency care is delivered through a heterogeneous network of facilities and medical records are often incomplete to evaluate that care (Obermeyer et al. 2015). A systematic review in 59 LMIC demonstrated some important conclusions for the emergency care network: (1) most patients seeking emergency care were young people and without chronic conditions; (2) most emergency care professionals have had no training in emergency; (3) high mortality in emergency departments. In view of these issues, the study reinforces the importance of placing emergency care on the global health agenda (Obermeyer et al. 2015).

Emergency services must have highly qualified professionals, in order to meet the needs of the population and the specific training for accurate decision making in a

short time. This reality, however, is only observed in high income countries. Moreover, emergency services remain one of the entry points for inpatient admissions and this fact reinforces the need for good staff training (Kellermann et al. 2013). In the United States, training for emergency care specialists has been supported by different groups, including universities, governments, non-governmental organizations for development of the specialty. Meanwhile, in Canada an emergency care specialist may be certified through the emergency care training itself or an additional year of specific training in the Family Medicine residency (Doney and Macias 2005).

The leading causes of death and disability-adjusted life-years (DALYs) in LMIC are lower respiratory tract infections (6.8%), perinatal conditions (6.7%) and HIV/AIDS (6.6%). There is no data through emergency medical care with number of DALYs for LMIC, although the immediate treatment of some of these conditions could improve the numbers (Razzak and Kellermann 2002).

There is an urgent need for the creation of global assessment metrics for emergency care, based on data on emergency disease burden compared with different populations (Mahajan et al. 2018). The global priorities for emergency medicine development should follow some principles: (1) identify and involve major stakeholders; (2) ensure program appropriateness and local applicability; (3) link emergency care with primary care and public health programs; (4) build local capacity and ensure program sustainability; (5) application of lessons learned from other emergency care systems (Smith and Haile-Mariam 2005).

Despite primary health care developing its focus on health promotion and prevention of communicable diseases, maternal health, perinatal and child health, and nutritional deficiencies, insufficient efforts have been geared toward medical emergencies. Efficient and effective emergency care must respond to the complications of noncommunicable diseases, an aging population and urbanization. Likewise, emergency care should be integrated into other services at different levels of the health system (Smith and Haile-Mariam 2005).

The Institute of Medicine recommended a regionalized emergency care so patients would receive the right care at the best time and place, the benefits are proven



in trauma and stroke care (Wheatley 2010; Kellermann et al. 2013). The regionalized networks organization involves the integration, interconnection and interaction of services with different levels of technological density distributed in a given territory, which might be a municipality, a region or a state (Ouverney et al. 2017).

In Brazil, the National Emergency Care Policy proposes the development of emergency care based on regionalized networks, not only in hospital settings, but also with pre-hospital services, which differs from other countries (O'Dwyer et al. 2013). Overcrowded emergency departments, deficient primary care (Almeida and Santos 2016; Fausto et al. 2017), poorly developed, inadequate clinical models (Viana et al. 2018), too few medical specialists in emergency care (O'Dwyer et al. 2017) and weakness in governance (Padilha et al. 2018) are some of the main barriers for the development of efficient emergency care.

Another barrier to the emergency care network in Brazil is the unequal spatial distribution of hospitals, with significant gaps in the health care network and overlapping activities between small hospitals and high-complexity centers (Rocha et al. 2017a). Maternity units have a more even distribution throughout Brazil than other emergency care network services. The states of Paraná, Goiás, Minas Gerais, Bahia, Piauí, Rio Grande do Norte, Ceará and Pernambuco presented high levels of accessibility, of hospital beds by inhabitants located within the 60 km catchment area of small hospitals (Rocha et al. 2017b).

Discussions about hospital roles and geospatial distribution should be held to optimize emergency care network services (Carr and Addyson 2010; Rocha et al. 2017a, 2017b). These studies demonstrate that health planning based on the needs of the population is inadequate. Health care networks need to be redesigned in order to facilitate efficient processes in economies of scale, without curtailing the population's access to services.

## 2.4 Interface between primary health care and emergency care network

An interface is defined as the point of interaction between different levels of the health system (Keugoung et al. 2011). Interface between general health services results in integration, implementation, monitoring and evaluation of the health system (Keugoung et al. 2011). Maruthappu et al. (2015) described integration of care as “the creation of structural links between previously separate healthcare services, including anything from process changes to physical co-location” (Maruthappu et al. 2015). In the literature, integration has been described in terms of horizontal and vertical models (Armitage et al. 2009; Valentijn et al. 2013; World Health Organisation 2015).

The growing demand for emergency services is a trend observed in many countries. However, the demand for these services is often caused by patients who need to solve primary health service issues. In the study by Schull et al. (2015), in 2013, 47% of adults in the Province of Ontario, Canada, reported having gone to emergency departments for a condition they thought might have been treated by primary care practitioners, whether a physician, nurse or other professional available (Schull et al. 2015).

Therefore, this research has focused on discussing the interface based on vertical integration, mainly primary health care and the emergency care network. The interface between primary health care and emergency care involves multiple factors to be identified and flows to be established. Comparing different health systems with processes of health policies based on regionalization could result in the use of new health planning instruments.

In this sense, knowing the arrangements and the regional dynamics of the Canadian Health System will help in the comparative study with the Brazilian reality and will enable the implementation of strategies for the development of innovations and health management planning in Brazil. Enhancing this health gap represents a challenge both for making improvements in health systems and for all health professionals and their users.

---

## AIM, OBJECTIVES AND APPROACH

---

### 3 AIM, OBJECTIVES AND APPROACH

The overarching aim of this thesis is to identify the aspects that interfere in the establishment of the primary care and emergency care network interfaces in distinct socio-spatial realities (regions) and distinct health care systems. This will be achieved through the following objectives:

- a) To understand the different realities of the universal health systems of Brazil and Canada;
- b) To verify the process of regionalization and the establishment of health care networks in Brazil and in the international context;
- c) To compare the primary health care and the emergency care network of the Regional Health Department-V of the State of São Paulo and the Mississauga and Central Toronto regions, in the Province of Ontario, Canada;
- d) To analyze the policy, structure and organization aspects of the integration of primary health care with emergency care.

The research for this thesis was based on case studies. The case study scope was “an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-world context, especially when the boundaries between phenomenon and context may not be clearly evident” (Yin 2014). This thesis identifies the phenomenon to be studied as the interface, specifically integration, primary care and an emergency care network, in a regional context.

A case study inquiry relies on multiple sources of evidence, with data needing to converge in a triangulation fashion (Yin 2014). In the two regions of Brazil selected for this research multiple data sources were used (documentation, interviews) using mixed methods for data collection and analysis. While in the two regions of Ontario, Canada, also with diverse sources of evidence (documentation, interviews), qualitative methods were used for data collection and analysis.

Explanatory sequential mixed methods were used in the Brazilian regions, with the quantitative research performed firstly, followed by the results being analyzed and

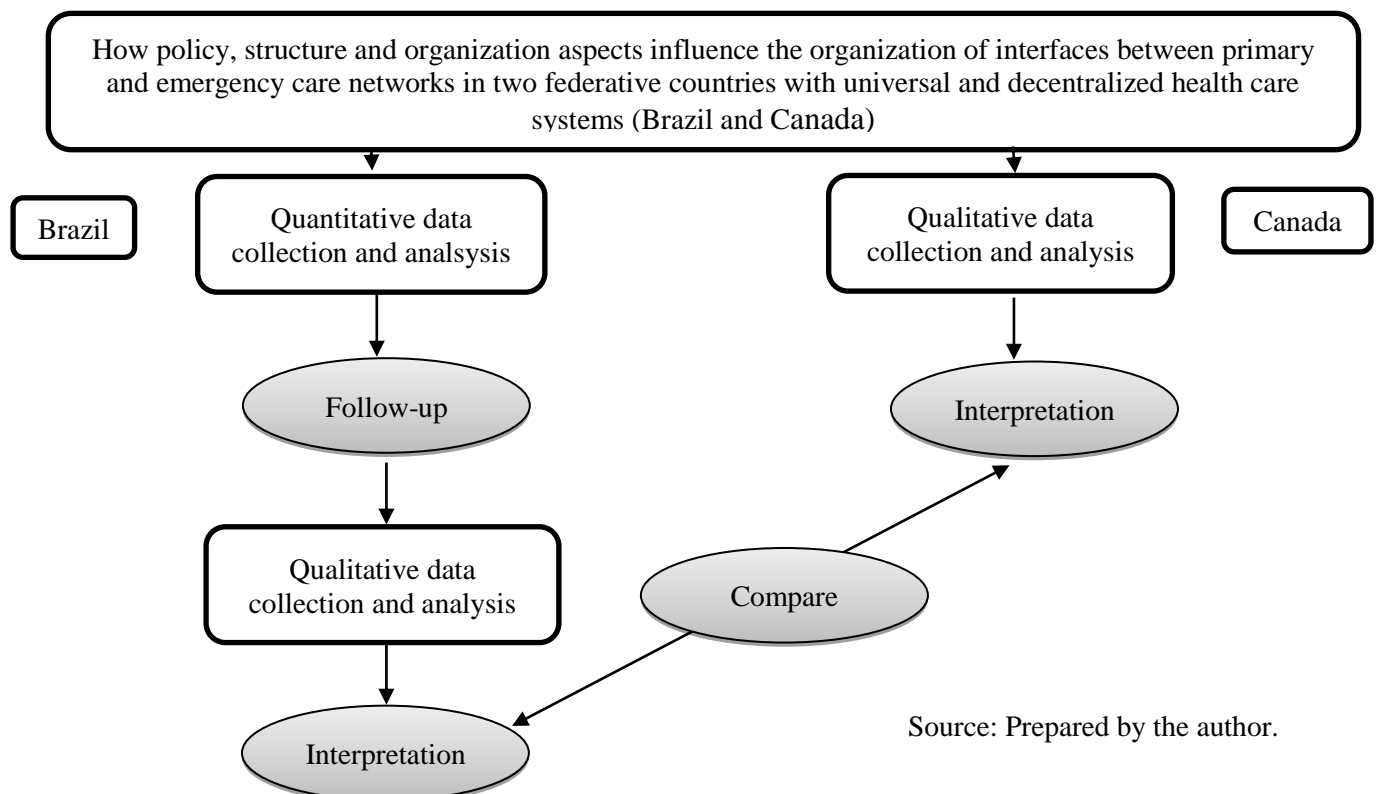
built on to explain them in more detail with qualitative research (Creswell 2014). The quantitative and the qualitative databases are analyzed separately in this approach. Accordingly, the discussion section specifies how the qualitative results from close-ended questions helped to expand or explain the quantitative results from open-ended questions and documents.

This part of the thesis is a result of the research "Policy, Planning and Management of Health Care Regions and Networks in Brazil", financed with resources from the Ministry of Science, Technology and Innovation and the Ministry of Health, through the grant MCTI / CNPq / CT - Health / MS / SCTIE / Decit N° 41/2013.

The choice to perform only qualitative research for the Canadian part of the study is justified by the fact that most health policy research in Canada is conducted with this type of approach, since it provides a greater understanding of the questions by the interviewees.

The results of the data were independently analyzed for both the Brazilian and Canadian parts. The data analyzed were compared for a better understanding of the realities of the different case studies (Figure 2). The articles produced as a result of this thesis presented in detail the methodology used in each study.

Figure 2. Research design and methods.



Source: Prepared by the author.

---

**RESEARCH PROJECT APPROVED BY  
CAPPE SQ**

---

#### **4 RESEARCH PROJECT APPROVED BY CAPPESQ**

University of Sao Paulo  
Faculty of Medicine  
Postgraduate Program in Preventive Medicine

#### **Doctoral Project**

**LIZA YURIE TERUYA UCHIMURA**

*Primary Health and Emergency Care Network:  
Interfaces in health regions in Brazil and Canada*

Research Line: Health Policy, Planning, Management and Evaluation

Supervisor: Prof. Dr. Ana Luiza d'Ávila Viana

SAO PAULO  
2016

### **Abstract**

The Emergency Care Service is a complex network that requires its components to be integrated through transversal points represented by interfaces pervading all components of the network and demonstrating integration of these services. Primary care, however, is not directly integrated with these interfaces. The purpose of this study is to explore the association between policy, structure and organization aspects and the level of integration of emergency care network components in two selected health regions: one in the state of Sao Paulo, Brazil, and another one in the province of Canada. Mixed-methods study involving intentional collection of qualitative or quantitative data and the combination of fundamental variables to achieve the proposed objectives, using data from the semi-structured questionnaire from the “Region and Networks Research”.

**Key-words:** Primary Health Care; Secondary Care; Health Services; Regional Health Planning.



## 4.1 Introduction

### 4.1.1 Health care networks

Brazil has become an extremely urbanized country. In 2010, 85% of the population lived in cities. An intense social transformation has occurred with women taking their places in the workplace and universities. Between 1980 and 2010 the infant mortality rate fell from 69,100 to 16,000 live births. In the same period, life expectancy rose from 62.2 years to 73.4 years (Coelho, Dias, 2015).

The rapid demographic transition associated to the intense urbanization and metropolization of the Brazilian population has triggered significant changes in the epidemiological profile of the people, with persisting issues related to infections, nutritional and reproductive health problems, added to the growing prevalence of chronic diseases, ever-increasing violence and externally-caused diseases suggesting major transformations in the profile of Brazilian society (CONASS, 2015a).

The profile of the Brazilian population has undergone major changes since 1950: reduced growth and aging. Camarano (2014) reports that the declining population growth has negative consequences for the economy, reducing individual wealth. The author maintains that the decline in fertility has occurred due to the lack of a policy for family planning and that there is an inverse relationship between fertility and income by population strata. With an aging population, increased health costs are, according to Camarano (2014), related to the treatment of chronic and degenerative diseases, heightened hospital admission rates and the high average cost of hospitalization.

In view of this scenario of epidemiological and demographic changes and with the aim of ensuring comprehensive care, the policy of the health care networks (HCN) emerged in 2010 and has furthered the regionalization process which began in the early 2000s (Brasil, 2011a).

The HCN was defined as an organizational arrangement of health actions and services, of differing technological densities, integrated through technical, logistical and management support systems (Brasil, 2011b).

In the health care network approach, there is no hierarchy of health services, as all the services are essential to achieving common targets and a comprehensive care (Mendes, 2011).

The HCNs were institutionalized through the publication of Ministry of Health Directive GM/MS 4279 on 30 December 2010 (Brasil, 2010) establishing guidelines as forms of organizing health services. The population, operational framework and health care models are presented as essential constitutional elements of the HCNs. The population group under the responsibility of the HCNs is that bound to the basic health unit, thus restricted to a specific territory. Knowing this population is fundamental to a management based on health needs and indispensable for forming HCNs. The operational framework is constituted by the “knots” that tie the networks. It is composed of the communication center, primary health care, secondary and tertiary care services, support services (Diagnostic and Therapeutic Support Service - SADT, pharmaceutical care system, health information system), logistical systems (electronic health record, regulation systems) and HCN governance system (Mendes, 2011). The third element of the HCN, the health care models, are the systems that organize the networks’ functioning and delimit public health interventions. The health care models can either be for acute events or chronic conditions (CONASS, 2015b).

#### 4.1.2 Thematic Networks

Following the demographic changes of the Brazilian population, five thematic networks were established. The Thematic Networks should be organized according to the health needs of the population and therefore establish a balance between the supply and demand structure (CONASS, 2015b). We underline that, despite being formally established in a 2011 regulation, construction of the emergency care network began in 1999 with the creation of the Mobile Emergency Medical Services (SAMU).

The Ministry of Health agreed to implement the priority thematic networks in the health regions of Brazil. The following table identifies these thematic networks (Maternity Network, Emergency Care Network, Chronic Disease Care Network,

Psychosocial Care Network for people with mental disturbances and needs resulting from drug use, Disabled Care Network) and describes their guidelines/attributes, principles, general objectives, roles of the bodies, components, operationalization, funding, and innovation (figure 3).

Figure 3. Thematic Network in the SUS.

HCN	Ministerial Directives	Guidelines/attributes	Principles	General Objective	Roles of the bodies	Components	Operationalization	Funding	Innovation
Chronic disease care	483/2014	Not described	Access and reception; Humanization; Respect for differences; User-centered care model Coordinated health services; Territorial role - health region; Monitoring and assessment; Interfederative coordination; Public participation; User autonomy Equality; Professional training – Permanent Health Training (EPS) Interlinked regulations	To provide comprehensive care and promote change in the care model	Explains the common and specific roles of each governmental sphere in the network management	PHC; Specialized care:outpatient, hospital and emergency; Support system; Logistical system; Regulation; Governance.	Through the lines of care involving one or more health regions	Not established	None
Maternity/infant care	1459/2011 650/2011 2351/2011 3242/2011 77/2012 1126/2012 1516/2013 904/2013	Not described	Respect, protection and promotion of human rights; Respect for differences; Promotion of equality; Gender focus; Guarantee of sexual	Promote and implement a new care model, organize the network so as to ensure access, reception and issue resolution and reduce maternal and infant mortality with emphasis on neonatal	Not addressed	Prenatal; Childbirth; Puerperium and infant care; Logistical system – sanitary transport and regulation	Adhesion and diagnostics; Regional design of the network; Contractualization of points of care; Qualification of the components; Certification.	Establishes costing and capital	Diagnosis matrix model; New diagnostic exams – fast syphilis and HIV testing; Kits for Basic Health Units

HCN	Ministerial Directives	Guidelines/attributes	Principles	General Objective	Roles of the bodies	Components	Operationalization	Funding	Innovation
			and reproductive rights; Social engagement and participation; Compatibility with activities developed by the states	component.					(BHU), mothers and midwives.
Emergency Care	1600/2011 2026/2011 1601/2011 2029/2011	Expanded access; Guaranteed universal, equal and comprehensive care; Regionalized care; Humanization; Implementation of a multi-professional care model; Service integration and coordination; Territorial role - health region; Professional and management role for qualification of the care; Monitoring and assessment; Interfederative coordination; Social participation; Execution of strategic projects; Interlinked regulations; Qualification of assistance – Permanent Health Training	Not described	Coordinate and integrate all health equipment in order to increase and qualify humanized and comprehensive health service access to users in emergency situations in a quick and timely manner	Not addressed	Health promotion, protection and surveillance; PHC; SAMU; Emergency room; SUS National Health Force; 24/7 Emergency Care Unit (UPA); Hospital Home care	Adhesion and diagnostics; Regional design of the network; Contractualization of points of care; Qualification of the components; Certification.	Establishes costing and capital	Emergency Care Network Steering Committee SUS National Health Force;
People with mental suffering or disturbances and needs resulting	3088/2011 3089/2011 3090/2011 131/2012 132/2012	Respect for human rights; People's autonomy and freedom; Promotion of equality; Fighting social stigmas and	Not described	To increase access; To promote patient and family access to points of care; To guarantee	Not addressed	PHC: BHU, street clinic, temporary home care and living center; Specialized	Regional design of the network; Adhesion and diagnostics; Contractualization of	Establishes costing and capital	Street clinic

HCN	Ministerial Directives	Guidelines/attributes	Principles	General Objective	Roles of the bodies	Components	Operationalization	Funding	Innovation
from alcoholism and use of other drugs – RAPS	148/2012	prejudices; Guaranteed access and comprehensive care; Humanized care; Diversified care strategies; Development of activities in the territory; Social participation; Regionalized network; Promotion of Permanent Health Training; Care centered on unique treatment projects.		coordinated service between points of care		care:CAPS; Emergency CareSAMU, emergency room, emergency care unit (UPA) and first aid; Hospital:general and specialized; Therapeutic residencies; Psychosocial rehabilitation.	points of care; Qualification of the components;		
Disabled people	793/2012 835/2012	Respect for human rights; People's autonomy and freedom; Promotion of equality; Guaranteed access and comprehensive care; Humanized care; Diversified care strategies; Development of activities in the territory; Social participation; Regionalized network; Promotion of Permanent Health Training; Development of clinical research and technological innovation in rehabilitation, coordinated with National Center for Assistive Technology actions.	Not described	To increase access; To promote patient and family access to points of care; To guarantee coordinated service between points of care	Specifies the role of the state steering group and the roles of the Ministry of Health and municipality	PHC; Rehabilitation Center; Orthopedic workshops - local and itinerant; Day centers; Dental care service for the disabled; Home care service; Hospital.	Regional network design and diagnostics; Adhesion to the network; Contractualization of points of care; Implementation and stewardship by the state steering group	Establishes costing and capital	Promotion of clinical research and innovation and itinerant orthopedic workshop.

#### 4.1.3 Emergency Care Network

The progressive increase in demand at accident and emergency units exceeding the available services has been the key motive for reorganization and integration of the system (Rocha, 2005). The National Emergency Care Policy (PNAU) was established in Ministry of Health Directive GM/MS 1863/2003, to organize and plan the care networks, increasing access and reducing inequalities, thus ensuring the right to health with integrated levels of organized emergency care (CONASS, 2015b).

The Ministry of Health began structuring the emergency care service in 1998 with the aim of reducing shortcomings in this mode of care in Brazil, which reported access problems and flaws in the referral mechanisms. According to Machado (2011), the construction of the emergency care policy in Brazil can be divided into three periods: 1998-2002, with the first regulatory initiatives; 2002-2008 with the implementation of the National Emergency Care Policy (PNAU) and prioritization of the SAMU as a strategy; and, finally, since late 2008 with the continuation of SAMU and creation of the Emergency Care Units (UPAs).

Ministerial Directive 1020/2009 established the guidelines for implementation of the Emergency Care Units, responsible for attending to cases of intermediate complexity and set up to establish the link between primary care and tertiary care. The UPA classification system was established according to the size, installed physical capacity, number of beds available, man management and daily capacity (Uchimura et al., 2014).

The UPAs constitute the gateway to health services and depending on the case, it might be resolved there with stabilization of the patient and/or referred to hospitals or Basic Health Units. The UPAs are designed to operate 24 hours a day, carry out patient risk classification, resolve low and medium complexity cases, stabilize serious cases through an adequate physical structure and sufficient technological and human resources to serve the population of its coverage area (Silva et al., 2012).

According to Silva (2011) UPA implementation in the state of Pernambuco entailed the restructuring of the emergency care network, considered a priority on the

managers' political agenda for health. The Emergency Care Units act as a “gateway” to the health system enabling the patient multiple accesses to it. If the reason for seeking care is always the same, some reflections must be made, such as: lack of access to primary care, ineffective or non-comprehensive care; furthermore, if the patient’s complaint has not been characterized as urgent by the UPAs then this may indicate fragility of the link between the user and the health system.

According to the CONASS study (2015a), 27% of the UPAs of the sample taken in seven Brazilian states are located in municipalities with up to 200,000 inhabitants and 47.2% in municipalities with over 500,000 inhabitants. According to the assessment by the UPA coordinators sampled, 60% of the services present a greater demand than the unit’s service capacity. The role played by the State Health Departments in the implementation of the thematic networks, especially the Emergency Care Network, is of great importance. According to a state manager of Minas Gerais, the model proposed nationwide does not function in the state because the sizes of UPAs offer a limited resolution capacity. In the state of Paraná, this resolution capacity is also imprecise due to poor integration between the UPAs and primary care. The highest percentage of integration in this case occurs in 85.7% for hospital and ICU beds. In São Paulo state there were 36 UPAs in 2012, however none in the capital, for a different model for emergency care units was followed to that implemented by the Ministry of Health. In 1988 the Pre-hospital Emergency Program Group was created by the State Department with the objective of implementing an emergency health care program. However, this was developed out of synch with the different levels of care. Funding for UPAs in São Paulo is often taken from resources for the *Santas Casas* (charity hospitals administered by nuns). Therefore, like in Minas Gerais, the capacity of the UPAs is often criticized for not being proportional to the municipality’s population.

The National Emergency Care Policy was reformulated in 2011 with the creation of the Emergency Care Network in the SUS. The documents defined the guidelines for the network, its hierarchical framework, and described in detail its components, interfaces and objectives to be achieved through service regionalization (Silva et al., 2012).



In 2013 Ministerial Directive 3390 established the National Hospital Care Policy, the guidelines of which were aimed at organizing the hospital component of the Health Care Network in the SUS, defining the structural axes of care, training, development, workforce management, funding, contractualization and roles and responsibilities of the management spheres (Brasil, 2013b).

It is known that 80% of the Brazilian population use the National Health System (SUS) to provide for their medical needs, whether for medical consultations, invasive procedures or the supply of drugs (Rajaratnam et al., 2010). Moreover, according to Cecílio (1997), most people feel insecure and abandoned when they require medical and hospital care. The Emergency Care Network emerges to meet the growing demand on emergency services, from the demographic changes in the Brazilian population and growing rate of consultations with external causes (accidents, violence) and chronic diseases (CONASS, 2015b).

In view of the foregoing details, the Emergency Care Network in Brazil is considered a priority strategy for the full development of the right to health determined by the 1988 Constitution.

#### 4.1.4 Primary Health Care

##### 4.1.4.1 The importance of Primary Health Care (PHC)

Primary Health Care (PHC) is presented by Starfield et al. (2005) as the gateway to the health system, with the objective of meeting all the health needs and problems of the individual, offering prevention, cure and rehabilitation services. PHC should also organize and rationalize the use of all the resources, both basic and specialized, directed at health promotion, maintenance and enhancement. It is also asserted that the integrated health systems should act as an obligatory gateway and that they are recognized as less onerous and more suitable for containing progressive outpatient costs (Starfield et al., 2005).

Brazil has increased investments in primary care, with good results for public health, proven by a 2008 study which showed that 57% of Brazilian referred to primary health care as a reference routine health service; whereas for those who frequented hospital consultancies as habitual references the percentages were only 21% to 12% during the same period (Paim et al.,2011).

For its effective operation, PHC has four essential and three derivative attributes. The essential attributes are: first contact; longitudinality; comprehensiveness; and coordination. The derivative attributes, meanwhile, are: focus on family; community guidance; and cultural competence (CONASS, 2015b).

Care at point of first contact results from accessibility of the health service upon the initial emergence of a health issue. The attribute of longitudinality is represented by continuous care. The presence of this attribute enables the execution of earlier and more precise diagnoses and treatments in health. Comprehensive care is aimed at health promotion and disease prevention actions, medical assistance in primary, secondary and tertiary care, links between promotion, prevention and protection actions and, finally, a comprehensive approach at both an individual and collective level in the family. Coordination is defined by links between different health services, synchronized for the sake of a common objective (CONASS, 2015b).

#### 4.1.4.2 Primary Health Care Policies

Among the many challenges faced by PHC in the SUS, the main one is to offer effective services that resolve health issues. To address this question, the Ministry of Health created the National Basic Care Program in (PNAB) in 2006, through Ministerial Directive GM/MS 648, “establishing a revision of the guidelines and standards for the organization of Basic Health Care for Health Community Agents (PACS).” The foundations of this policy are universal and continuous access to effective and high quality services, comprehensive care associating scheduled actions and spontaneous demand actions, guaranteed longitudinal care, investment in health professionals

through training and qualification and the implementation of monitoring, assessment and stimulation of public participation (Brasil, 2006).

In 2011, Ministerial Directive GM/MS 2488 strengthened primary care by means of intersectorial actions aimed at a comprehensive service within the Health Care Networks, the requalification of Basic Health Units (BHU), enhanced management and community participation, permanent training and increased funding. It was through this reformulation of the PNAB that the Program for Investment in Basic Health Professionals (PROVAB) was created, whereby primary health care professionals who work for a year in municipalities with a lack of doctors or where doctors tend not to remain receive a bonus to their medical residency test score. And, in the second year of work, they are given a specialization course in Family Health (Fontenelle, 2012).

Another component of the PNAB and the primary strategy of changes to the operating modes and conditions of the BHU is the National Program to Improved Access and Quality (PMAQ), which has promoted alterations in the method of funding PHC by creating standard levels in increased access, improved work conditions and investment in staff development. Brazilian municipalities have, up to the time of this publication, been reporting high levels of adhesion to the PMAQ, acknowledging a modification in PHC.

#### 4.1.5 Emergency care network components

The emergency care is a complex network that requires components to be integrated through transversal points represented by reception, professional qualification, information, and regulation, defined in the National Emergency Care Policy and pervading all components of the Emergency care network and demonstrating integration of these services. Primary care, however, is not directly integrated with these components, as figure 4 shows, demonstrating the flaw in this system.

Figure 4. Emergency care network in Brazil, 2013.



Fonte: SAS/MS, 2011.

For Harrop (2005) the information systems connected to the emergency care network and primary care can help to build a strategy that molds the network's operation, aimed at a variety of common objectives. Evidence has proven that there is a minimum level of coordination between emergency care services and primary care, even in systems with electronic patient records interconnecting both levels of care. The interfaces should be worked as a whole, from the human resources to the clinical protocols (Carrier, Elsayy, 2011) and, according to Patel and Kushniruk (1998) interface in health care often refers simply to an information system of effective patient records.

The Reception seeks to resolve cases admitted in this network by means of risk classifications, and the Professional Qualification aims to reduce discrepancies in the knowledge of the professionals who work in the different levels of care and improve the health professionals' capacity to establish common objectives in the network and in their training. The Information is aimed at using electronic patient records interconnecting the network, thus facilitating the use of information in the care services. Furthermore, the Information is intended to integrate the different levels of care,

avoiding additional cost. Finally, the Regulation manages the flows and contraflows within the system and the number of hospital beds available.

## 4.2 Comparative study

### 4. 2. 1 Health Region of Barretos, Sao Paulo – Brazil

A case study was conducted into the interfaces of the Emergency Care Network of the Regional Health Department of Barretos (DRS-Barretos). This region was chosen intentionally based on the combination of the factors described below, in accordance with the IBGE classification (2010):

- High socioeconomic development and high/average service provision;
- Predominant provider profile in the region;
- Urban hierarchy and complexity;
- Includes municipalities considered in the QualiSUS-Rede Project;
- Includes municipalities on interstate borders; and
- Medical school in the region.

Furthermore, the sample population met the same criteria established in the purposive sample of the study for the old Regional Health Boards, conducted in 2010, which used the division of the regions into 5 groups according to the economic situation in 2014 and the existence of health services at low, medium and high levels of complexity in the same year. These data were cross-referenced to obtain the following categories:

<ul style="list-style-type: none"> <li>Group 1 (low socioeconomic development and low service provision): This group was composed of 175 regions, 2,159 municipalities and 23.6% of the population of Brazil in 2010.</li> </ul>
<ul style="list-style-type: none"> <li>Group 2 (medium/high socioeconomic development and low service provision): Including 53 regions, 590 municipalities and 7.3% of the population of Brazil in 2010. The majority of these regions were located in the North, Mid-West and Southeast regions of Brazil (North Minas Gerais and Vale do Ribeira in São Paulo).</li> </ul>
<ul style="list-style-type: none"> <li>Group 3 (medium socioeconomic development and medium service provision): Including 123 regions, 1,802 municipalities and 20.1% of the population of Brazil in 2010. Predominantly located in the Southeast and South regions.</li> </ul>
<ul style="list-style-type: none"> <li>Group 4 (high socioeconomic development and medium service provision): Including 35 regions, 388 municipalities and 12.9% of the population of Brazil in 2010. Predominantly located in the Southeast and South regions.</li> </ul>
<ul style="list-style-type: none"> <li>Group 5 (high socioeconomic development and high service provision): Including 50 regions, 630 municipalities and 40.5% of the population of Brazil in 2010. Predominantly located in the Southeast and South regions.</li> </ul>

According to this breakdown, the DRS-Barretos has a total of 18 municipalities and comes under group 5 with the North Barretos health region (10 municipalities) and group 4 with the South Barretos health region (8 municipalities).

The municipalities selected were those with the greatest numbers of healthcare establishments in the North and South regions of Barretos (Olimpia and Bebedouro), the hub city of DRS-Barretos, and the municipalities with the lowest numbers of healthcare establishments in the North and South regions of Barretos with a significant population (Cajobi and Taíuva).

The choice of the Regional Health Department of Barretos was justified by the recent study into the Emergency Care Network in São Paulo State, according to the implementation and performance of the UPAs (CONASS, 2015b). In this study 62 interviews were conducted with managers and healthcare providers in 5 municipalities (Guarujá, São José do Rio Preto, Piracicaba, São Bernardo do Campo and Campinas). The main results include the positive recognition of UPA implementation as an organizing form of the Emergency Care Network in the municipality, the lack of

state level participation in financial support, the need for networked services and the UPA as a form of decentralizing hospital care.

#### 4.2.2 Health Regions in Canada

In Canada the universal health system (Medicare) has undergone constant reforms of its organization in 10 provinces and 3 territories. Primary health care is the user's gateway to the system, reinforcing its functions to promote health and prevent disease, and evaluated in terms of its performance through the medical service activities depending on the province or territory. Furthermore, its function as care coordinator is provided in the continuity of user care (Marchildon, 2013).

In 2000 Canadian primary health care underwent a reform (Primary Health Care Transition Fund) in terms of the organization and framework of the health system. Collaboration between the federal, provincial and territorial levels was essential for its implementation. The targets were redefined to encourage access to primary health services, care coordination and integration, to increase the number of multidisciplinary consultations in clinical services, improve the quality of care, increase self-care by the patient through E-health and enhance the use of electronic patient records thus motivating the health care professionals' performance (Hutchison et al., 2011).

The primary health care reform was stimulated by an increased demand by the population for emergency services (McCusker et al., 2011). There are roughly 12 million emergencies attended to by the Canadian services every year (Pines et al, 2011). Emergency care is provided in a specific accident and emergency service in a hospital or air or road ambulance services (Marchildon, 2013). In comparative studies an increase in the number of emergency service consultations has increased in Quebec (Pines et al, 2011).

Regionalization in Canada has progressed in tandem with the reform of primary health care, and its main objective has been to integrate public services and improve the effective use of resources. Regionalization of the health services was characterized by a process of convergent interests aimed at improving health care and its planning (Artaza-

Barrios et al, 2013). The greatest effect observed in all the provinces and territories was the closure of small hospitals and the increased concentration of services in large regional hospitals. Quebec was the first Canadian province to regionalize its health care services in almost 40 years. In the early 1990s the regional level was created to administrate the province's health system (Schroeder, 2009).

Regionalization in Canada has led to the strengthening of the primary and emergency care interfaces, highlighted by the use of electronic medical records. According to the National Physician Survey of 2013, 63.8% of primary care physicians used the electronic records in their daily routine, with improved productivity and efficiency in patient care. Preventive areas, work practices and work safety were the areas that most benefitted (Grewal, 2014).

In early 1970, with the creation of the walk-in clinic in Canada, following the trend in the United States, cases of urgent and emergency care were referred to these spaces. Within a short period of time the clinics expanded in the Canadian territory and increased the care network, whether or not the services provided were adequate. In a study by Broekhuis et al (2014) a comparison was drawn between family doctors' reports and patients in relation to the use of the walk-in clinics. From the health professionals' point of view the clinics presented an adequate percentage of accessibility, whereas from the patient's perspective the accessibility was low, indicating the inefficient use of the clinics in Quebec.

In 2012 the Commonwealth Fund International Survey of primary care doctors was published and reported that only 30% of primary care doctors received notification from the accident and emergency hospital unit about their patients' being admitted to the service. It is the responsibility of each province and territory to develop the electronic health systems, however there is no national identification number for each patient (Mossialos, 2014).

In recent years Canada has invested in primary care focused on the community and on implementing the dehospitalization process and post-hospital home care. Discussions regarding PHC in Canada date back the 1960s, whereas in Brazil they began only at the end of the military dictatorship. In Quebec, community centers and



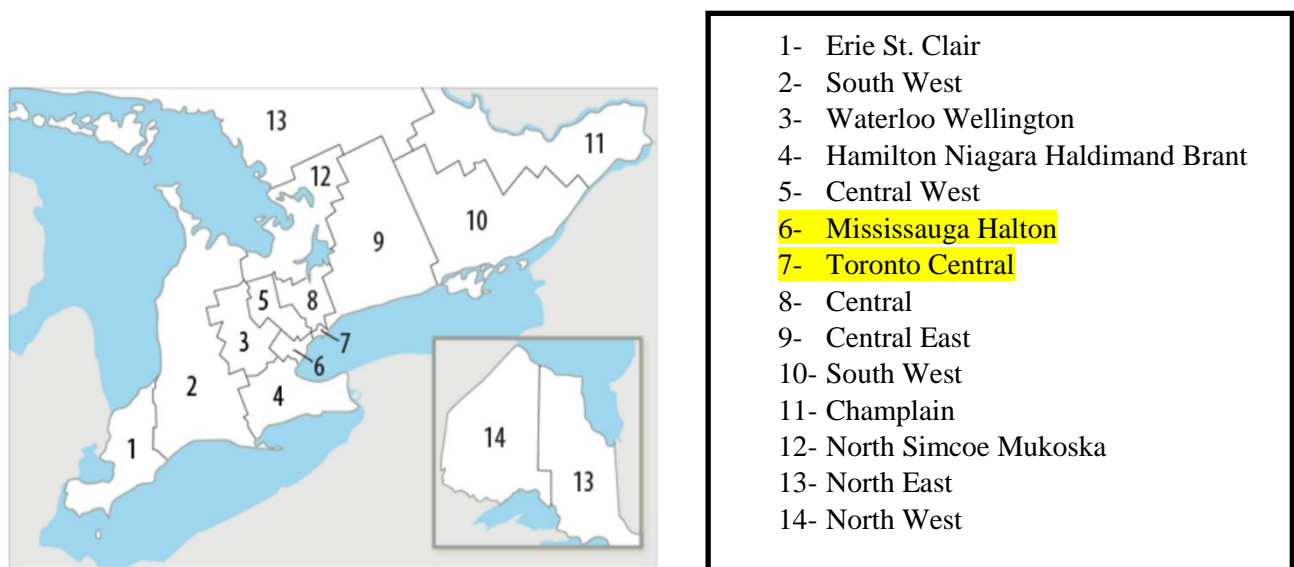
home services have gained great importance since an innovation in 2004 which saw the fusion between Local Community Health Centers and hospital care. The Health Council implements control of the accounting and performance of the health programs and for ten years the general public has had access to the control of these programs and efficiencies of the health teams (Faria, Alves, 2015)

Finally, it also aim to understand the regional dynamics and arrangements of the Canadian health system to help in the comparative study with the Brazilian situation and to enable the implementation of strategies for the development of health management planning and innovations in Brazil.

The Canadian regions were selected because of their high socioeconomic development, their high supply of health services and their diversity of population. In addition, the creation of LHINs in the Province of Ontario through the Local Health System Integration Act was considered in 2006, the same year of the federal law (*Pacto pela Saúde*) that encouraged the process of regionalization in Brazil.

The Province of Ontario, Canada, is divided into 14 health regions - Local Health Integration Network (LHIN). For this study we selected Mississauga Halton LHIN and Toronto Central LHIN (figure 5).

Figure 5. Local Health Integration Network (LHIN) from Province of Ontario, Canada, 2017.



Source: <http://www.lhins.on.ca/>

The Mississauga region Halton LHIN has 900 km<sup>2</sup> and is composed of 5 cities: Halton Hills, Milton, Oakville, Mississauga and South Etobicoke (part of the city of Toronto). The region is subdivided into 7 microregions (sub-LHIN). At the eastern border of this region is Toronto Central LHIN, with the 631 km<sup>2</sup> that make up the central region of Toronto. Due to its diversity of population and concentration of health services, the city of Toronto was divided into 5 LHINs.

#### 4.3 Similarities and differences in the Brazilian and Canadian health systems

The similarities between the two systems include:

- They are both countries organized in a federative manner (subnational spheres with political, administrative and financial autonomy);
- They both have national health systems with universal and free access.
- They both have specific initiatives for the regionalization of the system and service integration through health care networks; and
- They are both countries of continental proportions.

However, there are evident differences between these two countries and how their health care systems are organized:

- In Canada the 10 provinces plus the 3 federal territories are responsible for the organization of the health system; the municipalities play no relevant role. It is important to underline this because it is far easier to manage a system without the constant interference of the municipalities, as occurs in Brazil;
- In Canada there are general guidelines for how the system should work from a national standpoint, but each province has the autonomy to adopt its own organizational arrangements; and

- The experience of regionalization and network structuring dates back many more years in Canada. The first experiences were in the 1970s and there have been constant changes ever since. The most recent were to the provinces of Quebec and Alberta.

#### 4.4 Research question

How policy, structure and organization aspects influence the organization of interfaces between primary and emergency care networks in two federative countries with universal and decentralized health care systems (Brazil and Canada)?

#### 4.5 Objectives

##### 4.5.1 Aim

To identify the aspects that interfere in the establishment of the primary care and emergency care network interfaces in distinct socio-spatial realities (regions) and distinct health care systems.

##### 4.5.2 Objectives

- a) To select and validate the health regions to be sampled;
- b) To identify the primary care and emergency care interfaces in the two services under study;
- c) To compare the primary care and emergency care network interfaces in Brazil and in a Canadian region;

#### 4.6 Methods

To gain a deep understanding of the dynamics and arrangements of the health care networks at both levels of care in the two countries one must first understand how the health care networks are organized and the health policies that are implemented for each region. Therefore, in distinct socio-spatial realities (regions) and in the formation of the health systems, similar and different conditioning factors emerge from the integration of primary and emergency care.

This mixed method study employs quantitative research with rigorous magnitude evaluation and construction of frequencies allied to a thorough qualitative study that explores the meaning and understandings of constructs. It involves purposive sampling of qualitative or quantitative data and the combination of variables that are key for achieving the proposed objectives (Creswell et al, 2011).

The study to be conducted in the Health Region of Barretos will use the questionnaire and research data entitled “Policy, Planning and Management of the Health Care Networks and Regions of Brazil” (Regions and Networks) which has the main objective of assessing, from different theoretical-methodological perspectives, the organization, coordination and management processes involved in the establishment of health care networks and regions, and the respective impact on improving access, effectiveness and efficiency of SUS actions and services. In summary, the idea is to identify the conditions that either favour or hinder regionalization in the states and the formation of health care networks in the macro-dimensions of policy, structure and organization. This study will enable an understanding of the obstacles to be overcome to reduce inequalities in the universalization of health care in Brazil. The study is coordinated by the University of São Paulo School of Medicine and with the participation of other important Brazilian universities and research centres.

The study in Canada will be conducted through documental research, interviews and the administration of questionnaires with health care managers and providers.

#### 4.6.1 Qualitative methodology

The study design for the qualitative method is based on a multicausal perspective, combining and synthesizing top down and bottom up approaches in order to analyze the implementation of policies aimed at regionalization and formation of health care networks.

Top down approaches understand that the actors situated in a single, central decision-making instance exert control over the policymaking process. In the sampling study, this approach aims to identify the direction, reach and limits of federal instigation in the process of health care regionalization. The data collection strategy in this approach is based on broad documental research, interviews and the application of structured questionnaires with key players from the central administrative level.

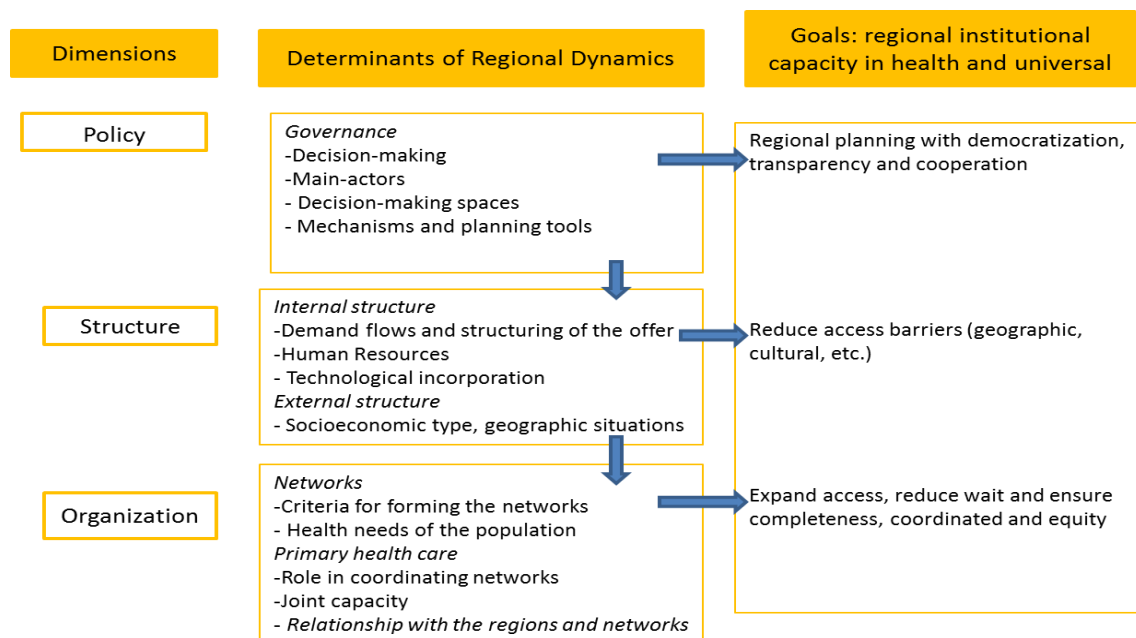
The bottom up approach establishes that policy is not only defined from the central public administration level but is based on analysis of the decision-making networks in which actors engage with each other in policy implementation. In this investigation the bottom up approach is therefore aimed at an in-depth study of determining factors and regional innovations. The fundamental information for this approach will be systematized from face-to-face interviews at the selected sites and with a broad range of interviewees, including representatives of the general society and of the service providers.

As a source of secondary data documental analysis will be adopted, including regulatory documentation (laws, resolutions and ministerial directives) and up-to-date technical records. Other types of document shall also be focused on, such as agreements with care providers and instruments of action by the market and society in health policy (such as, for example, the popular bill of law, and suits mediated by the Federal Prosecution Service).

#### 4.6.2 Quantitative methodology

Data will be collected through semi-structured interviews with municipal and regional managers of these health regions, using a previously-tested semi-structured form. The questionnaire is split into 3 macro-dimensions: policy, structure and organization (figure 6). The structure macro-dimension has blocks with questions about installed capacity, available human resources, contracting of human resources, financial resources, contracting of services, planning/monitoring and assessment of services and trackers of arterial hypertension/diabetes mellitus/stroke. The macro-dimension of organization is subdivided into criteria blocks for the formation of networks, management of the HCN/ECN/PHC, implementation of HCN/ECN/PHC, systemic integration of HCN/ECN/PHC, ECN regulation, access, service practices and trackers of strokes. The macro-dimension of policy has blocks related to the spaces of engagement/negotiation/decision and conflict, processes and decision-making flows and functions related to the execution of health policy, spaces of engagement/negotiation/decision and conflict for the networks, negotiation, decision and conflict space for primary health care, and the incorporation of health technologies.

Figure 6. Macro-dimension of policy, structure and organization.



Source: Health Care Regions and Networks Research Project

#### 4.7 Ethical aspects

The study shall be forwarded for appreciation by the Ethics Committee of the São Paulo University School of Medicine, as per Resolution 466/2012-CNS. Furthermore the matrix design was forwarded to and approved by the Ethics Committee of the São Paulo University School of Medicine (Attachment A). The Free and Informed Consent Form will be presented to all the professionals prior to the interview and shall be signed once the objectives of the study have been presented and explained (Attachment B).

#### 4.8 Schedule

<b>Schedule of actions PhD research</b>	
<b>Month/Year</b>	<b>Activities to be developed in the project</b>
September 2015	Submit the Project to the FMUSP Ethics Committee
October 2015	Fieldwork/Data Collection – Barretos Health Region
Nov/Dec 2015	Data Correction and Cleaning - Barretos Health Region
Jan/Feb 2016	Data compilation
April/May 2016	Data analysis – Barretos Health Region
Aug, 26/2016 – 03/04/2017	Doctoral Studies in Toronto (Canada)
Mar/April/May/June/July 2017	Data Analysis/Discussion of Results
Aug/Sep/Oct 2017	Submit results to Indexed Journals
Nov/Dec 2017	Submit results to Indexed Journals
February 2018	Defense of thesis

The research abroad is planned for 6 months, presented in the stages specified below, which may occur simultaneously.

Stage 1: Planning and organization of the activities.

Stage 2: Theoretical Study (literature review).

Stage 3: Data collection – interviews

Stage 4: Data analysis

Stage 5: Discussion and presentation of the results

Stage 6: Publication of the results.

Stages	Sept 16	Oct 16	Nov 16	Dec 16	Jan 17	Feb 17
Stage 1						
Stage 2						
Stage 3						
Stage 4						
Stage 5						
Stage 6						

#### 4.9 References

Artaza-Barrios O, Toro-Devia O, Fuentes-García A, Alarcón-Hein A, Arteaga-Herrera O. Governance of health care networks: assessment of the health care integrating councils in the context of the health sector reform in Chile. *Salud pública Méx* [serial on the Internet]. 2013 Dec [cited 2014 July 20] ; 55( 6 ): 650-658. Disponível em: [http://www.scielo.org/scielo.php?script=sci\\_arttext&pid=S003636342013001000014&lng=en](http://www.scielo.org/scielo.php?script=sci_arttext&pid=S003636342013001000014&lng=en).

BemerjoPG, PlateroJM, Soria MJ, López JLR, Trescoli C, Tarazona. Gestión Integral de Area de Urgencias y coordinacion com atencion primaria. 2015. Disponível em: [http://www.sld.cu/galerias/pdf/sitios/urgencia/124\\_gestion\\_integral\\_del\\_area\\_de\\_urgencias\\_y\\_coordinacion\\_con\\_atencion\\_primaria.pdf](http://www.sld.cu/galerias/pdf/sitios/urgencia/124_gestion_integral_del_area_de_urgencias_y_coordinacion_con_atencion_primaria.pdf)

Brasil. Ministério da Saúde. Política Nacional de Atenção Básica. Brasília: Ministério da Saúde, Secretaria de Atenção à Saúde, Departamento de Atenção Básica, 2006. (Série Pactos pela Saúde)

Brasil. Presidência da República. Ministério da Saúde. Portaria n. 4.279, de 30 de dezembro de 2010. Estabelece diretrizes para a organização da Rede de Atenção à



Saúde no âmbito do Sistema Único de Saúde (SUS). *Diário Oficial da União*, Brasília (DF), Seção 1, p. 89, 2010, 31 dez.

Brasil. Presidência da República. Ministério da Saúde. Decreto n. 7.508 de 28 de junho de 2011a. Regulamenta a Lei 8.080, de 19 de Setembro de 1990, para dispor sobre a organização do Sistema Único de Saúde (SUS), o planejamento da saúde, assistência à saúde e a articulação interfederativa, e dá outras providências. *Diário oficial da União*, Brasília (DF). 2011a, 29 jun.

Brasil. Presidência da República. Ministério da Saúde. Portaria n. 1.600 de 7 de julho de 2011b. Reformula a Política Nacional de Atenção às Urgências e institui a Rede de Atenção às Urgências no Sistema Único de Saúde (SUS). *Diário Oficial da União*, Brasília (DF). 2011b, 8 jul.

Brasil. Presidência da República. Ministério da Saúde. Portaria n. 1.459, de 24 de junho de 2011c. Institui no âmbito do Sistema Único de Saúde - SUS - a Rede Cegonha. *Diário Oficial da União*, Brasília-DF, Seção 1, 25 jun. 2011c. Disponível em: <[http://bvsms.saude.gov.br/bvs/saudelegis/gm/2011/prt1459\\_24\\_06\\_2011.html](http://bvsms.saude.gov.br/bvs/saudelegis/gm/2011/prt1459_24_06_2011.html)>.

Brasil. Presidência da República. Ministério da Saúde. Portaria n. 1.600, de 7 de julho de 2011d. Reformula a Política Nacional de Atenção às Urgências e Institui a Rede de Atenção às Urgências no Sistema Único de saúde. *Diário Oficial da União*, Brasília-DF, Seção 1, 8 jul. 2011d. Disponível em: <[http://bvsms.saude.gov.br/bvs/saudelegis/gm/2011/prt1600\\_07\\_07\\_2011.htm](http://bvsms.saude.gov.br/bvs/saudelegis/gm/2011/prt1600_07_07_2011.htm)>

Brasil. Presidência da República. Ministério da Saúde. Portaria n. 3.088, de 23 de dezembro de 2011e. Institui a Rede de Atenção Psicossocial no SUS – RAPS (Republicada em 31 dez. 2011, por ter saído, no DOU nº 247, 26 dez. 2011, Seção 1, p. 232-233, com incorreção no original). *Diário Oficial da União*, Brasília-DF, Seção 1, 26 dez. 2011e. Disponível em: <[http://bvsms.saude.gov.br/bvs/saudelegis/gm/2011/prt3089\\_23\\_12\\_2011\\_rep.html](http://bvsms.saude.gov.br/bvs/saudelegis/gm/2011/prt3089_23_12_2011_rep.html)>.

Brasil. Presidência da República. Ministério da Saúde. Portaria n. 793, de 24 de abril de 2012. Institui a Rede de Cuidados à Pessoa com Deficiência no âmbito do SUS. *Diário*

*Oficial da União*, Brasília-DF, Seção 1, 25 abr. 2012. Disponível em: <[http://bvsmms.saude.gov.br/bvs/saudelegis/gm/2012/prt0793\\_24\\_04\\_2012.html](http://bvsmms.saude.gov.br/bvs/saudelegis/gm/2012/prt0793_24_04_2012.html)>.

Brasil. Presidência da República. Ministério da Saúde. Portaria n. 252, de 19 de fevereiro de 2013a. Institui a Rede de Atenção à Saúde das Pessoas com Doenças Crônicas no âmbito do Sistema Único de Saúde (SUS). *Diário Oficial da União*, Brasília-DF, Seção 1, 20 fev. 2013a. Disponível em: <[http://bvsmms.saude.gov.br/bvs/saudelegis/gm/2013/prt0252\\_19\\_02\\_2013.htm](http://bvsmms.saude.gov.br/bvs/saudelegis/gm/2013/prt0252_19_02_2013.htm)>

Brasil. Presidência da República. Ministério da Saúde. Portaria n. 3390, de 30 dezembro de 2013b. Institui a Política Nacional de Atenção Hospitalar (PNHOSP) no âmbito do Sistema Único de Saúde (SUS), estabelecendo-se as diretrizes para a organização do componente hospitalar da Rede de Atenção à Saúde (RAS). *Diário Oficial da União*, Brasília (DF). 31 dez; Seção 1, 2013b.

Broekhuis SM, Van Dijk WD, Giesen P, Pavilanis A. Walk-in clinics in Quebec, Canada: Patients and doctors do not agree on appropriateness of visits. 94 *Family Practice*, 2014, Vol. 31, No. 1

Camarano AA. Novo regime demográfico: uma nova relação entre população e desenvolvimento? Rio de Janeiro: IPEA, 2014.

Carrier E, Elsayy T. Study finds ways to boost care coordination between emergency and primary care providers. June 2011 / *ED Management* 65.

Cecilio LC de O. Modelos tecno-assistenciais em saúde : da pirâmide ao círculo, em: 2009; 25(1):7–28 [citado 18 set 2013]. Disponível em: uma possibilidade a ser explorada. *Caderno de Saúde Pública*. 1997; 13(3):469–78.

Coelho VSP, Dias MF. Saúde e desigualdade no Brasil. In: Arretche M (org). *Trajetórias das Desigualdades: Como o Brasil mudou nos últimos cinquenta anos*. São Paulo: Editora Unesp - Centro de Estudos da Metrópole; 2015. p. 249 -276.

CONASS. Rede de atenção às urgências e emergências: Avaliação da implantação e desempenho das Unidades de Pronto Atendimento (UPA). Brasília: CONASS; 2015a. 400 p. (CONASS documenta; n. 28).

CONASS. Para entender a gestão do SUS 2015. A Atenção Primária e as Redes de Atenção à Saúde. Brasília. 2015b. 127 p.

Faria LR, Alves CA. O cuidado na atenção primária à saúde: preliminares de um estudo comparativo Brasil/Canadá. *Saúde Soc. São Paulo*, v.24, n.1, p.72-85, 2015.

Creswell JW, Klassen AC, Plano Clark VL, Smith KC for the Office of Behavioral and Social Sciences Research. Best practices for mixed methods research in the health sciences. August 2011. National Institutes of Health. Date retrieved. [http://obssr.od.nih.gov/mixed\\_methods\\_research](http://obssr.od.nih.gov/mixed_methods_research)

Fontenelle, LF. Mudanças recentes na Política Nacional de Atenção Básica: uma análise crítica. *Revbrasmedfam comunidade*. Florianópolis, 2012 Jan.-Mar.; 7(22): 5-9.

Grewal G S. Electronic Medical Records in Primary Care: Are we There Yet? *UBCMJ* | september, 2014 6(1).

Harrop, N. Links between systems in Accident & Emergency and primary care. *Informatics in Primary Care*;13:223–6, 2005.

Hutchison B, Levesque J, Strumpf E, Coyle N. Primary health care in Canada: systems in motion. *The Milbankquarterly*. 89 (2): 256-288. 2011.

Machado CV, Salvador FGF, O'Dwyer G. Serviço de Atendimento Móvel de Urgência: análise da política brasileira. *RevSaudePublica*. 2011; 45(3): 519–28.

Marchildon GP. Canada – Health System review. *Health System in Transition*.15(1). 2013. Disponível em: [http://www.euro.who.int/\\_data/assets/pdf\\_file/0011/181955/e96759.pdf](http://www.euro.who.int/_data/assets/pdf_file/0011/181955/e96759.pdf)

McCusker J, Tousignant P, Borgès R, Ciampi A, Levesque J-F, Vadeboncoeur A, SancheS. Factors predicting patient use of the emergency department : a retrospective cohort study. *Canadian Medical Association Journal*. 184(6): 307-316. 2012.

Mendes EV. As redes de atenção à saúde. Brasília: Organização Pan-Americana da Saúde, 2011.

Mossialos E, Wenzl M, Osborn R, Anderson C. The Canadian Health System. In: 2014 Internacional Profiles of Health Care Systems. Disponível em: [http://www.commonwealthfund.org/~media/files/publications/fundreport/2015/jn/1802\\_mossialos\\_intl\\_profiles\\_2014\\_v7.pdf](http://www.commonwealthfund.org/~media/files/publications/fundreport/2015/jn/1802_mossialos_intl_profiles_2014_v7.pdf)

Paim J, Travassos C, Almeida C, et al. The Brazilian health system: history, advances, and challenges. *Lancet*. 2011; 377(9779):1778–97 [citado 11 jun 2015]. Disponível em: <http://www.ncbi.nlm.nih.gov/pubmed/21561655>

---

## RESEARCH ARTICLES

---

## 5 RESEARCH ARTICLES

### 5.1 Article 1 - Contributions on the regionalization process in two regions in the Southeast of Brazil

This article addresses the two objectives of the thesis: (1) to understand the different realities of the universal health systems of Brazil and Canada and; (2) to verify the process of regionalization and the establishment of Health Care Networks in Brazil and in the international context. It demonstrates the influence of regionalization in two health regions in southeast Brazil, in a setting with sufficient installed capacity, funding and health professionals compared to other regions of Brazil. This study provides strong evidence of how this health policy can organize the health care networks. This research article was originally published in the *Revista Brasileira de Saúde Materno Infantil* and can be accessed in open access at the link [http://www.scielo.br/pdf/rbsmi/v17s1/pt\\_1519-3829-rbsmi-17-s1-0S83.pdf](http://www.scielo.br/pdf/rbsmi/v17s1/pt_1519-3829-rbsmi-17-s1-0S83.pdf).

For citation: Uchimura LYT, Ferreira MP, Souza MR, Viana ALd´Á. Contributions on the regionalization process in two regions in the Southeast of Brazil. *Rev. Bras. Saude Mater. Infant.* [online]. 2017, vol.17, suppl.1, pp.S83-S94. ISSN 1806-9304. <http://dx.doi.org/10.1590/1806-9304201700s100005>

Submitted on May 29, 2017

Accepted on September 20, 2017

Published on December, 2017

Open Access

## Contributions on the regionalization process in two regions in the Southeast of Brazil

Liza Yurie Teruya Uchimura <sup>1</sup>

Maria Paula Ferreira <sup>2</sup>

Miriam Regina Souza <sup>3</sup>

Ana Luiza d'Ávila Viana <sup>4</sup>

<sup>1,3,4</sup> Departamento de Medicina Preventiva, Faculdade de Medicina, Universidade de São Paulo, Av. Dr. Arnaldo, 455 2º andar, São Paulo, SP, Brasil. CEP: 01.246-903.  
E-mail: lytuchimura@gmail.com

<sup>2</sup> Fundação Sistema Estadual de Análise de Dados, São Paulo, SP, Brasil.

### Abstract

*Objectives:* to analyze the contributions of regionalization in North-Barretos and South-Barretos regions, focusing on political, structural and organizational changes.

*Methods:* mixed sequential explanatory methods using records analysis from the Comissão Intergestores Regional (CIR) (Regional Inter-managers Commission (CIR), interviews with questionnaire and guides along with 42 key agents (managers and providers of services) conducted in August 2015. The descriptive statistical results were presented with mean scores for each of the question in the questionnaire. The analysis of the thematic content was performed by using the Atlas-ti software and categories of the mixed themes were generated representing the following dimensions: policy, structure and organization.

*Results:* the study identified that the Estrutura Regional da Secretaria Estadual de Saúde (Regional Structure of the State Health Department) is the most important institution in health policy decisions. Several contributions can be identified in the process of regionalization, mainly in the organizational aspect of the health system. The records demonstrated the frequent presence of themes related to networks, regulation and financing and the definition of flow of patients.

*Conclusions:* regionalization in the North-Barretos and South-Barretos regions have contributed for a better organization in health actions and services. The intergovernmental forums do not work with coordination and they are not a collaborative place to negotiate health issues in these regions in São Paulo State

**Key words** Regionalization, Health system, Health policies

## Introduction

In recent years, Brazil presented a reduction of social inequalities, taking into account the distribution of the income in the base population. However, the concentration of cities with higher rates of poverty remains in the North and Northeast regions in the country.<sup>1</sup> Albuquerque *et al.*<sup>2</sup> reported that the regional policies in health assisted in advances to minimize these inequalities through the prioritization of regional strategies intergovernmental organizations and the development of health care services. Other authors reinforce that the regionalization process could be much more developed if there was a better appropriation of territory complexities. In other words, an inclusion of economic, social, political, institutional and individual aspects in the articulations of the regional governance.<sup>3</sup>

The normative surveys and documentary on the *Sistema Único de Saúde* (SUS) (Unified Health System) regionalization show that this health policy has been constructed from a techno-political point of view. There is a need for new regulatory arrangements that definitely guarantees SUS development and health management professionalization.<sup>4</sup>

Despite being present in the constitutional text<sup>5</sup> and identified as one of the attributed key for public health, as the right for all Brazilian citizens, the regionalization only became an effective policy in the year 2000s.<sup>6</sup> From there, it was established that health services should be organized in hierarchical regional networks.<sup>5</sup>

Carvalho *et al.*<sup>4</sup> emphasize the need to build regional policies according to the historical and cultural reality in health management. The regionalization, as an attribute to SUS, has main objectives of: to increase the accessibility and reduce inequalities, strengthen the principles of universality and equity.<sup>7</sup> In recent years, accompanying the regionalization and the regional income growth, it was made possible to identify improvements in the regional distribution of services in medium and high complexity and of the health professionals.<sup>2</sup> According to Canadian experience, regionalization, besides these goals, could define the region as a territory, strengthen the regional authorities and improve the health system organization.<sup>8</sup> Because it is such a dynamic area of cooperation for different agents, the health region represents an area with great potential to build networks with collaborative mobilization efforts.<sup>3</sup>

In this process of implanting health policy, São Paulo State, along with other Federative units in the Country, was responsible for the regionalization

coordination between the Federal Government and the city, adapting to each norm approved by the Federal level and modifying its institutions which is already present.<sup>9</sup> The regionalization in São Paulo State anticipated the National movement with the regional instances foundation before the Constitution of 1988.<sup>10,11</sup>

In 1986, the *Escritórios Regionais de Saúde* (ERSA) (Regional Health Offices) were created and distributed in regionalized and decentralized areas in São Paulo State. The ERSAs constituted a new example in each region to integrate its services from the *Secretaria Estadual de Saúde de São Paulo* (SES-SP) (Secretary of State Health Department in São Paulo) in objective to coordinate and run health programs, as well as evaluate the achieved results.<sup>10</sup>

Aligned with the National Health Policy, São Paulo State in 1995 substituted the ERSAs for 24 *Diretorias Regionais de Saúde* (DIR) (Regional Board Members of Health). In addition, created the *Gabinete de Coordenação da Saúde da Região do Interior* and the *Gabinete de Coordenação da Saúde da Região Metropolitana* (Health Coordination Office in the countryside region and in the Metropolitan Region).<sup>12</sup> Parallel to the National Deployment Process of the *Norma Operacional de Atenção à Saúde* (NOAS) (Operational Norm for Healthcare), the State organized 65 micro-regions, which the final design was similar to the old ERSAs design.<sup>10</sup>

In 2006, with the introduction of the Pacto de Saúde (Pact Health), the SES-SP started a new administrative reform, transforming 24 DIR in 17 *Departamentos Regionais de Saúde* (DRS) (Regional Health Departments). Allied to this reform, the *Coordenação da Saúde* (Health Coordination), de *Coordenação de Serviços de Saúde* (Health Services Coordination), de *Coordenação de Gestão de Contratos* (Contract Management Coordination), de *Coordenação Tecnológica* (Technology Coordination) and even the *Gabinete Estratégico de Entradas de Saúde* (Health Strategic Inputs Office) and *Controle de Doenças*<sup>13</sup> (Disease Control) were created.

In 2010, the Decree Number 4,279 established the guidelines as forms organize the health services, which had been institutionalized through *Redes de Atenção à Saúde* (RAS) (Healthcare Networks).<sup>14</sup> The population, the operational framework and the health care models were presented as essential constitutional elements of RAS.<sup>15</sup>

The Health Ministry with the approval of the Decree Number 7,508 in 2011, reorganized SUS as a regional and hierarchical form, and by the *Termo de*



*Referência* (Reference Term), São Paulo outlined the concepts, criteria and health services in the flow process, creating *Redes Regionais de Atenção à Saúde* (RRAS) (Regional Healthcare Networks). These regional networks were characterized as the “formation of the horizontal, systematized and regulated relation organized among primary care and other points of care in the health system.”<sup>10</sup>

The Decree also established the *Comissão Intergestores Regional* (CIR) (Regional Inter-managers Commission), strengthening the relations between the State and the cities which, until then, had low autonomy in comparison to other policy spheres. There have been regular meetings with representatives of the *Secretaria de Estado da Saúde* (State Health Secretary), all the Health Secretaries of the Cities and various others interested (public or private) in what characterized this regional area of governance.<sup>16</sup>

As mentioned above, some questions were raised: did the regionalization in the North-Barretos and South-Barretos regions contribute to political, structural or organizational aspects? Did the CIR introduce themselves as collaborative spaces for negotiation among the different spheres of the North-Barretos and South-Barretos? Has the regionalization helped improve the health planning?

Thus, this study aims to analyze the contributions of regionalization in the North-Barretos and South-Barretos regions in São Paulo, Brazil, focusing on political, structural and organizational changes.

## Methods

It is a study of mixed methods to employ quantitative methods with magnitude evaluation and construction of frequencies, and qualitative methods that exploit the meaning and the understanding of constructions. The choice to approach mixed methods is justified by a better understanding of the data. The selection of only one quantitative or qualitative study design is insufficient to analyze and interpret the hypothesis of the research.<sup>17</sup> This study is the outcome of this research “*Política, Planejamento e Gestão das Regiões e Redes de Atenção à Saúde no Brasil*” (Policy, Planning and Management in Regions and Healthcare Networks in Brazil), financed by funds from the *Ministério da Ciência, Tecnologia e Inovação* (MCTI) (Ministry of Science, Technology and Innovation) and by the *Ministério da Saúde* (Ministry of Health) by the so-called MCTI/CNPq/CT – Saúde/MS/SCTIE/Decree number 41/2013.<sup>18</sup>

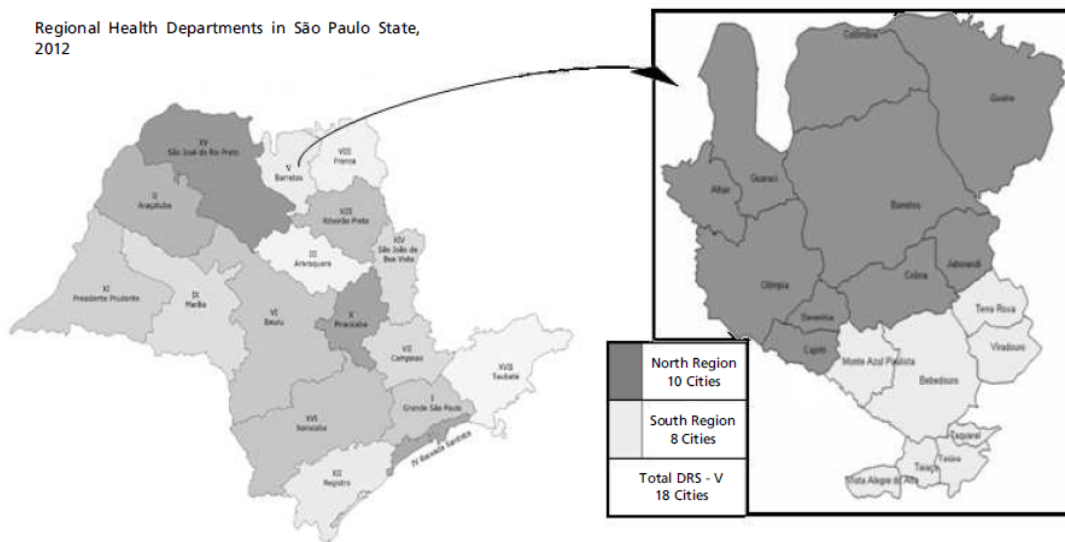
The *Departamento Regional de Saúde-V* (DRS-V) (Regional Health Department V) in São Paulo State has a coverage area of 8,099 km<sup>2</sup>, representing 3.3% of the Paulista territory, divided into two health regions: North-Barretos and South-Barretos. Together, they represent 18 Cities: Altair, Barretos, Bebedouro, Cajobi, Colina, Colômbia, Guaíba, Guaraci, Jaborandi, Monte Azul Paulista, Olímpia, Severínia, Taiaçu, Taiuva, Taquaral, Terra Roxa, Viradouro and Vista Alegre do Alto (Figure 1). These Cities present inferior socioeconomic indicators in São Paulo State, but higher than the National average. In 2015, according to data from the *Cadastro Nacional dos Estabelecimentos de Saúde* (CNES) (National Registry of Health Establishments) in the North-Barretos region has in total nine hospitals and South-Barretos has five of these services. We emphasized the first region, the presence of the *Hospital de Câncer de Barretos* (Cancer Hospital in Barretos) administered by the *Fundação Pio XII* (Pius XII Foundation), a National reference hospital for Oncology patients with exclusive SUS service. In addition to this, this region has an important general hospital, Santa Casa de Barretos. There are 38 registered equipment among the specialized outpatient clinics, the *Ambulatórios Médicos Especialidades* (AME) (Specialized Medical Ambulatories) *Clinico e Cirúrgico da SES-SP* (Clinic and Surgical), whose responsibility is also by the *Fundação Pio XII*. In primary healthcare, there are medical records in 54 health units in the North-Barretos region and 40 in the South with a population coverage estimated at 56.7% by the *Estratégia de Saúde da Família* (ESF) (Family Health Strategy) in both regions.

The North-Barretos and South-Barretos regions were selected intentionally based on a combination of factors: the classification of the *Censo Demográfico 2010* (Population Census), conducted by the *Instituto Brasileiro de Geografia e Estatística* (IBGE) (Brazilian Institute of Geography and Statistics); the *Sistema Único de Saúde* (Public Health System) database available in the Datasus and the *Sistema de Contas Regionais* (IBGE) (Regional Account System). Based on these databases, the variables were selected which represented moderate/high socioeconomic development and moderate/high service offerings; the hierarchy and urban complexity; the presence of cities included in the *Projeto Rede QualiSUS* (Network QualiSUS Project) and the presence of a Medical College.

As a selection criterion, the health regions typology was also used proposed by Viana *et al.*,<sup>19</sup> who adopted the cluster analysis for the socioeco-

Figure 1

Regional Health Department V (DRS-V). São Paulo, 2012.

Source: [www.saude.sp.gov.br](http://www.saude.sp.gov.br)

conomic development, offering and health complexity services in the regional context and as the regionalization structural conditions in Brazil. In this typology, the North-Barretos region fits in group 5 (high socioeconomic development and high service offerings) and the South in group 3 (average socioeconomic development and medium/high range of services). The cities selected were those who reported a greater number of health units in the North-Barretos and South-Barretos (Olimpia and Bebedouro), the main City of the DRS-V (Barretos) and also those with the lowest number of health establishments and a population of at least 3,000 inhabitants (Cajobi and Taiuva).

The data collection was performed with a strategy type sequential explanatory using different sources<sup>17</sup> as the analysis of the CIR meetings, individual interviews with 42 key informants questionnaire and guides for the interviews in the North-Barretos and South-Barretos regions in São Paulo, Brazil. The CIR reports of the North and South Barretos from January to August of 2015 were analyzed. Seven CIR reports were each analyzed

along with an elaborated document of an only meeting in both regions, totaling 15 documents in all.

The interviewees were identified by representing managers, service providers and community representatives in the context of State, Regional and City government spheres. All of them were selected based on the importance of their position at the time of the data collecting, such as Secretaries of City Health, or administrative coordinators in sectors, such as hospitals, primary healthcare, emergency care network, health surveillance, human resources and the distribution of medication.

The interviewees were contacted in advance by phone and/or e-mail to schedule the appointment. These interviews were collected in August 2015 and scheduled an appointment at each interviewee's place of work. In the scheduled day, everyone was informed about the anonymity of the responses and they agreed with the interviews and authorized the recording.

The questionnaires were composed of structured and conducted questions and filled out by the

Table 1

Distribution of number of questions according to the dimensions and types of the interviewees. North-Barretos and South-Barretos regions, São Paulo, 2015.

Dimensions	Questions	Type of interviewees									
		City Manager	Regional Manager	State Manager	City Service Provider	Regional Service Provider	State Service Provider	Society	RUE/ SAMU*	Pharmaceutical Assistance	Health Surveillance
Politics	59	53	53	8	13	17	51	5	7	10	6
Structure	74	44	44	0	31	7	44	0	18	0	16
Organization	80	53	53	0	29	0	32	0	17	0	21
Total	236	173	173	8	94	24	127	5	42	10	43

\*RUE/SAMU = Urgency and Emergency Network /Mobile Urgency Care Service.

researcher. The questions were formulated according to the type of the interviewee; therefore, not all the questions were answered by all the interviewees. The questions were categorized in political, organizational and structural dimensions of the health services (Table 1).

For the State and the Community managers, a guide to the open questions was used. These interviews were transcribed. The researchers read the material repeatedly to make the content analysis, prioritize the questions and establish a relation between them.

The CIR reports reflected on the participation of the 17 representatives of the cities in the region, except for South-Barretos region, which did not participate in any of the meetings. The meetings were generally attended by responsible politicians of the cities, except for the pole city, on behalf of which the representative of the city participated in all the meetings. The CIR reports were read repeatedly to identify the topics of the analysis.

The data were tabulated by using PHP Line Survey - Open Source software. The statistical calculations were performed by using the SPSS Statistics for Windows, Version 22.0 (Armonk, NY: IBM Corp.). The descriptive statistical results were presented as the mean scores for each of the questions, expressed in the *Likert* scale of five points, where one (1) corresponded to the worst score and five (5) to the best. The average scores equal to or greater than 3 indicate a positive evaluation.

The thematic content analysis was performed by using the Atlas-ti software and the categories of themes were mixed generating and representing the following dimensions: politics, organization and structure.

This study was approved by the Ethics Committee at the Faculdade de Medicina da Universidade de São Paulo, through a Decree number. 045/2016, and according to the standard of the *Conselho Nacional de Saúde* (National Health Council) Number 466/2012.

## Results

The study population was constituted by 42 people and 69.7% were females and 30.2% males. In relation to age 47.8% were between 40 and 60 years old, 39.1% were less than 40 years, and the remainder was more than 60 years old. Half of interviewees (50%) worked in the institution for 10 years or less, 23.9% worked more than 20 years, 15.2% were associated to the institution between 11 and 20 years and 11.9% worked less than one year. Of the total number of the interviewees, 82% were graduated in areas of biological sciences, 13% in human sciences and the rest of the interviewees reported having completed high school or did not specify their schooling level.

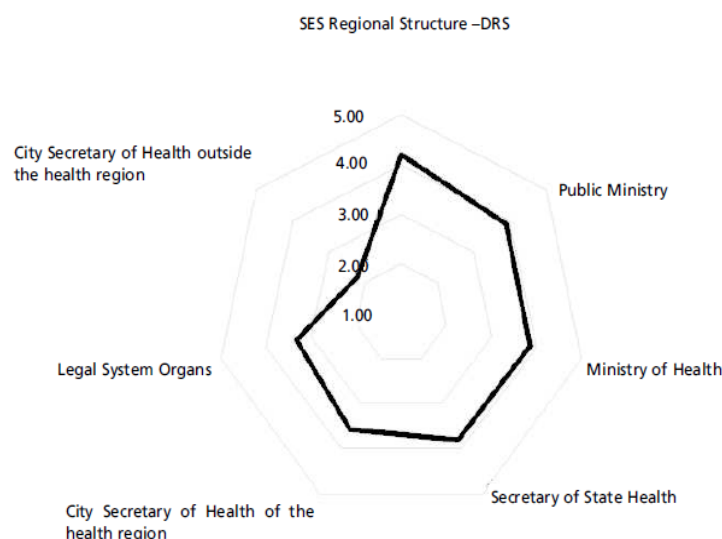
The analysis of the CIR reports showed the frequent presence of themes related to networks, regulation and financing, such as the regional epidemiological situation in relation to dengue, the transference of financial resources among cities and the definition of patients flows and the cancer examinations.

### The Political Dimension

According to 64% of the interviewees, the Regional Structure was the main committee institution organizer in the North-Barretos and South-Barretos

Figure 2

The importance of public organs in decision-making in mean score in North-Barretos and South-Barretos regions, 2015.



regions, but 32% of the interviewees from the City Health Department was cited as the most important. The relevance of the public organs in the health system organization for decision-making in North-Barretos and South-Barretos was classified as follows: Regional Structure (average score - 4.19), the Public Ministry (average score - 3.89), Ministry of Health (average score - 3.86) and the State Health Department (average score - 3.81) (Figure 2).

The public or private health service providers also have influenced on the decisions of health in the regions. According to the interviewees' perception, between health services providers of the institutions in medium and high complexity, they have greater importance in decision-making in the study regions. However, the industries in the health sector have minimal importance on the health decisions in North-Barretos and South-Barretos (Figure 3).

The CIR is predominantly a deliberative space (83.3%). The topics on regionalization were discussed in this CIR with the working groups and commissions in the formal meetings. The agendas for the CIR meetings were defined primarily by the Regional Health Structure (83.3%) and by the City

Secretary of Health (83.3%). For the managers of the Health Secretary of State, the CIR worked only with time scheduled for meeting, without being involved in deliberate issues.

Among the interviewees, they did not mention the relevance of the patients, consultants and universities and/or research centers on the definition of the themes to be discussed at the CIR meetings. The main contributions of the CIR for the North-Barretos and South-Barretos regions were defined as the Healthcare Networks and mediators of conflicts.

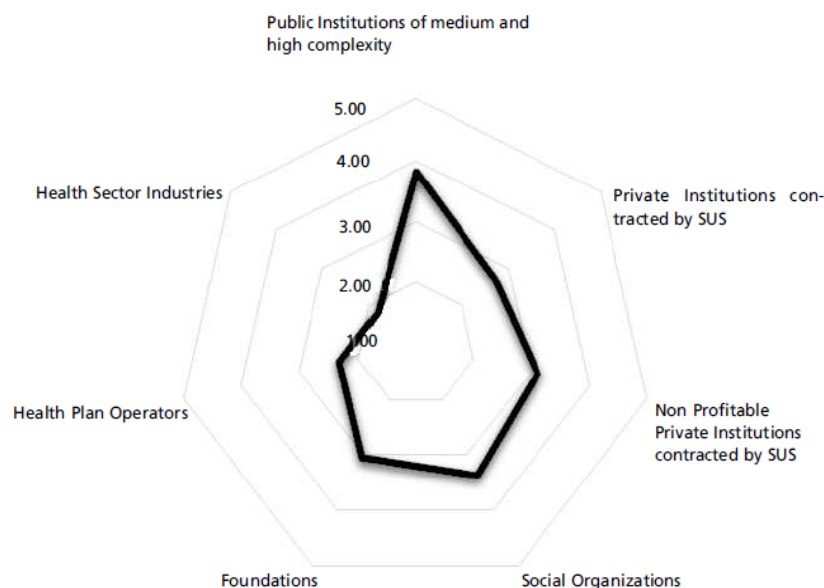
According to the interviewees, there are conflicts in relation to the city and region, especially among the pole city and others, on the resources, criteria to access and organizational network. The CIR reports refer to a complementary relationship to the spatial reconfiguration of services and actions directed to expand and ensure access and coverage among the pole city polo and other cities.

The political dimension was the one that required a fewer discussions at the CIR meetings in relation to the aspects of organization and structure. While themes as the planning instruments were rarely discussed, others, such as the vote on the key



Figure 3

The importance of service providers in decision-making in mean score in North-Barretos and South-Barretos regions, 2015.



agent for the regional representation were more frequent. The CIR meetings also included the choice of the representatives to discuss technical groups (for example, group conductor on primary care) and the representatives of various segments of society (for example, City health councils). In addition, they established the main responsibility for screening on activities that involve the transference of financial resources.

#### The Organization Dimension

Several contributions from the regionalization health process were found mainly in the organizational aspects of the health system. The only meeting between the two sanitary regions was addressed the issue on the health management organization and the approval on the SISPACTO (guideline agreement, goals and indicators), which included agreements on health indices to be achieved by 2015. The discussions were organized by health attendance networks and by representatives of the North-Barretos and South-Barretos regions.

The managers of the State Health Department agreed that the regionalization helped build the region through a territorial understanding, the definitions of flows of patients and their health

needs. According to the interviewees, the major contributions of regionalization in these regions were on the integration of health services and actions, in the expansion of the access in actions and services at the secondary and tertiary levels of healthcare and regulation assistance. However, the health policy did not modify the panorama of social participation and showed a worsening in the improvement on the financial resources distribution.

The interviewees reported difficulties in the governance of the regions that resulted in a deficient epidemiological indicator and the lowest production. Twenty percent (20%) answered about the existence of the *Plano de Regionalização em Saúde* (Health Regionalization Plan). The difficulties of planning and monitoring were informed by the interviewees. The CIR reports describe the difficulties in planning combat strategies on epidemiological emergencies (such as dengue) and is also mentioned the absence of a local manager in the organization of flows of patients and hospital admissions of patients to referred consultations. Many of these problems are related to the increase lawsuits in health material, which has been difficult to make appointments which are designated for managers to address these legal issues:

"... A typical case, pediatric cardiac surgery continues to be a problem and has a waiting list, lawsuits are a challenge on this front ..."

For the formation on Healthcare Network are considered several factors: diagnosis on health necessities (60%), capacity of regional diagnosis installed in the health services (60%), capacity installed in the health services (60%) and regional plan for the increase in the offering on primary care (40%) (Figure 4). Several CIR meetings addressed the installed capacity at the Foundation in pole city and in the organization of regions and considered the RAS formation. However, only 27% of the health managers believe that there is a sufficient installed capacity for RAS.

The main parameter for the network configuration, according to the interviewees, is the population's territorial distribution (average score-4.4). The CIR reports were verified that the populational size in the cities is the main parameter used as a mechanism to distribute quotas among the cities to program elective orthopedic surgeries in a reference hospital in the region. Other parameters were also mentioned as important in building networks (average score - 4.2), such as conditions to have access, transportation or geographical barriers; availability for health services; availability for human resources; financial incentives and the

existence of regional council managing. The existing coverage for health plans was considered a criterion of less important for the network (average score - 3.0) and at any time this discussion was reported in the CIR meetings.

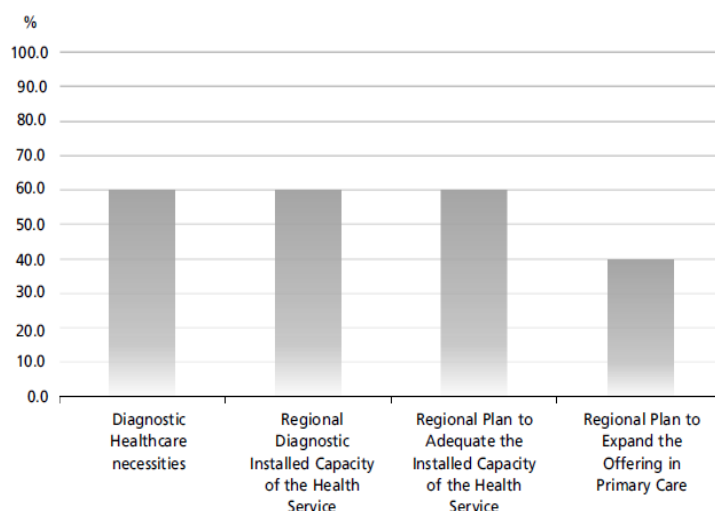
In the reports there are written discussions of referral and counter-referral flows of patients, especially with breast cancer, uterine cervical cancer and patients with melanoma. The mechanisms for referral and counter-referral, the clinical guidelines, the available therapeutic stock and forwarding information were considered integration and coordination mechanisms of RAS.

In regard to the Thematic Networks, all were or are being implemented in the regions with some peculiarities. The *Rede de Obstetrícia e Neonatal (Rede Cegonha)* (Obstetric and Neonatal Care Network-Stork Network) was much better organized in the North-Barretos and South-Barretos because they already had a previous federal regulations organization. The emergency care was the second most well organized, but none have been totally implemented by managers of Health Secretary of State because it involved many complex services. The *Rede Doenças Crônicas* (Chronic Diseases Network) was mentioned as the third best. It was organized based on their lines of care for hypertensive, obese, oncology and kidney disease.

In the reading of the CIR reports, it was analyzed

Figure 4

Considered Criteria in the RAS formation in percentage in the North-Barretos and South-Barretos regions, 2015.



on the most mentioned Thematic Network - the *Rede de Atenção à Saúde das Pessoas com Doenças Crônicas* (Healthcare Network for People with Chronic Diseases) - and, in particular, the *Rede de Oncologia* (Oncology Network) due to the influence of the Foundation in the region. The *Rede de Emergência* (Emergency Network) has been reported in the discussions due to budgetary difficulties or adjustment of clinical cases. The other Thematic Networks were not mentioned during the study period.

### Structured Dimension

For 60% of the interviewees, the RAS management has ensured timely references to other levels of care in the health system, through the resolution of health problems and the guarantee of the quality of care and patient safety. They believe that this has contributed to the definition of the care flow, the integration of service network in the City and the service integration in the region network, in addition to improving the access to primary care.

The CIR meetings discussed the training of teams in primary care attending at clinical and surgical centers, and also mentioned about pharmaceutical care and the capacity of primary health care. Another problem often discussed was the low offering on health services especially for the Cities in the South Barretos region. According to a State manager:

"It (the region) is not self-sufficient, it depends on a many other regions, so this is why it is not characterized as a health region"

The combination of structural factors, such as high demand, capacity of insufficient services and human resources, the difficulties got worse facing a network planning on health care. This became evident after an analysis of the repressed demand for services of magnetic resonance imaging and cataract surgeries. To try to overcome these issues, it is necessary to plan better and optimize the capacity by installing health services, São Paulo State counts on the RRAS administration:

"Care for the disabled is managed through the RRAS, chronic diseases, obesity also through the RRAS, oncology as well, and now there are no plans to chronic kidney disease, which is also managed through the RRAS".

The issue on financing was also pointed out as a problem in the regions. The pole city laboratory reported difficulties in the maintenance of the materials and the cities that have sent samples to the laboratory reported problems in transportation contracts. Another issue referred to financing was related to the non up to date of the rates fee procedure at SUS. In other words, the surgery could cost twice the value reported by the company or by the city. The sub-financial occurred in the major referral hospitals in the North-Barretos and South-Barretos regions discussed in the CIRs. However, for health managers, the investments in the healthcare network over the past three years have increased 66%. The RAS cost was mainly financed by the City Treasury and Federal with little assistance from the State Government.

### Discussion

This study reported the participation of different federative entities in the regionalization process of health in the North-Barretos and South-Barretos regions. As part of the Pacto de Saúde (Health Pact), the solidarity and the cooperative regionalization are placed as a compromise to be guaranteed by the National, City and State Governments to ensure the deployment and provide quality services.<sup>6</sup> According to Carvalho *et al.*,<sup>4</sup> there is a weak institutionalization of the regionalization process whereas the functions of political agents remain imprecise and follows the electoral political cycle.

In this study demonstrated that the leadership of the Regional Structure was represented by the State. For the Pan American Health Organization,<sup>20</sup> the participation of the State Government is essential in conducting regionalization by acting as a mediator in the process. However, there is a fragmentation of the information systems unfeasible in many cases, the State's access to the data of each city, which are sent directly to the National databases.<sup>4</sup>

The analysis results showed difficulties in planning the health actions. Also, we confirm what Vargas *et al.*,<sup>21</sup> had already mentioned: that the formation of health networks was based more in negotiations between the interested parties than in the proper planning. Wickremasinghe *et al.*<sup>22</sup> noticed that for the low income Countries, the data from the information systems on health management were not widely used for decisions making, sometimes because there was a standardized process for their use or because they were poor quality.

In the present study, it was verified that in Brazil



these data exist, but in the existing professionals, they have no ability in how to work on them for health management purposes – which this was also confirmed in a Pernambuco region in Brazil.<sup>21</sup> The *Plano de Regionalização da Saúde* (Health Regionalization Plan) must be an instrumental mechanism, however, to be underutilized for health services and their priorities to make it difficult on the allocation of resources, programmatic and management decentralization. Ribeiro *et al.*,<sup>3</sup> study suggests that the formal use of the *Contrato Organizativo da Ação Pública* (COAP) (Public Action Organizational Contract) to monitor purposes and regional planning by following indicators and health goals were agreed among all agents.

In a similar way as Bergevin *et al.*,<sup>23</sup> study, our study confirmed a greater ownership on the necessities in health of the population for the RAS formation, by improving the regionalization process. The authors mention that regionalization has improved the population's health by expanding the intersectoral approaches that facilitate the dialog among the political representatives.<sup>23</sup> As in the Canadian study,<sup>23</sup> this analysis identified an important contribution of regionalization to integrate the health system, as to improve in the definition of the flow of patients and the regulation of the health services. The Brazilian authors state that the RAS proposal reflects in the recent alignment in the health policy in the Country with International reforms of the universal systems and that the deployment of the RAS has accompanied a different rhythm of the regionalization.<sup>2</sup>

The contribution made by integrating different levels in health care was also confirmed by a study in Denmark,<sup>24</sup> highlighting that the regions and the cities have implemented various initiatives, such as the Pathway programs for chronic diseases, which promotes integrated care. Unfortunately, our study identified that the regionalization did not result a fully regionalized primary care. This is the greatest merit of regionalization in New Zealand, which got this health system organization, creating remuneration strategy for services in the primary care in 2001.<sup>25</sup> In a comparative study between the APS coordination in the RAS between the cities of Lisbon, Portugal, and Rio de Janeiro, Brazil, evidently that Portuguese RAS, for having more time in the deployment, has a more extensive APS and with a better performance in the network coordination, unlikely Rio de Janeiro, which still has a selective APS with difficulties in management.<sup>26</sup>

Despite this lack of primary health care integration with other levels of care, our study

reported efforts in different health services (training for patients referral to specialized centers). Marchildon<sup>27</sup> identified the integration of primary care in Canada as the main obstacle in relation to physicians and regionalized structures. Aerde<sup>28</sup> stated that the absence of medical professionals and citizens in this process were two important factors of badly succeeded regionalization in Canada.

This present study identified the increase of investments for the healthcare network in North-Barretos and South-Barretos regions, but also encountered limitations to verify if the regionalization was possible to reduce costs in the health system. However, International authors reported the impact on the economy scale by reducing the duplication of the health actions, improving the efficiency and, consequently, reduce costs with the regionalization.<sup>23,29</sup> In Italy, the balance of the health budget also was strengthened by the regionalization.<sup>13</sup>

The limitations of this study are related to the statistical data presentation in various scales, sometimes, in absolute numbers or in the average scores from the *Likert* scale by limiting the data cross-checking. The analysis on the CIR reports until the month of the interviewees, could have been hindered due to the lack of monitoring the final decisions on some discussed guidelines that did not have medical referrals until the present study.

## Conclusions

This study allowed us to conclude that regionalization in the North-Barretos and South-Barretos regions contributed more to the organizational aspect of services and health actions. In addition, there was a greater ownership on public health necessity with the RAS formation. The greatest difficulties identified among all the data sources in this study were in the health planning and management due to the lack of qualified human resources in the sector. The regionalization contributed a little for the improvement of the public-private correlation, human and financial resources. Despite the increase in financing funds for health, it was verified that the costs are a burden at the City Treasury without achieving the correct balance between the Federal and State spheres.

The regionalization policy in these regions of the study showed no contributions to a primary health care regional basis organization. International evidence demonstrated the difficulty to apply this health policy in primary care, and the Brazilian studies are confirming this same complexity. In



addition, it was evident that the health region is not an area for a complete integrity care yet, making managers seek new articulations to guarantee care for the patients.

We also concluded that the CIR meetings in the North-Barretos and South-Barretos regions were more deliberative with little space for discussion. Thus, these intergovernmental forums have not fulfilled the role of being a collaborative space for negotiations on health issues in these regions in São

Paulo State.

We emphasize that the regionalization process in the North-Barretos and South-Barretos regions is still incipient and the service organization as a network is still in the implementation process. The training of health professionals in being able to work in a regional scope can assist and contribute to the development of innovations that support deeply the attributes of regionalization, as coordination and the integration of actions and services.

## References

- Arretche M. Trajetórias da Desigualdade: Como o Brasil Mudou Nos Últimos 50 Anos. Editora Unesp; 2015.
- Albuquerque MV, Viana ALD, Ávila, Lima LD, Ferreira MP, Fusaro ER, Iozzi FL. Desigualdades regionais na saúde: mudanças observadas no Brasil de 2000 a 2016. *Ciênc Saúde Coletiva*. 2017;22(4):1055-64.
- Ribeiro PT, Tanaka OY, Denis J-L. Governança regional no Sistema Único de Saúde: um ensaio conceitual. *Ciênc Saúde Coletiva*. 2017;22(4):1075-84.
- Carvalho ALB, Jesus WLA, Senra IMVB. Regionalização no SUS: processo de implementação, desafios e perspectivas na visão crítica de gestores do sistema. *Ciênc Saúde Coletiva*. 2017;22(4):1155-64.
- Brasil. Presidência da República. 1988. Constituição da República Federativa do Brasil. Brasília: Casa Civil. Subchefia para Assuntos Jurídicos.
- Albuquerque MV, Viana ALD. Perspectivas de região e redes na política de saúde brasileira. *Saúde em Debate*. 2015; 39 (n.especial): 28-38.
- Santos AM, Giovannella L. Regional governance: strategies and disputes in health region management. *Rev Saúde Pública*. 2014;48(4): 622-31.
- Lewis S, Kouri D. Regionalization: making sense of the Canadian experience. *Health care Papers*. 2004;5(1): 12-31.
- Guerra DM. Descentralização e Regionalização da Assistência à Saúde no Estado de São Paulo: Uma Análise do Índice de Dependência. [tese]. São Paulo: Faculdade de Saúde Pública da Universidade de São Paulo; 2015.
- Viana ALD. Descentralização e política de saúde: origens, contexto e alcance da descentralização. 2 ed. São Paulo: Hucitec; 2014.
- Paschoalotto MAC. A regionalização do SUS: proposta de desempenho dos Departamentos Regionais de Saúde do Estado de São Paulo. [tese]. São Paulo: Faculdade de Economia, Administração e Contabilidade de Ribeirão Preto, Universidade de São Paulo; 2016.
- Barata LRB, Tanaka OY, Mendes JD. Por um processo de descentralização que consolide os princípios do Sistema Único de Saúde. *Epidemiol Serv Saúde*. 2014; 13 (1): 15-24.
- São Paulo. Secretaria Estadual de Saúde. Diário Oficial do Estado. Decreto nº 51.433, de 28 de dezembro de 2006. Cria unidade na Coordenadoria de Regiões de Saúde, da Secretaria da Saúde, altera a denominação e dispõe sobre a reorganização das Direções Regionais de Saúde. São Paulo, 2006.
- Brasil. Ministério da Saúde. Portaria GM 4.279 de 30 de dezembro de 2010. Estabelece as diretrizes para a organização da rede de atenção do SUS. Brasília; 2010.
- Mendes EV. As redes de atenção à saúde. Brasília: Organização Pan-Americana da Saúde; 2011.
- Viana ALA, Lima LD, organizadoras. Regionalização e relações federativas na política de saúde do Brasil. Rio de Janeiro: Contra Capa; 2011.
- Creswell JW, Clark VLP. Designing and conducting mixed methods research. 2 ed. London: Sage; 2011.
- Região e Redes: o caminho da universalização da saúde no Brasil. Resumo executivo. Disponível em: <http://www.resbr.net.br/a-pesquisa/resumo-executivo/#.WZL571GGM2w>
- Viana ALD, Bousquat A, Pereira APCM, Uchimura LYT, Albuquerque MV, Mota PHS, Demarzo MMP, Ferreira MP. Tipologia das regiões de saúde: condicionantes estruturais para a regionalização no Brasil. *Saúde Soc*. 2015; 24 (2): 413-22.
- Organização Pan-Americana da Saúde. Redes e regionalização em saúde no Brasil e na Itália: Lições aprendidas e contribuições para o debate. Vol. 4, NAVEGADOR SUS - Série Técnica Redes Integradas a Atenção à Saúde; 2011.
- Vargas I, Mogollon-Perez AS, Unger J-P, Da-Silva MRF, De Paepe P, Vazquez M-L. Regional-based Integrated Healthcare Network policy in Brazil: from formulation to practice. *Health Policy Plan*. 2015; 30(6):705-17.
- Wickremasinghe D, Hashmi IE, Schellenberg J, Avan BI. District decision-making for health in low-income settings: a systematic literature review. *Health Policy Plan*. 2016; 31(2): ii12-ii24.
- Bergevin Y, Habib B, Elicksen K, Samis S, Rochon J, Adaimé C, Boucher G, Denis JL, Roy D. Towards the Triple Aim of Better Health, Better Care and Better Value for Canadians: transforming regions into high performing. Canadian Foundation for Health Improvement. 2016.
- Vrangback K. Regionalization from Denmark. *Healthcare Papers*. 2016; 16(1): 21-6.
- Tenbensel T. Health System Regionalization – The New Zealand Experience. *Healthcare Papers*. 2016; 16(1): 27-33.
- Lapão LV, Arcêncio RA, Popolin MP, Rodrigues LBB. Atenção Primária à Saúde na coordenação das Redes de

Uchimura LYT *et al.*

- Atenção à Saúde no Rio de Janeiro, Brasil, e na região de Lisboa, Portugal. *Ciênc Saúde Coletiva*. 2017;22(3):713-24.
27. Marchildon GP. Where we are going from Here? *Healthc Papers*. 2016;16(1): 75-9.
28. Aerde J Van. Has regionalization of the Canadian health system contributed to better health? *Can J Physician Leadersh*. 2016;2(3):65-70.
29. Born K, Sullivan T, Bear R. Restructuring Alberta's health system. [artigo em formato eletrônico]. 2013. [acesso em 12 dez 2016]. Disponível em: <http://healthydebate.ca/2013/10/topic/politics-of-health-care/restructuring-alberta-health>

---

Received on May 29, 2017

Final version presented on September 12, 2017

Approved on September 20, 2017

## 5.2 Article 2 - Integration between primary health care and emergency services in Brazil: barriers and facilitators

This article directly addresses the following objectives of the thesis: (1) to compare the primary health care and the emergency care network of the Regional Health Department-V of the State of São Paulo and the Mississauga and Central Toronto regions, in the Province of Ontario, Canada; (2) to analyze the policy, structure and organization aspects of the integration of primary health care with emergency care. The framework developed in mixed methods design encourages the use of interventions to overcome the aforementioned barriers for integration between primary health care and emergency services in Brazil. This research article was originally published in the International Journal of Integrated Care and can be accessed in open access at the link <https://www.ijic.org/articles/10.5334/ijic.4066/> .

For citation: Uchimura LYT, Silva ACT da, Viana ALd'Á. Integration between primary health care and emergency services in Brazil: barriers and facilitators. International Journal of Integrated Care. 2018;18(4):1–10. DOI: <https://doi.org/10.5334/ijic.4066>

Submitted on March 08, 2018

Accepted on October 24, 2018

Published on November 15, 2018

Open Access

## RESEARCH AND THEORY

# Integration between Primary Health Care and Emergency Services in Brazil: Barriers and Facilitators

Liza Yurie Teruya Uchimura\*, Andréa Tenório Correia da Silva\*† and Ana Luiza d'Ávila Viana\*

**Introduction:** Characteristics of primary health care and emergency services may hamper their integration and, therefore, reduce the quality of care and the effectiveness of health systems. This study aims to identify and analyse policy, structural and organizational aspects of healthcare services that may affect the integration between primary health and emergency care networks.

**Theory and Methods:** We conducted a qualitative research study based on grounded theory that included: (1) interviews with 30 health care leaders; and (2) documental analysis of the summaries of Regional Interagency Committee meetings from two regions in the state of Sao Paulo, Brazil.

**Results:** The integration between primary health and emergency care network is inefficient. The barriers that contributed to this situation are as follows: (1) policy: the municipal health department is responsible for providing primary health care and the regional health department provides emergency care, but there is a lack of space for the integration of services; (2) structural: distinct criteria for planning mechanisms; and (3) organizational: ineffective point of interaction between different levels of the health system.

**Conclusions and discussion:** Our findings have implications for health management and planning in low- and middle-income countries (LMICs) with suggestions for interventions for overcoming the aforementioned barriers.

**Keywords:** integrated care; primary health care; emergency care; systems integration; health systems; health policy

## Introduction, comprising background and problem statement

Integration is the cornerstone of effective health systems with a coherent set of methods and models to connect, align and collaborate within and between health sectors [1, 2], since it enhances the quality of care, and patient safety as well as helping to reduce healthcare system costs [3]. Evidence shows that integrated care can also reduce hospitalization, demand for emergency department and average length of stay [4]. Integrated care has four dimensions (professional, organizational, functional and normative integration) [5] and it is rooted in networks such as organizational structure for the production of services and organizations [6]. The increased discussion about integrated care was caused by the aging population and complications associated with chronic diseases; the rising complexity of skills to provide integral care to patients, and an increase in the specializations from health professions with a consequent fragmentation of care [7].

Integration is particularly important for countries with resource-constrained health systems, such as several low- and middle- income countries, and regions where health inequalities are on the rise. The implementation of regionalized health systems, to overcome the divergence between situational diagnosis (increase of chronic diseases) and the current health actions (directed toward acute pathologies) has led to the creation of the Health Care Network in Brazil [8]. The Health Care Network has been defined as a set of actions and health services, connected through technical, logistical and management support systems [9]. The creation of a Health Care Network with shared responsibility in health care, intersectoral actions and approach on health determinants is expected to improve integration between primary health care and emergency care network.

Studies have shown that the more integrated health systems are, the greater care coordination and hospital effectiveness is [10]. For instance, in Brazil there was evidence of inefficient integration between emergency services and primary health care. In 2011, Brazil implemented walk-in clinics to improve integration and relieve the growing demand for emergency services by reformulating the National Emergency Care Policy to create the emergency care network [11, 12]. The document defined

\* Department of Preventive Medicine, Faculty of Medicine, University of Sao Paulo, BR

† Faculty of Medicine Santa Marcelina, BR

Corresponding author: Liza Yurie Teruya Uchimura, MD, MSc, PhD (lytuchimura@gmail.com)



the guidelines for the network, its hierarchical framework, and described components and objectives to be achieved through service regionalization [11]. Evidence shows that the different services that make up the emergency network, walk-in clinics in the state of Parana [13] and Rio de Janeiro [14] and the mobile emergency medical service (SAMU) [15] are not integrated into the Health Care Network.

Nowadays, the interfaces that integrate primary health care and the emergency network in Brazil are limited to the referral of patients between the two levels of the health system, when it exists, although it is not mandatory, and it is up to the health professional to perform this interface. The lack of patient care coordination, along with the absence of a protagonist for its integration into the Brazilian health system, and the difficulties of the population in passing through the health services show how the interface between primary care and emergency services presents a problem faced by managers and providers. The lack of articulation between the different actors of the health system in Brazil makes it difficult to plan for integrated care based on the health needs of the population, as well as to follow the current health policy. However, a few studies have addressed the integration between primary health care and emergency services in low- and middle- income countries.

Our study examines the integration between the primary health care and the emergency care network in Brazil. We aimed to answer the following questions: (1) Do policy, structural and organizational aspects compromise the integration of primary health care and the emergency care network in Brazil? (2) Do the primary health and emergency care network work properly? Answering these questions and identifying characteristics of health services that affect the integration of these two levels of health care may help provide guidance for the creation of interventions which enhance the quality of care and, consequently, improve healthcare indicators, care management, user satisfaction, and the cost-effectiveness of health systems.

## Theory and Methods

### Study design and participants

We performed a qualitative study, based on grounded theory, with two sources of information: (1) interviews with closed-ended and open-ended questions, and (2) the evaluation of the minutes of Regional Interagency Committee meetings in North-Barretos and South-Barretos from

January to August 2015, the months in which the interviews took place in the regions, totalling 15 documents.

### Study location

The Regional Health Department-V covers 8,099 km<sup>2</sup> and is divided into two regions: North-Barretos and South-Barretos, with 18 cities. These regions were selected as they represent the urban complexity; socioeconomic diversity; the predominant health care provider profile; and the diverse health system situations throughout different regions of Brazil.

Also used as a selection criterion was the typology of the health regions proposed by Viana et al. [16] (North-Barretos is group 5 – high socioeconomic development and high offer of services – and South-Barretos is group 3 – average socioeconomic development and mid/high range of services). The selected municipalities were those that reported the largest numbers of health facilities in North-Barretos and South-Barretos (Olimpia and Bebedouro, respectively), the main city of Regional Health Department-V (Barretos) and those with smaller numbers of health services in significantly populous regions (Cajobi and Taiuva). This study is part of the research “Policy, Planning and Management of Health Care Regions and Networks in Brazil” [17].

The study regions are in the state of Sao Paulo, where socioeconomic indicators are higher than the national average. The main health condition rates in the regions are highlighted in **Table 1**.

Life expectancy at birth in the study regions is higher than the national average. Child mortality rates are lower in the study regions compared to the state of Sao Paulo and national averages, with the index for North-Barretos being the highlight. Elevated rates for conditions linked to chronic diseases, such as mortality from ischemic heart and cerebrovascular diseases, suggest insufficient primary health care. The high mortality rates for neoplasms relate to the presence of the Barretos Cancer Hospital, a nationally renowned cancer treatment service, managed by the Pio XII Foundation.

### Participants and Data collection

The health leaders were identified, including managers, service providers and community representatives, working in primary health care, (advisors, doctors, managers from primary care centres) emergency care networks (directors and doctors from emergency depart-

**Table 1:** Rates of health conditions for North-Barretos, South-Barretos, Sao Paulo and Brazil, 2015.

Rates	North-Barretos	South-Barretos	State of Sao Paulo	Brazil
Life expectancy at birth	74.9	75.02	75.69	73.40
Child mortality	9.78	12.04	11.58	13.51
Mortality due to ischemic heart diseases (100,000 inhab.)	63.96	46.23	67.36	54.08
Mortality due to cerebrovascular diseases (100,000 inhab.)	66.04	62.06	51.61	51.73
Cancer mortality (100,000 inhab.)	127.91	128.06	116.33	98.47

Source: Região and Redes, 2013.

ments; specialized centres, 24 h emergency care clinics, emergency mobile care services) or the management of health care levels in the context of the state, regional and municipal spheres of government (directors from emergency care networks, primary care, hospitals, regulation; Municipal Health Department directors and Regional Health Department directors). They were selected according to the basic tenet of grounded theory: participants who were believed can offer valuable insight into the issue under research [18]. Initially we interviewed two managers, and regarding the information gathered from these interviews we selected further participants. We invited to participate healthcare managers who were working in administrative position at the time of the data collection.

The 28 health leaders were contacted by telephone and/or e-mail to arrange the schedule. The interviews were held in August 2015 at each interviewee's workplace. The health leaders were presented with the questionnaires, which consisted of questions about primary health care and emergency care networks and were conducted and completed by the researcher. The questions for all respondents covered policy, structural and organizational aspects of health systems.

For the policy aspect, we tried to identify the areas of action, negotiation and conflict in the region, the processes, decision flows, and the conduct of the policy and functions exercised by each institution in health decisions in the region. The structural aspect reflects the capacity of health services, monitoring and evaluation of health services, availability and sufficiency of physical, financial and human resources. The organizational aspect presents the criteria for conformation of Health Care Network, planning, management, systemic integration between services, regulation, and access of the population to health care services.

The questionnaire for two state managers featured open-ended questions and the interview followed these questions. The choice of this script for the central level managers of the state is due to the better understanding and maximum depth of the interviewee's different points of view, respecting the principle of the free association of ideas while conducting the interview. These interviews were transcribed. The material was read out repeatedly, followed by thematic content analyses, prioritization of the issues and the establishment of relationships between them. The analysis was performed by two more researchers to ensure reliability.

We chose to analyse the minutes of Regional Interagency Committee meetings from January to August 2015 to contextualize discussions held in previous meetings until the time of the interviews with the managers in these regions. The resulting documents reflected the participation of representatives from the 17 municipalities of the region, except for one from South-Barretos, who failed to partake in any of the meetings. Municipal health secretaries, except in the case of the municipality-hub, attended all the meetings or sent representatives on their behalf. The documents were read repeatedly to present the topics of analysis and thus generate the data.

### Data analysis and ethical aspects

The data were tabulated using the open source PHP software – LimeSurvey. Statistical computations were performed using SPSS Statistics for Windows, Version 22.0 (Armonk, NY: IBM Corp). The descriptive statistical results were presented as the median scores regarding each of the issues, expressed on the five-point Likert scale, where one (1) corresponded to the worst rating and five (5) to the best. Average scores of equal to or greater than three (3) indicated a positive evaluation.

We used the grounded theory as the qualitative research method since it enables researchers to capture and understand health care experiences, it is focused toward building theory and is a method commonly used in health research [18]. Grounded theory has approach to qualitative data an inductive method of developing new theory based on the possibility of interpretation from specific phenomenon to general and it is openness to multiple explanations in the process of generation of qualitative theory [19, 20]. In grounded theory it is possible the continuous categorization comparing with the literature and provides an analysis with a generation of theory, this being one of the characteristics that allowed to be so used in health research [20]. The use of grounded theory is also justified by the pre-existing knowledge about the problem with the simultaneous process of data collection with the analysis, development of categories and codes from the data collected.

Thematic content analysis was conducted using Atlas-ti software and the theme categories were generated representing the following aspects: policy, structure and organization. The thematic analysis was undertaken which followed the principles of grounded theory with learning from the data and not from an existing theoretical vision [21, 22].

The study was approved by the Ethics Committee of the University of Sao Paulo School of Medicine, with case reference number 045/16, and in accordance with National Health Council rule number 466/12.

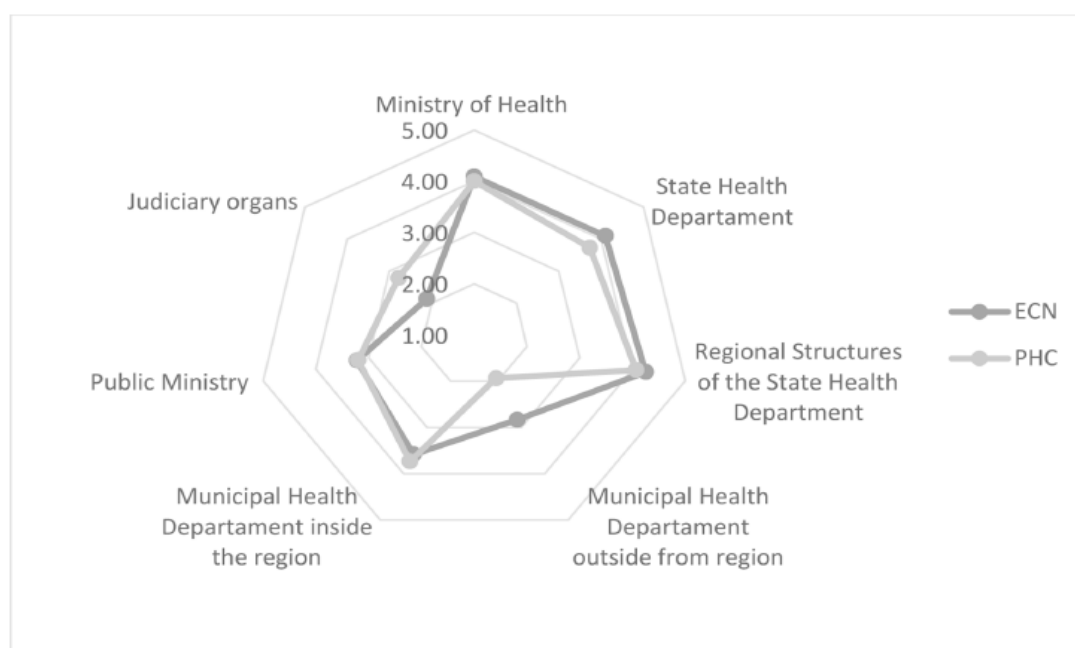
### Results

Most of the respondents answered that the main institution responsible for the organization of the emergency care network in the study regions was the Regional Health Department of the State Health Department (**Figure 1**) also in terms of decision-making at emergency care. On the other hand, the main institution responsible for the decision-making in primary care in these regions was the Municipal Health Department (**Figure 1**).

Regional Interagency Committee and emergency care group advisors were reported as relevant for decisions on emergency care network. Conflicts in decision-making on the emergency care network occurred between the municipalities of the region and between the municipalities and the regional structure. However, according to the State Health Department the Regional Interagency Committee has become a space with little decision-making power:

*"...it has become much more of a space to meet the agenda than deliberations, not involving a good part*





**Figure 1:** Main institution responsible for the decision-making in primary health care (PHC) and the emergency care network (ECN), North-Barretos and South-Barretos regions, 2015.

Source: Prepared by the authors.

*of the important people from the municipalities, so at some Regional Interagency Committees you have someone from the municipality who is going to meet the schedule but not comply with the role of deliberation..."*

Regional Interagency Committees, National Councils of Municipal Health Departments and Health Councils were defined as relevant spaces for decisions in primary health care. Conflicts in decision-making concerning primary health care occurred between the municipalities of the region and the Regional Health Department, between public managers and health professionals and between specialist doctors and other health professionals.

Summaries from the Regional Interagency Committee of North-Barretos demonstrated that the emergency care network was discussed more in comparison to primary health care. The latter had not been discussed in relation to service coverage but rather regarding professional training in exams like the red reflex test. At the Regional Interagency Committee of South-Barretos, primary health care was discussed more compared to the emergency care network, and most of the themes were about the organization and professional training.

The planning of the emergency care network considered the regional service provision plan, as well as medical and therapeutic support. According to the interviewees, the most commonly used criteria for this planning were the diagnosis of health and the installed capacity of health services. The State Manager added that the organization of this network had different ways of planning and organization between the North-Barretos and South-Barretos regions due to the pre-existing services and the financing of each one:

*"... the emergency care network did not have this character to emerge even from the municipalities. They already have several structures. North-Barretos already has SAMU and some municipalities already have walk-in clinics; The Santa Casa Hospital in Barretos has always been highly regarded for emergency care. South-Barretos has not; ... is very much – despite being a region of rich municipalities in terms of health equipment, they are precarious, they have nothing of high complexity in the territory, do not do any high procedure."*

Only 44% of the health leaders identified formal coordination for the emergency care network in these regions, composed of the State Manager, Municipal Managers and health providers. Moreover, there is little definition of the roles and functions of federal and state managers and even less so for the municipal ones. For the State Manager, the presence of a well renowned and important health provider in this region demonstrates how this Foundation is important for the organization of regional services:

*"...the Pio XII Foundation in the region of Barretos is admittedly an institution of national importance, not only regional, not only state, but of national importance..."*

The organization of primary care contemplated the diagnosis of health care needs, the Regional Plan for service provision and diagnostic and therapeutic support. Health leaders agreed that primary care has guaranteed prompt care for the people who use these services. The analysis of the minutes from the Regional Interagency Committee

meetings demonstrated a scenario with a deficiency of primary health care, in relation to the appropriation of the population's health needs, and primary care for cases of suspected or diagnosed dengue, with difficulties to control the disease vector and promote appropriate care. Important differences and similarities were identified between primary health care and the emergency care network in the regions studied; below we show the main themes (Table 2).

According to 58% of the interviewees, there was integration of primary health care with the emergency care network. However, only 19% answered that there was a referral and counter-referral mechanism from the emergency services to primary health care. Despite this, 62.5% of respondents stated that there was integration with emergency services and that there had been improvements in the health system to manage this network. The definition of care flows is the emergency care network's main contribution to these regions. However, no document, between January and August 2015, contained any reference to integration between these two levels.

Emergency regulation addresses the need for access and the demand for beds and contributes to the planning and organization of the network. This operated at state level for 90% of the respondents, and with well-defined protocols and flows for 80% of the respondents. The main themes discussed at the Regional Interagency Committee about emergency care network formations were the geographical coverage of health services (77%), health service providers (66%), and regulation (66%). The regulation cited in the summaries is related to the redefinition of the quotas of each municipality for referral to the reference hospitals of the municipality hub for exams and flows of authorizations for hospital admission in the region.

Emergency providers in North-Barretos and South-Barretos can be evaluated based on their production target (25%), productivity (25%), results (25%) and quality target (12.5%). The services are evaluated through performance indicators. However, the results of monitoring and evaluation are only used by a few managers in the network planning (average score: 2.1). The monitoring and evaluation process is carried out for municipal managers (78%), state managers (67%), Regional Interagency

Committee coordinators (67%), regional emergency coordinators (55%) and state emergency coordinators (44%). This process involves little participation by regional, state and municipal regulation coordinators and by the state health council.

Primary health care teams from North-Barretos and South-Barretos were responsible for the main activities: prenatal consultations and cytopathological examination. In summary, the most cited activities related to primary health care included: training for physicians to improve the diagnosis of melanomas and mental health diseases; oral cancer training for dentists; and the recruitment of new community health agents. Despite these activities, the State Manager stated that primary care is not fulfilling its role as a coordinator of care and most of emergency service appointments could be performed in the primary health care services:

*"...oversized emergency service structures reinforce a distortion of the model, the role of primary health care is not being fulfilled, creating a high demand for the walk-in clinics and emergency departments."*

The funding of primary health care and the emergency care network in the study regions shared the same features. Municipal coffers provided the bulk of the funding, followed by federal resources and a smaller contribution from the state level. State managers agreed that there had been no improvements in these two levels of the health system.

According to 64% of respondents, primary care subjects discussed by the Regional Interagency Committee are related to the coverage of services, funding, and coordination with the network. Among the interviewees, 58% referred to the comprehensiveness of care, 53% to human resources, and 47% to the scope of action at this level of care. Summary documents reflected a different view; there were more reports of pacts between emergency services and their funding. The minutes from Regional Interagency Committee demonstrated that primary health care had not been discussed in relation to service coverage, but rather regarding professional training, and most of the themes were about the organization and professional training.

**Table 2:** Differences and similarities between primary health care and the emergency care network in the North-Barretos and South-Barretos regions, 2015.

	Primary Health Care	Emergency Care Network
<b>Services</b>	Primary Care Centre, Family Health Support Centre (NASF), Outpatient medical specialties	Emergency Departments, Walk-in clinics
<b>Interfaces</b>	Primary Care Centre	Walk-in clinics
<b>Institution responsible for organization</b>	Municipal Health Department	Regional Health Department
<b>Space for decisions</b>	Municipal Health Department	Regional Health Department
<b>Conflicts for decision making</b>	Municipalities vs. Municipalities	Municipalities vs. Regional Health Department
<b>Planning</b>	Diagnosis of health needs	Regional Plan for the provision of services

Source: Prepared by the authors.



The data collected in the interviews and the analysis of the summaries allowed us to identify facilitators and barriers for the integration of health care between primary care and emergency services (Table 3). We consider factors that facilitate the integration of care into important tools for strengthening the health system.

### Discussion

Through our data sources, we suggest a grounded theory for the integration of primary care with emergency services in Brazil based on the identification of policy, structural and organizational aspects. We observed in our study the challenges of integration with limitations for total consolidation. In the policy aspect the main difficulty identified is in the different institutions that organize these two levels of attention. In the structural aspect the incompatibility of planning mechanisms and in the organizational aspect the uncommon points of interfaces in the health system. On the other hand, the identification of facilitators for this integration according to the perception of several data sources highlights the importance of the study for regional policy and to integrate care.

The organization of primary health care by the Municipal Health Department and the emergency care network by the Regional Health Department demonstrates difficulties for the same institution to maintain this planning. Other studies in these regions [23, 24] have confirmed the regional institution as the main service organizer in this area.

Our results have shown that planning for primary health care and the emergency care network is incipient and fragile in relation to the health needs of the population. There is also evidence of minimal monitoring and evaluation of health indicators. One successful experiment that built this model, centred on patients and health care needs, was a network of researchers, clinicians, and managers. The union of academic and clinical activities helped in planning the integration of primary health care and emergency care networks [25].

The integration of interfaces in primary health care with the emergency care network is limited to referral and counter-referral mechanisms, and in most cases is dependent on the health professional, rather than being a standardized activity in the system. While making therapeutic itineraries with stroke patients in the same

regions, Bousquat et al. [23] reported similar results with no communication between services and professionals at different levels of assistance. They confirmed through interviews with patients in this clinical state that there are no mechanisms of continuity of care and care flow or vertical integration.

The recognition of different interfaces highlights the problems of access to health care and non-continuity of care. An example of this is when patients receive care at walk-in clinics and are not referred for follow-up at the primary care centre. In case studies by Almeida et al. [26], in municipalities in Brazil and Spain, the counter-referral grounds were also demonstrated and justified according to the patient's preference in relation to specialized care, isolation between professionals of the two levels of care, underqualification of the primary care physician and the difficulties experienced by professionals in recording clinical data.

Our study identified that the largest contribution made by the emergency care network was the definition of flows, even with partial integration between network components. Planning the integration of interfaces from health system services involves the responsibility of different actors involved and considers geographical factors, historical relevance and organizations leadership. Brown and Oliver-Baxter [5] suggest this planning, based on dimensions, to obtain an optimal integration of the health system. The professional dimension should carry out different partnerships among health professionals and thus align their competencies, responsibilities and knowledge. The organizational dimension suggests that there is a sharing of governance mechanisms to define the best care for the population. The functional dimension aims to support the financing and health information system. Finally, the normative dimension is aimed at common goals among organizations and health professionals in the health system. Topp and colleagues [27] have identified that the integration of health systems in low- and middle-income countries relies on functional health services, trained and motivated health professionals, the availability of appropriate tools to enhance the integration of services, and processes which are flexible according to local circumstances.

For Harrop [28] the information systems connected to the emergency care network and primary health care

**Table 3:** Facilitators and barriers to the integration of primary health care and the emergency care network by policy, structure and organization aspects, 2015.

Integration between primary health care and emergency care network	Facilitators	Barriers
Policy aspect	Regional Interagency Committee	Lack of integration between the municipal health department and the regional health department in order to provide comprehensive care
Structure aspect	Sufficient funding	Distinct criteria for planning mechanisms
Organization aspect	Professional training (Pio XII Foundation)	Ineffective interfaces: there is no integration between services

Source: Prepared by the authors.

can help to build a strategy that moulds the network's operation, aimed at a variety of common objectives. Evidence has proven that there is a minimum level of coordination between emergency care services and primary care, even in systems with electronic patient records interconnecting both levels of care. The interfaces to integration should be operated as a whole, from the human resources to the clinical protocols [29] and, according to Patel and Kushniruk [30] the term 'interface' in health care often refers simply to an information system of effective patient records.

Asante and colleagues [31] point out that in recent years primary health care has benefited mainly the poorest populations, while the hospital services have benefited the better-off in low-and middle-income countries of sub-Saharan Africa, the Asia-Pacific region, Latin America and the Middle East. They concluded that health care financing in LMICs favoured people with better socioeconomic levels even with investments in primary care to increase equity. In addition, other authors report that most primary care programs in LMICs have components, such as improved access, and effective and long-term care, for a financial reform based on the health needs of their population [32].

The identification and development of spaces for the governance of health services, whether national or sub-national, are important mechanisms for the integration of health systems in LMICs [29]. Regional Interagency Committee meetings should be this space in North-Barretos and South-Barretos, however, they proved to be more of a deliberative space with few discussions. In addition, there were some disagreements among the interviewees with the reading of summaries. Other studies in different regions of Brazil revealed the same characteristics as the Regional Interagency Committee which we analysed [33, 34], however, this forum acts as an important indicator of the effectiveness of regionalization [35, 36].

Vargas et al. [37] affirmed that any effective implementation of Health Care Network in Brazil is dependent on negotiation, the division of responsibilities among managers, and on an increasing participation at state and federal levels; suggesting a strengthening of the regional structure. Brown et al. [38] report dissatisfaction among various system components with the evaluation of the patient results and with their service providers' responses in the health systems. It has been found that regionalization is not a health policy or process that is sufficient for the integration of optimal care and services, nor for efficient coordination and regulation. Viana et al. [39] affirmed that regionalization is a new culture for the provision of health care, with improvements in the availability of health services and actions in order to provide integrated care with good use of resources and economically.

## Conclusion

Policy, structural and organizational aspects influenced the integration between primary health care and emergency care networks. We found that the barriers for the integration between primary health care and the

emergency care network were: (1) the municipal health department being responsible for providing primary health care and the regional health department being responsible for providing emergency care, however there is lack of space for the integration of services; (2) distinct criteria for planning mechanisms – diagnosis of health needs are used in primary health care and Regional Plan for the provision of services to the emergency care network; and (3) ineffective interfaces between different levels of the health system, meaning there is no integration and no continued care. We identified that, the policy of regionalization with health care networks is not aligned with the needs of the population or the capacity for integration and coordination of care at different levels of the health system.

We suggest the following interventions to overcome the aforementioned barriers: (1) improving the coverage of primary health care may improve the integration between primary care and the emergency network; (2) binding responsibilities of integration between primary care managers and emergency services; (3) health planning focused on the health needs of the population at both levels of the health-system; (4) well-defined interfaces and services between primary care and emergency services; (5) actor responsible for the integration of care at different levels of health care, and health professionals able to work with these interfaces. For future health policies in Brazil, it is necessary to include recommendations about dealing with these challenges in the National Primary Health Care Policy and the National Emergency Care Policy.

Healthcare managers should integrate the different health services and share knowledge of population health diagnosis. The fragmentation of health management is reflected in the fractionation of health care. We believe that in order to achieve efficient integration among healthcare services, stakeholders and policy makers should prioritize standardized rules of high performance management, teamwork forums, leadership training courses and programs for monitoring each dimension of integration (professional, organizational, functional and normative integration).

## Reviewers

Reynaldo Holder, International PAHO Consultant, Health Systems Department, Health Services and Access Unit. Pan American Health Organization (PAHO).

One anonymous reviewer.

## Funding Information

This study was supported with a PhD grant by the National Council for Scientific and Technological Development (CNPq), Brazil.

## Competing Interests

The authors have no competing interests to declare.

## References

1. Shaw, S, Rosen, R and Rumbold, B. An overview of integrated care in the NHS. What is integrated care? Research Report. *Nuffield Trust*, 2011 June; 1–22.



2. **World Health Organization (WHO).** Integrated care models: An overview. Health Service Delivery Program, Division of Health System and Public Health; 2016.
3. **Konder, DL and Spreeuwenberg, C.** Integrated care: Meaning, logic, applications, and implications—a discussion paper. *International Journal of Integrated Care*, 2002; 2(4): None. DOI: <https://doi.org/10.5334/ijic.67>
4. **Hammar, T, Rissanen, P and Perala, ML.** The cost-effectiveness of integrated home care and discharge practice for home care patients. *Health Policy*, 2009; 92(1): 10–20. DOI: <https://doi.org/10.1016/j.healthpol.2009.02.002>
5. **Brown, L and Oliver-Baxter, J.** Six elements of integrated primary healthcare. *Australian Family Physician*, 2016; 45(3): 149–152.
6. **Albuquerque, MV and Viana, ALD.** Perspectivas de região e redes na política de saúde brasileira. [Regional perspectives and networks in Brazilian health policy]. *Revista Saúde Debate*, 2015; 39(n. especial): 24–34. [in Portuguese]. DOI: <https://doi.org/10.5935/0103-1104.2015S005390>
7. **Sun, X, Tang, W, Ye, T, Zhang, Y, Wen, B and Zhang, L.** Integrated care: A comprehensive bibliometric analysis and literature review. *International Journal of Integrated Care*, 2014 June; 14: e017.
8. **Guerra, DM.** Descentralização e Regionalização da Assistência à Saúde no Estado de São Paulo: Uma análise do Índice de Dependência [Decentralization and Regionalization of Health Care in the State of Sao Paulo: Analysis of the Dependency Index]. Doctoral Thesis. Sao Paulo. Faculdade de Saúde Pública da Universidade de Sao Paulo; 2015. [In Portuguese]. DOI: <https://doi.org/10.11606/T.6.2016.tde-16112015-112549>
9. **Brasil.** Presidência da República. Ministério da Saúde. Reformula a Política Nacional de Atenção às Urgências e institui a Rede de Atenção às Urgências no Sistema Único de Saúde (SUS). [Reforms the National Policy of Attention to the Emergencies and establishes the Emergency Care Network in the United Health System]. Portaria n. 1.600 de 7 de julho de 2011. Diário Oficial da União, Brasília (DF); 2011, 8 Jul. [In Portuguese].
10. **Wan, TTH, Ma, A and Lin, BYJ.** Integration mechanisms and hospital efficiency in integrated health care delivery systems. *Journal of Medical Systems*, 2002; 26: 127–143. DOI: <https://doi.org/10.1023/A:1014805909707>
11. **da Silva, GS, Samico, I, Dubeux, LS and Felisberto, E.** Redes de atenção às urgências e emergências: Pré-avaliação das Unidades de Pronto Atendimento (UPAs) em uma região metropolitana do Brasil. [Networks of attention to emergencies: Pre-evaluation of walk-in clinics (UPAs) in a metropolitan region of Brazil]. *Revista Brasileira Saude Materno Infantil*, 2012; 12(4): 445–458. [in Portuguese]. DOI: <https://doi.org/10.1590/S1519-38292012000400011>
12. **Brasil.** Conselho Nacional de Secretários de Saúde (CONASS). Rede de Atenção às Urgências e Emergências: Avaliação da Implantação e do Desempenho das Unidades de Pronto Atendimento (UPAs). [Emergency Care Network: Assessment of the Implantation and Performance of walk-in care (UPA)]. Brasília: CONASS, 2015; 401. [in Portuguese].
13. **Uchimura, LYT, Viana, ALD, da Silva, HP and Ibañez, N.** Unidades de Pronto Atendimento (UPAs): Características da gestão às redes de atenção no Paraná. [Walk-in clinics (UPAs): Characteristics of management to health care networks in Paraná]. *Saúde Debate*, 2015 Dec; 39(107): 972–983. [in Portuguese]. DOI: <https://doi.org/10.1590/0103-110420151070253>
14. **Konder, MT.** A integração das Unidades de Pronto Atendimento (UPA) com a rede assistencial no município do Rio de Janeiro, Brasil. [The integration of the Emergency Care Units (UPA) with healthcare services in the city of Rio de Janeiro, Brazil]. *Interface*. 2016; 20(59): 879–92. [in Portuguese]. DOI: <https://doi.org/10.1590/1807-57622015.0519>
15. **O'Dwyer, G, Konder, MT, Reciputti, LP, Macedo, C and Lopes, MGM.** O processo de implantação do Serviço de Atendimento Móvel de Urgência no Brasil: Estratégias de ação e dimensões estruturais. [Implementation of the Mobile Emergency Medical Service in Brazil: Action strategies and structural dimension]. *Cadernos Saude Publica*, 2017; 33(7): 1–14. [in Portuguese]. DOI: <https://doi.org/10.1590/0102-311x00043716>
16. **Viana, ALD, Bousquat, A, Pereira, APCdeM, Uchimura, LYT, de Albuquerque, MV, Mota, PHdosS, S, Demarzo, MMP and Ferreira, MP.** Tipologia das regiões de saúde: Condicionantes estruturais para a regionalização no Brasil. [Typology of health regions: Structural determinants for regionalization in Brazil]. *Saude Sociedade*, 2015; 24(2): 413–422. [in Portuguese]. DOI: <https://doi.org/10.1590/S0104-12902015000200002>
17. **Região e Redes: o caminho da universalização do SUS.** Banco de indicadores – metadados 2015 [Region and Networks: The way to SUS universalization. Data – 2015]. [webpage on the internet]. [cited 2017 may 31]. Available from: <http://www.resbr.net.br/indicadores/view/output.php>.
18. **Foley, G and Timonen, V.** Using Grounded Theory Method to Capture and Analyze Health Care Experiences. *Health Services Research*, 2015 Aug; 50(4): 1195–210. DOI: <https://doi.org/10.1111/1475-6773.12275>
19. **Chapman, AL, Hadfield, M and Chapman, CJ.** Qualitative research in healthcare: An introduction to grounded theory using thematic analysis. *Journal of the Royal College of Physicians of Edinburgh*, 2015; 45(3): 201–5. DOI: <https://doi.org/10.4997/JRCPE.2015.305>
20. **Corbin, J and Strauss, A.** Grounded Theory Research: Procedures, Canons and Evaluative Criteria. *Zeitschrift fur Sociol [Qualitative Sociology]*, 1990; 19(6): 418–27.

21. Strauss, A and Corbin, J. Basics of Qualitative Research: Grounded Theory procedures and techniques. London: SAGE; 1990. DOI: <https://doi.org/10.4212/cjhp.v68i3.1456>
22. Sutton, J and Austin, Z. Qualitative Research: Data Collection, Analysis, and Management. *Can J Hosp Pharm*, 2015; 68(3): 226–31. DOI: <https://doi.org/10.4212/cjhp.v68i3.1456>
23. Bousquat, A, Giovanella, L, Campos, SEM, de Almeida, PF, Martins, CL, Mota, PHdosS, de Mendonça, MHM and Medina, MG. Atenção primária à saúde e coordenação do cuidado nas regiões de saúde: Perspectiva de gestores e usuários. [Primary health care and coordination of care in the health regions: Perspective of managers and users]. *Ciencia Saude Coletiva*, 2017; 22(4): 1169–82. [in Portuguese]. DOI: <https://doi.org/10.1590/1413-81232017224.28632016>
24. Coelho, VSP. Contratação de serviços e regionalização. [Contracting of services and regionalization]. Novos Caminhos, N.13, 2017. Pesquisa “Política, Planejamento e Gestão das Regiões e Redes de Atenção à Saúde no Brasil” [cited 2017 2 Jun. 2017]. Available from: <http://www.resbr.net.br/wp-content/uploads/2017/02/Novos-Caminhos-13.pdf> [In Portuguese].
25. Christenson, J. A network to improve emergency patient care by facilitating practitioners to effectively support practitioners. *Healthcare Management Forum*, 2014; 27(3): 132–5. DOI: <https://doi.org/10.1016/j.hcmf.2014.05.004>
26. de Almeida, PF, Gervás, J, Freire, J-M and Giovanella, L. Estratégias de integração entre atenção primária à saúde e atenção especializada: Paralelos entre Brasil e Espanha. [Integration strategies between primary health care and specialized care: Parallel between Brazil and Spain]. *Saude Debate*, 2013; 37(98): 400–15. [in Portuguese]. DOI: <https://doi.org/10.1590/S0103-11042013000300004>
27. Topp, SM, Abimbola, S, Joshi, R and Negin, J. How to assess and prepare health systems in low- and middle-income countries for integration of services—a systematic review. *Health Policy Planning*, 2017; 298–312. DOI: <https://doi.org/10.1093/heapol/czx169>
28. Harrop, N. Links between systems in Accident & Emergency and primary care. *Journal Inform Primary Care*, 2005; 13: 223–6. DOI: <https://doi.org/10.14236/jhi.v13i3.600>
29. Carrier, E, Elsayy, T and Holzwart, RA. Coordination Between Emergency and Primary Care Physicians. *The National Institute for Health Care Reform (NIHCR)*. Research Brief n. 3, 2011.
30. Patel, VL and Kushniruk, AW. Interface Design for Health Care Environments: The Role of Cognitive Science. *Proceedings AMIA Symposium*, 1998; 29–37.
31. Asante, A, Price, J, Hayen, A, Jan, S and Wiseman, V. Equity in Health care financing in low-and middle-income countries: A systematic review of evidence from studies using benefit and financing incidence analyses. *PLoS One*, 2016; 11(4): 1–20. DOI: <https://doi.org/10.1371/journal.pone.0152866>
32. Kruk, ME, Porignon, D, Rockers, PC and Van Lerberghe, W. The contribution of primary care to health and health systems in low- and middle-income countries: A critical review of major primary care initiatives. *Social Science & Medicine*, 2010; 70: 904–911. DOI: <https://doi.org/10.1016/j.socscimed.2009.11.025>
33. Ianni, AMZ, Monteiro, PHN, Alves, OSF, Moraes, MdeLSe and Barboza, R. Metrópole e região: Dilemas da pactuação da saúde. O caso da Região Metropolitana da Baixada Santista, São Paulo, Brasil. [Metropolitan and regional health planning: Dilemmas of the Pact for Health in the Baixada Santista Metropolitan Area, São Paulo State, Brazil]. *Cadernos Saude Publica*, 2012; 28(5): 925–34. [in Portuguese]. DOI: <https://doi.org/10.1590/S0102-311X2012000500011>
34. de Almeida, PF, Santos, AMdos, Santos, VdaP and Silveira Filho, RM. Integração assistencial em região de saúde: Paradoxo entre necessidades regionais e interesses locais. [Health care integration: A paradox between regional needs and local interests]. *Saude e Sociedade*, 2016; 25(2): 320–35. [in Portuguese]. DOI: <https://doi.org/10.1590/S0104-12902016153295>
35. Santos, AMdos and Giovanella, L. Governança regional: Estratégias e disputas para gestão em saúde. [Regional governance: Strategies and disputes in health region management]. *Revista Saude Publica*, 2014; 48(4): 622–31. [in Portuguese]. DOI: <https://doi.org/10.1590/S0034-8910.2014048005045>
36. Giovanella, L and de Almeida, PF. Atenção primária integral e sistemas segmentados de saúde na América do Sul. [Primary integral care and segmented health systems in South America]. *Cadernos Saude Publica*, 2017; 33(Sup 2): e00118816. [in Portuguese]. DOI: <https://doi.org/10.1590/0102-311x00118816>
37. Vargas, I, Mogollon-Perez, AS, Unger, J-P, Da-Silva, MRF, De Paepe, P and Vazquez, M-L. Regional-based Integrated Healthcare Network policy in Brazil: From formulation to practice. *Health Policy Planning*, 2015; 30(6): 705–17. DOI: <https://doi.org/10.1093/heapol/czu048>
38. Brown, AD, Pisters, WTP and Naylor, D. Regionalization Does Not Equal Integration. *Healthcare Papers*, 2016; 16(1): 4–6. DOI: <https://doi.org/10.12927/hcpap.2016.24765>
39. Viana, ALD, Ferreira, MP, Cutrim, MAB, et al. Política de regionalização do SUS em debate: Avanços e impasses da implementação das regiões e redes no Brasil. [Regionalization policy of the SUS under debate: Advances and impasses of the implementation of the regions and networks in Brazil]. *Novos Caminhos*, n.15. 2017. Pesquisa Política, Planejamento e Gestão das Regiões e Redes de Atenção à Saúde no Brasil. [cited 2017 Jun 20]. Available from: <http://www.regiaoeredes.com.br> [in Portuguese].

**How to cite this article:** Uchimura, LYT, da Silva, ATC and Viana, ALd. Integration between Primary Health Care and Emergency Services in Brazil: Barriers and Facilitators. *International Journal of Integrated Care*, 2018; 18(4): 8, 1–10. DOI: <https://doi.org/10.5334/ijic.4066>


**Submitted:** 08 March 2018

**Accepted:** 24 October 2018

**Published:** 15 November 2018

**Copyright:** © 2018 The Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC-BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See <http://creativecommons.org/licenses/by/4.0/>.

 *International Journal of Integrated Care* is a peer-reviewed open access journal published by Ubiquity Press.

OPEN ACCESS 

### 5.3 Article 3 - Managers and clinicians: perceptions of the impact of regionalization in two regions in Canada

This research article highlights the following objectives of this thesis: (1) to understand the different realities of the universal health systems of Brazil and Canada; (2) to verify the process of regionalization and the establishment of Health Care Networks in Brazil and in the international context. This article introduces the results of the case study in Ontario, Canada. The actors interviewed agreed on propositions that view regional structures in Ontario as contributing significantly to improving the health system performance. This research article was accepted and will be originally published in the Healthcare Management Forum. It can be accessed by green open access. As it is not open access, this article is not available in this thesis, only through the website of the published journal.

For citation: Uchimura LYT, Viana ALd'Á, Marchildon GP. Managers and clinicians: perceptions of the impact of regionalization in two regions in Canada. Healthcare Management Forum. In preparation.

Submitted on October 15, 2018

Accepted on November 17, 2018

Published on May 2019

Green Open Access





Liza Uchimura &lt;lytuchimura@gmail.com&gt;

---

**Healthcare Management Forum - Decision on Manuscript ID HMF-18-0074.R1**

1 mensagem

---

**Healthcare Management Forum** <onbehalfof@manuscriptcentral.com>

17 de novembro de 2018 16:38

Responder a: editor@sympatico.ca

Para: lytuchimura@gmail.com

17-Nov-2018

Dear authors,

It is a pleasure to accept your manuscript entitled "Managers and clinicians: perceptions of the impact of regionalization in two regions in Canada." in its current form for publication in the May 2019 edition of Healthcare Management Forum.

Thank you for your fine contribution. On behalf of the Editors of Healthcare Management Forum, we look forward to your continued contributions to the Journal.

Sincerely,  
Managing Editor, Healthcare Management Forum

#### 5.4 Article 4 - Primary and Emergency Care: Assessing integration in two health care regions in Canada

This article directly addresses these objectives of the thesis: (1) to compare the primary health care and the emergency care network of the Regional Health Department-V of the State of São Paulo and the Mississauga and Central Toronto regions, in the Province of Ontario, Canada; (2) to analyze the policy, structure and organization aspects of the integration of primary health care with emergency care. This is a qualitative study with 23 managers and clinicians from primary health and emergency care in two regions of Ontario, Canada. The thematic analysis based on grounded theory presents the main obstacles for integration of primary health and emergency care in policy, structure and organization aspects. This research article will be submitted to important scientific journal.

For citation: Uchimura LYT, Viana ALd'Á, Marchildon GP. Primary and Emergency Care: Assessing integration in two health care regions in Canada. In preparation.



**Title - Primary and Emergency Care: Assessing integration in two health care regions in Canada**

Liza Yurie Teruya Uchimura, Department of Preventive Medicine, Faculty of Medicine, University of Sao Paulo, Brazil

Ana Luiza d'Ávila Viana, Department of Preventive Medicine, Faculty of Medicine, University of Sao Paulo, Brazil

Gregory P. Marchildon, Institute of Health Policy, Management and Evaluation, University of Toronto, Canada

**Abstract**

**Background.** Around the world, reforms in health system integration are increasingly fostering collaboration for better health care and evidence-informed decision-making. Despite recognition, the gaps in evidence in this field of research and practice in Canada remain poorly characterized. The research purpose is to identify the aspects that interfere in the appropriate integration of the primary health and emergency care in two local health integration networks of Ontario, Canada. **Methods.** This is a qualitative study with 23 managers and clinicians from primary health and emergency care in two regions of Ontario, Canada. The thematic analysis based on grounded theory represents the following aspects in health system: policy, structure and organization. **Results.** According to the interviewees, the main obstacles for integration of primary health and emergency care were: policy: (1) withdrawal of the primary care physicians from the hospital setting; (2) different primary health care models; structure: (3) neither a flow of information nor the ability to follow up the health care; (4) lack of a collaborative model that would harmonize and integrate the goals for the entire health system; organizational: (5) the culture of a population accustomed to seeking care in walk-in clinics. **Implications.** Our findings have implications for health management and planning in systems with universal health coverage with suggestions for interventions that address the aforementioned issues.

**Key-words:** Health Services; Systems Integration; Primary Health Care; Emergency Care

## Introduction

Around the world, reforms in health system integration are increasingly fostering collaboration for better health care and evidence-informed decision-making. Integrated health systems have been promoted to improve access, quality and continuity of services in a more efficient way [1,2,3]. Other studies showed the integrated care avoid medical errors, omission of needed services, unnecessary repetition of tests, unnecessary referrals and delays in diagnosis [3]. The conceptual model of integrated care plays complementary roles around the three levels: macro level (system integration); meso level (professional and organization integration) and micro level (clinical integration) [2,4]. A common framework between organizations and actors and mechanisms to finance, inform and management strategies to aggregate the greatest overall value into the system are the responsibility, respectively, of the normative level and functional level, which ensure connectivity between all levels of integrated care [4,5,6].

Many integrated care initiatives have been rolled out, in a wide range of settings and contexts. The Innovative Care for Chronic Conditions Model from World Health Organization (WHO) have been included the social determinants of health and have been focused on the system coordinated by interventions that are not limited only to clinical practice but also to health promotion, prevention, screening, rehabilitation and palliative care [7,8]. Patient-centred medical home has been developed and promoted in the United States of America as a model for transforming the organization and delivery of primary care with all types of care have been worked together [7]. A successful Canadian model is the PRISMA that have been integrated multiple services, even from different providers, to people with moderate-to-severe health situation, preserving the functional autonomy of these patients [9,10].

Studies was shown that more integrated health systems have greater potential to provide care coordination and better hospital efficiencies [11]. However, the growing demand for emergency department, most of them were solving issues in primary health care,

was a trend in many countries [12]. The delivery of integrated care requires greater attention to the common good and the needs of communities and patients.

Canada does not have an integrated health system [13,14], so each Canadian province looks for ways to implement integration. In addition, with the regional health authorities, the Canadian provinces have improved the problems related to the coordination of care between organizations and providers [14,15]. In 1997 the Government of Ontario began developing a comprehensive strategy and series of initiatives to address the integrated and coordinated care [15]. One of the first initiatives was rationalizing the hospital system through units and/or organizations that are at the same stage in the process of delivering services and recommending major reinvestment in community settings [13].

The field of integrated care is thus weak in terms of implementation science [16] that enables research findings and evidence to be used to support health care policy and practice [17]. One reason for this is that the objectives of integrated care and the barriers are not well defined in the health systems. Integrated care can take place at various health system levels and settings within the health sector, between primary health care and emergency departments or as integration of health and social sectors. The aim of this study is to identify the aspects that interfere in the appropriate integration of the primary health and emergency care in two local health integration networks of Ontario, Canada.

## **Methods**

This study employs a qualitative design, based on grounded theory, with 23 health leaders and health providers working in two regions in Ontario, Canada – the Mississauga Halton Local Health Integration Network (LHIN) and the Toronto Central LHIN.

Health leaders and health providers were key informants from primary health and emergency care. The health leaders and health providers interviewed were: coordinators

and family doctors from different models of primary health care services; directors and physicians of emergency departments; regional health advisors from primary health care services, including emergency departments and a regional health advisor from chief executive; and a ministry of health representative.

The semi-structured interview guide was developed, based on the research questions regarding the integration of primary health and emergency care in their policy, structural and organizational aspects. The interview guide was revised after feedback from other researchers. The policy aspect seeks to identify the areas of action, negotiation and conflict in the region, main-actors, the processes and decision flows and the conduct of the policy and the functions exercised by each institution in health decisions in the region. Structure translates flows of information, technological incorporation and human resources. The organizational aspect, in turn, presents the criteria of provision for the planning, management, regulation and access of the population to health services. The semi-structured interviews were conducted in January and February of 2017.

All 23 transcribed interviews were coded and categorised. Transcribed interviews were first read in their entirety to obtain a sense of whole. Coding and categorisation of content was discussed by the analyst and two researchers to provide validation of the process and findings. For database processing and analysis, Atlas-ti software version 8.0 was used.

The thematic analysis followed the principles of grounded theory, with learning driven by the data and not by a pre-existing theoretical vision [18,19]. Grounded theory provides an analysis that simultaneously generates theory, this being one of the characteristics that makes it attractive to researchers in healthcare [20]. The methodological choice is justified by our pre-existing knowledge of the problem prior to data collection, and the analysis was conducted simultaneously in all stages, from data collection through to saturation.

All interviewees were presented with a consent form with a description of the objectives of the research and requesting their authorization for the interview to be audio recorded.

The research project was submitted to the Ethics Committee of the Faculty of Medicine of the University of São Paulo, Brazil, the home university of the first author. This study was financed in part by the Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq).

## Results

Integrating primary health care with emergency care improves access to health care for patients and reduces visits to emergency services. Our results indicate the main obstacles for integration of primary health with emergency care were: policy aspect: (1) withdrawal of the primary care physicians from the hospital setting; (2) different primary health care models; structure aspect: (3) neither a flow of information nor the ability to follow up the health care; (4) lack of a collaborative model that would harmonize and integrate the goals for the entire health system; organizational aspect: (5) the culture of a population accustomed to seeking care in walk-in clinics.

Most interviewees agreed that care was automatically fragmented when primary care doctors don't work in the hospital. Moving to a system design that better enables family doctors to re-establish a relationship with the hospital will be an important way of making integration a success. They confirmed that primary care models made it economically punitive for family doctors to continue to see patients in the hospital. One of the interviewees, from small town in Ontario, described the importance of having the family doctors also in the hospital environment:

*“Our family doctors have a very close relationship with our local hospital. And so, a lot of our doctors in the family health team also provide service...they work in the emergency room in the hospital. So, we’ve always had a really good relationship with the hospital. And because of that we have really good 7-day follow-up numbers and readmission numbers just because we have that close relationship.”*

It can be a problem to integrate primary care across different models. Our respondents identified a specific Mississauga Halton LHIN problem in which only 10% of the

population had access to primary care in terms of a family health team, the rest are all solo practitioners. On the other hand, the primary care advisors believed that the capitation system had led to much more efficient use of primary care resources. Different models of primary care also allow different levels of access to patient information: members of the family health team had greater privileges than those who charged fees for their services. Therefore, they believed that the family health team was in a better position to promote greater coordination and integration with the emergency care:

*“...if you’re part of a family health team, I think it’s easier because you have the resources and the ability to do that, and it’s encouraged that you do that. But if you’re a fee-for-service doctor, it’s a lot to maintain these privileges. So, a lot of them have given them up or don’t even bother getting them in the first place. So, there’s a huge disconnect between acute or emergency medicine and primary care. And there’s no real channels...to disseminate information. They can’t get lab reports, they can’t get things directly. A lot of these fee for service doctors, unless they have privileges, have to wait for a paper...someone to send a paper fax. It’s really antiquated.”*

The interviewees could identify no main institution responsible for the integration of primary health and emergency care, but they pointed to several institutions that share this role, including the Ontario College, The College of Physicians and Surgeons, Association of Family Health Teams of Ontario, Health Quality Ontario and LHINs. According to the perception of managers and clinicians, the institution responsible for organizing and decision-making primary care was the Ontario Ministry of Health and Long-Term Care while for emergency care the responsibility was between LHINs and hospitals. The main conflict cited by the interviewees as an obstacle to integration was a direct result of higher level policies between hospitals and family doctors:

*“...so many of the policies that are in place don’t enable that integration and actually may harm it in terms of funding and in terms of regulations and that sort of thing. That it creates friction between hospitals and family doctors. They’re not paid out of the*

*same bucket. The family physicians are not accountable to the LHIN. So, there are real policy failures at the top level that cause issues at the meso level”*

In addition, respondents reported neither a flow of information nor the ability to monitor health care. Interviewees agreed that the same electronic medical record among family doctors' offices, hospitals and home care services would be useful in integrating and coordinating the health system and patient care. The communication of patient care among primary health and emergency care was not standardized. It is up to the health professional to make this communication through telephone calls or patient reports by fax or email. There were no regular meetings where professionals from primary health and emergency care can talk about observations or patients. There was no established flow or process for someone directing somebody to go from primary care into an emergency department:

*“...it’s not a standardized process that says, okay, so I’m going to send someone to emergency, these are the things that I’m going to send them with, this would be the process. It’s just that they show up and go through triage...”*

For managers and clinicians there was an obstacle to understanding a collaborative model that would harmonize goals for the entire health system. Family doctors believed the system to be primitive in terms of capacity to relate the population’s health needs with the services offered. There was a lack of oversight and planning that would match the health system's human resources to the population's health needs.

The Ontario Renal Network, End-of-Life Care Network, Cancer Care and other networks supported standards of care, helped to provide a best practice standard of care and helped drive policy in targeted areas. The networks work collaboratively with the LHINs to guide the health service providers and there was a perception that was a way of association the providers come together. Although, those networks didn’t reach out into primary care typically, they were oriented to specialty care and hospital-based care, so they were limited in their capacity to effect the system:

*“The networks are mostly disease focused, mostly around populations that have highly specialized care. And that is the antithesis of primary care. Primary care is really around all patients, population-based, and it’s not dealing with... It deals with patients generally that are not of high specialty needs areas, so they not integrated primary care and emergency”*

The fact that the emergency department is the means to access aspects of primary care needs leads to the culture of a population accustomed to seeking primary care in walk-in clinics. For managers and clinicians, the rapid consultations available at walk-in clinics was an obstacle to the provision of effective integrated care. For one emergency care advisor, the essence of comprehensive care is that primary care practitioners ought to be able to respond to the common health problems of the populations they serve in order to avoid the overload of the emergency departments and walk-in clinics.

## **Discussion**

The results of this study suggest that the policy, structure and organizational aspects in the health system interfere with the integration of primary health and emergency care in two regions of Ontario. The withdrawal of family doctors from the hospital environment and the different models of primary health care, as well as the lack of information flow and the ability to follow health care along with the custom of the population to solve their problems in walk-in clinics are determinant obstacles to non-integration.

The absence of family doctors in hospitals can be interpreted as the fragmentation of patient care. Thus, despite our findings, together with the scientific literature, support the hypothesis that in the health system there is a need for a health professional, not necessarily a family doctor, responsible for the integration between primary health and emergency care. Furthermore, the lack of an institution responsible for such integration intensifies the fragmentation of care with models of care based on specific-diseases (e.g. Cancer Care Network). Data from other countries [21] showed that practices with a non-specific multimorbidity focus put more emphasis on patient involvement and an inter-organizational collaboration.



Regarding the policy framework, the provincial government and LHINs must have one policy in place to do this integration. And many of the policies [15, 22, 23] which were in force do not allow this integration and can harm the relationship between hospitals and doctors in terms of funding and regulations. Even with improvements in primary care identified by other studies [24, 25, 26] in terms of expanding access beyond normal working hours, electronic medical records, scope of primary care providers, provision of targeted services and more integrated and interprofessional primary health care, the present investigation differed in identified the non-evolution of primary care in connecting with other levels of the health system and the networks. To our knowledge, during the period under study, about three-quarters of primary care doctors in Canada use electronic medical records [27], however the connectivity to other information technology systems is still poor [27, 28].

We corroborate the findings that family doctors of different payment models in primary care do not perform different care with their patients [26, 29]. Of all the models, our study reinforced that the family health team has shown itself attractive to many doctors in Ontario [30]. This primary care model has been described as "the flagship initiative of the provincial government in the renewal of primary care" largely due the requirement to involve other professions such as besides doctors and nurses as social workers, psychologists, nutritionists and pharmacists [31]. Despite improvements in access to primary care services, provincial managers were in difficult relation with family doctors and had to freeze payments because of high costs from reforms and the family health team model [26].

Regarding the care model, the results showed the need for a collaborative model to monitor health care, which would harmonize and integrate the goals for the entire health system. To our knowledge, during the period under study, the "Integration Planning Program" was launched, coordinated by Toronto Central LHIN, with a schedule for full implementation by 2020 [32]. As the main goals of this program are to establish formal partnerships between different providers, improve the articulation of different providers based on specific care conditions, integrate programs and services to improve access and health care and build shared capacity to support the efficient and effective delivery

of care [32]. In this way, our study corroborated the analysis made by the policy-makers of the program that presents goals mainly at the macro level or system integration following the Rainbow Model of Integrated Care [2,4].

It is acknowledged that integrated care requires interprofessional collaboration and interorganizational integration, cooperation and/or collaboration [33,34]. As shown in the results difficulties of inteorganisational integration in multiple services. Mechanisms for organizing health care networks should strike a balance between government, market-based consideration and civil society following ethical issues of integration and collaboration [33]. We corroborated the previous results in strengthening the services in health care networks, following the definition of networks of groups of three or more legally autonomous organizations that work together to achieve not only their own goals but also a collective goal to a defined population [35, 36].

Health care networks initiatives have received support from international organisations for enhancing the use of services [36, 37]. The implementation of integration strategies was recommended through the process of health care networks happens primarily with focus on health professionals [3, 38]. Studies point out that these networks can help not only in integration but also in the clinical coordination carried out by primary care with secondary care [3, 39, 40].

## **Conclusions**

Our findings have implications for health management and planning in systems with universal health coverage with suggestions for interventions that address the aforementioned issues. The major challenge of current health systems is to implement actions that include primary care in integrating with other services considering the complexities of different providers and patients. Our study fills an important gap in the knowledge base identifying policy, structure and organizational aspects of the integrated care between primary health and emergency care in two health regions. Following the conceptual model of integrated care (Valentijn et al. 2013, 2015), the policy aspects are located in the macro level, the structural ones in the meso level and the organizational ones in the micro level.

This study provides qualitative support for the relationship between managers and clinicians-perceived about integration. Any weakness in the findings mentioned above may be due to the limited number of practices we could include, which resulted in a lack of knowledge to examine the relationship of patient perceptions of integrated care between primary health and emergency care.

More work is needed to develop research methodologies that take into account the various integration processes from primary care and emergency services from patients, providers, managers and policy perspective in the same way. In the future, replication studies on integrated care between primary health and emergency care should be conducted including patient experience. Finally, further studies are required to compare our results, which are based on perceptions from managers and clinicians, with other information sources, other provinces of Canada and other countries with universal health coverage.

## References

1. Armitage GD, Suter E, Oelke ND, Adair CE. Health systems integration: state of the evidence. *International Journal of Integrated Care* 2009 Jun 17;9.
2. Valentijn PP, Schepman SM, Opheij W, Bruijnzeels MA. Understanding integrated care: a comprehensive conceptual framework based on the integrative functions of primary care. *International Journal of Integrated Care* 2013 Mar 22; 13.
3. Vázquez ML, Vargas I, Unger JP, De Paepe P, Mogollón-Pérez AS, Samico I, et al. Evaluating the effectiveness of care integration strategies in different healthcare systems in Latin America: The EQUITY-LA II quasi-experimental study protocol. *BMJ Open*. 2015;5(7). DOI:10.1136/bmjopen-2014-007037
4. Valentijn PP, Boesveld IC, Van der Klauw DM, Ruwaard D, Struijs JN, Molema JJW, et al. Towards a taxonomy for integrated care: a mixed-methods study. *Int J Integr Care*. 2015;15(1):1–18.
5. Shortell SM, Gillies RR, Anderson DA. The new world of managed care: creating organized delivery systems. *Health Affairs* 1994;13(5):46–64.
6. Veil A, Hébert R. Measuring the integration of services between stakeholders in the continuum of services for the elderly in three territories. In: Hébert R, Tourigny A, Raiche M, editors. *PRISMA Volume II, Integration of services for disabled people: research leading to action*. Québec: Edisem; 2008. pp. 71–108.

7. World Health Organisation (WHO). Integrated care models: an overview. *Heal Serv Deliv Program*. 2016;42.
8. Barr VJ, Robinson S, Marin-Link B, Underhill L, Dotts A, Ravensdale D, et al. The expanded Chronic Care Model: an integration of concepts and strategies from population health promotion and the Chronic Care Model. *Hosp Q*. 2003;7(1):73–82.
9. Ham C, Glasby J, Parker H, Smith J. Altogether now? Policy options for integrating care. *Health Services Management Centre*. 2008.
10. Hébert R, Raïche M, Dubois M-F, Gueye NR, Dubuc N, Tousignant M, et al. Impact of PRISMA, a coordination-type integrated service delivery system for frail older people in Quebec (Canada): A quasi-experimental study. *J Gerontol B Psychol Sci Soc Sci*. 2010 Jan;65B(1):107–18.
11. Wan TTH et al. Integration mechanisms and hospital efficiency in integrated health care delivery systems. *Journal of Medical Systems*, 2002; 26: 127-143.
12. Schull MJ, Vermeulen M, Guttman A, Stukel T. Better performance on length-of-stay benchmarks associated with reduced risk following emergency department discharge: an observational cohort study. *Canadian Journal of Emergency Medicine*. 2015; 17(3):253-262.
13. Leatt, P., G. Pink and M. Guerriere. Towards a Canadian Model of Integrated Healthcare. 2000. *Healthcare Papers* 1(2): 13–35.
14. Protti D. Integrated Care, Information Management and Information Technology in Canada: Have We Made Any Progress in the Past 12 Years? *Healthcare Quarterly* 2013. 16(1): 54-59.
15. Government of Ontario. Patients First: A Proposal to Strengthen Patient-Centred Health Care in Ontario. Toronto: Government of Ontario; December 17, 2015.
16. Goodwin N. How do you build programmes of integrated care? The need to broaden our conceptual and empirical understanding. *Int J Integr Care* 2013; 13(1): 1-2.
17. Kuo T, Gase LN, Inkelas M, Gunzenhauser JD, Anaya H, Darwish F. Dissemination, Implementation, and Improvement Science Research in Population Health: Opportunities for Public Health and CTSA's. *Clin Transl Sci*. 2015;8(6):807–13.
18. Strauss A, Corbin J. *Basics of Qualitative Research: Grounded Theory procedures and techniques*. London. SAGE, 1990.
19. Sutton J, Austin Z. *Qualitative Research: Data Collection, Analysis, and Management*. *Can J Hosp Pharm*. 2015;68(3):226–31.
20. Chapman AL, Hadfield M, Chapman CJ. Qualitative research in healthcare: An introduction to grounded theory using thematic analysis. *J R Coll Physicians Edinb*. 2015;45(3):201–5.

21. Fryer AK, Friedberg MW, Thompson RW, Singer SJ. Patient Perceptions of Integrated Care and Their Relationship to Utilization of Emergency, Inpatient and Outpatient Services. *Healthcare*. 2017;5(4):183–93.
22. Government of Ontario. Long-Term Care Act, Bill 173. Ministry of Health and Long-Term Care (MoHLTC), 1994.
23. Government of Ontario. Ontario's Local Health Integration Networks (LHINs). An Act to provide for the integration of the local system for the delivery of health services. Ministry of Health and Long-Term Care (MoHLTC), 2006.
24. Hutchison B, Glazier R. Ontario's primary care reforms have transformed the local care landscape: but a plan is needed for ongoing improvement. *Health Affairs* 2013;32(4):695–703.
25. Sweetman A, Buckley G. Ontario's experiment with primary care reform. Calgary: University of Calgary, The School of Public Policy Research Papers; 2014.
26. Marchildon GP, Hutchison B. Primary care in Ontario, Canada: New proposals after 15 years of reform. *Health Policy (New York)*. 2016;120(7):732–8.
27. Martin D. Better now: six big ideas to improve health care for all Canadians. Penguin Random House Canada Limited, 2017.
28. Peckham A, Ho J, Marchildon G. Policy Innovations in Primary Care across Canada. A Rapid Review Prepared for the Canadian Foundation for Healthcare Improvement. Rapid Review I. North American Observatory on Health Systems and Policies. March 2018.
29. Rudoler D, Laporte A, Barnsley J, Glazier RH, Deber RB. Paying for primary care: A cross-sectional analysis of cost and morbidity distributions across primary care payment models in Ontario Canada. *Soc Sci Med*. 2015; 124:18–28.
30. Moat KA, Lavis JN, Hutchison B. Learning from promising primary care practice models for the USA: a Canadian case study. Hamilton, ON: McMaster Health Forum, Centre for Training and Research Support Centre; 2014.
31. Hutchison B, Levesque J-F, Strumpf E, Coyle N. Primary health care in Canada: systems in motion. *The Milbank Quarterly* 2011;89(2): 256–88.
32. Toronto Central LHIN. Implementing the Integration Planning Program. Implementation Plan for the Integration Review Project: "Advancing the Integration Conversation". October, 2016, p. 39.
33. Raus K, Mortier E, Eeckloo K. Organizing Health Care Networks: Balancing Markets, Government and Civil Society. *International Journal of Integrated Care*, 2018; 18(3): 6, 1–7. DOI: <https://doi.org/10.5334/ijic.3960>
34. Karam, M, Brault, I, Van Durme, T and Macq, J. Comparing interprofessional and interorganizational collaboration in healthcare: A systematic review of the qualitative

research. *International Journal of Nursing Studies*, 2018; 79: 70–83. DOI: <https://doi.org/10.1016/j.ijnurstu.2017.11.002>

35. Provan, KG and Kenis, P. Modes of Network Governance: Structure, Management, and Effectiveness. *Journal of Public Administration Research and Theory Advance*, 2008; 18(2): 229–52. DOI: <https://doi.org/10.1093/jopart/mum015>

36. World Health Organization. Integration of health care delivery. Geneva: WHO 1996; Report No.: 861. Series: WHO Technical Report Series.

37. Mendes EV. [Health Care Networks]. Brasília DF: Organização Pan-Americana de Saúde (OPAS), Conselho Nacional de Secretarios de Saúde. 2011.

38. Gardner K, Yen L, Banfield M, et al. From coordinated care trials to medicare locals: what difference does changing the policy driver from efficiency to quality make for coordinating care? *Int J Qual Health Care* 2013; 25:50–7.

39. Vargas, I., Mogollon-Perez, A.S., De Paepe, P., da Silva, M.R., Unger, J.P., Vazquez, M.L. Do existing mechanisms contribute to improvements in care coordination across levels of care in health services networks? Opinions of the health personnel in Colombia and Brazil. *BMC Health Serv. Res.* 15, 213, 2015.

40. Giovanella, L., de Almeida, P.F., Romero, R.V., Oliveira, S., Silva, H.T. Overview of primary health care in south America: conceptions, components and challenges. *Saúde Debate*, 2015; 39: 301e322.

---

## CRITICAL ANALYSIS

---

## 6 CRITICAL ANALYSIS

The present thesis identifies important points to be considered. Most of the studies that analyze the interfaces between the different levels of health care are aimed at integration and evaluation in the health system. The vertical integration between primary health care and emergency services remains a major challenge in which regionalization policy could help to organize the health system (Viana et al. 2018).

The first article identified that the regionalization process had more contributions in the organizational aspect of the health system based on health regions. The mechanisms for referral and counter-referral, clinical guidelines and forwarding patient information were considered integration and coordination mechanisms of health care networks in North-Barretos and South-Barretos. However, deficient epidemiological indicators and lower production were found to be barriers to better planning and monitoring of the health needs, even when regionalization had rendered a better understanding of those health needs.

In this study, structural aspects such as a low installed capacity available for health services in the health care network were identified. Investments have increased in the health care network over recent years, during the period when the interviews were conducted. The leadership of the Regional Structure was represented by the State, an essential element for accomplishing regionalization by acting as a mediator in the process.

Considering the contributions made by the regionalization process in the same health regions, the second article identified differences and similarities between primary health care and the emergency care network. The main differences between these two health system levels were: ill-defined interfaces, institution responsible for organization, space for decisions, conflicts for decision-making and planning. Despite these barriers, facilitators for integration were also identified: presence of the Regional Interagency Committee, adequate funding and professional training.



In terms of better understanding the influence of the regionalization process and the functions and roles of the health care network in two Brazilian regions, the use of a mixed method design presented more appropriate correlation and comparison of these important results (articles 1 and 2) (Pluye et al. 2018). This strategy helped in the process to recognize the similarities and differences in the interfaces between primary health care and the emergency care network (article 2).

Considering specific objectives established for this research, articles 1 and 2 contribute to diagnosing the current state of health care networks in Brazil. One of the central points presented is the role of primary care with its essential attributes (first contact service, longitudinality, comprehensiveness and coordination) (Starfield 2004). In article 1 the attributes of comprehensiveness and coordination were evidenced, while article 2 demonstrates the attribute of first contact service and coordination. Therefore, the articles analyzed how the care model adopted in the studied regions is contributing to the health system.

The articles of this research are in agreement with the results found at a national level, comparing the results of cycles 1 and 2 from the National Program for Improving Access and Quality of Basic Care (PMAQ-AB) in Brazil, in which coordination was the attribute that presented the worst result in relation to the other essential attributes (Lima et al. 2018). The weakness of the essential attributes indicated the ineffectiveness of primary care interventions.

Many factors can contribute to this situation. Vanelli et al. (2018) suggest that compliance to clinical guidelines has not received adequate attention in the implementation of health care networks (Vanelli et al. 2018). On the other hand, 43% of primary care physicians fail to follow clinical guidelines and/or use referral criteria to refer patients with chronic kidney disease to the secondary care level (Paula et al. 2016).

Despite advances in improving access to primary care services, there are still challenges for ensuring the better use of essential attributes: lack of articulation in integrated networks, excess of service demands and lack of capacity building (Lima et al. 2018). Lima et al. (2018) propose improvements in the organization of services, such

as active patient search, fixation of the family health strategy professionals and the deprecation of work relationships for longitudinal effectiveness.

Isolated municipal management of primary care services, identified in our study and at a national level (Lima et al., 2018), reflects the difficulty of achieving integration with other levels of the health system. Despite improvements, such as electronic medical records and regulatory structures, the integration of primary care specifically with emergency services requires an institution responsible for articulating management between the two spheres. In the health regions of this research, the regionalization policy, unfortunately, contributed little to the integration of primary care with the emergency care network.

Subsequent articles present results from Canada's study with semi-structured interviews with managers and clinicians. Article 3 demonstrates the perceptions of managers and clinicians regarding the approach adopted in Ontario, where regionalization has made a significant contribution to improving the performance of the health system in two important regions. Our informants reported that the LHINs had reduced fragmentation and duplication, and increased partnerships in the regional health system.

Articles 1 and 3, in a similar way to the Bergenvin et al. (2016) study, confirmed greater ownership of the health needs of the population with health care networks. The authors mention that regionalization has improved the population's health by expanding the intersectoral approaches that facilitate dialog among political representatives (Bergenvin et al. 2016). As showed in this study, these analyses, in the health regions in Brazil and Canada, identified an important contribution made by regionalization to integrate the health system, as well as to improve the definition of the flow of patients and the regulation of the health services.

Unfortunately, this research drawing on data from Brazil and Canada identified that regionalization did not demonstrate results in primary care. According to the Canadian studies, the greatest challenge for regionalization in that country lies in regionalizing primary care (MacLeod 2015; Marchildon 2015; Bergenvin et al. 2016). Primary care doctors retained their status as independent practitioners paid mainly on a

fee-for-service basis through contracts negotiated by medical associations and provincial governments (Marchildon 2016). Consequently, regional structures are unable to manage primary health care (Marchildon and Hutchison 2016).

Managers and clinicians agreed that there is tension between regional health decision-making and the independence and power of hospitals in Ontario. On the other hand, in the Brazilian regions of the study, conflicts are identified mainly between the cities from these regions (especially between the hub-city and other cities). The identified conflicts showed the main institutions and the form of organization of each health system.

Finally, article 4 addresses the major challenge of current health systems in the Canadian regions to implement actions that include primary care in integrating with other services considering the complexities of different providers and patients. The withdrawal of family doctors from the hospital environment and the different models of primary health care, as well as the lack of information flow and the ability to follow health care as well as the custom of the population solving their problems in walk-in clinics are determinant obstacles to non-integration.

The present investigation identified the non-evolution of primary care in connecting with other levels of the health system and networks. Even though almost all the primary care doctors use electronic medical records there is no connectivity to other information technology systems. This demonstrates the need for effective communication between information systems beyond just using electronic medical records. The research participants, as well as the data from Brazil (article 2), highlighted the electronic medical record as a positive mechanism in relation to integration and continuity of care. On the other hand, lack of or incomplete registration is frequent and recognized as a major difficulty, linked to resistance on the part of the professional who fail to adequately complete the records (Ros et al. 2018).

In article 3 the attributes of comprehensiveness and coordination were evidenced, whereas article 4 demonstrates the attributes of first contact service and comprehensiveness. As shown in another study (Damji et al. 2018), this research found comprehensive generalist care to be provided by family physicians and interprofessional

primary care teams. Despite this, our results reinforce that the needs of the population are being attended to by primary care in Ontario regions.

Unlike in the Brazilian data (articles 1 and 2), which show the coordination attribute as having the worst result in relation to other essential attributes, the Canadian data (articles 3 and 4) show that comprehensiveness is an attribute that is still being developed. This finding reinforces the idea that the main problem in the regions of Canada is that the health system is not able to respond efficiently in a timely manner and with integrated care (Damji et al. 2018).

This research identified facilitators and barriers that interfere in the establishment of the primary care and emergency care network interfaces in distinct socio-spatial realities in Brazil (article 2) and Canada (article 4) (Figure 7).

Figure 7. Facilitators and barriers to integration between primary health care and emergency care network in Brazil and Canada.

Aspects	Brazil		Canada	
	Facilitators	Barriers	Facilitators	Barriers
<b>Policy</b>	Regional Interagency Committee	Lack of integration between municipal health department and regional health department in order to comprehensive care	Family health teams	Withdrawal of the primary care physicians from the hospital setting and different primary health care models
<b>Structure</b>	Sufficient funding	Distinct criteria for planning mechanisms	Electronic medical records	Neither a flow of information nor the ability to follow up the health care and lack of a collaborative model that would harmonize and integrate the goals for the entire health system
<b>Organization</b>	Professional training (Pio XII Foundation)	Ineffective interfaces: there is no integration between services	Longitudinality attribute prioritized in the Canadian health system	The culture of a population accustomed to seeking care in walk-in clinics

Source: Prepared by the author.

Comparisons between both sets of results have been carried out for other characteristics. Based on the Rainbow Model of Integrated Care, service integration can be achieved at macro level, in the system dimension (system integration); meso level, institutional dimension (organizational integration); meso level, professional dimension (professional integration) and micro level, service dimension (clinical integration) (Valentijn et al. 2015). Considering questions regarding the influence of different aspects in the conceptual model of integrated care, the policy aspects are at the macro level, the structural ones at the meso level and the organizational ones at the micro level. Following the central idea of a proposed typology of health care networks (Perri et al. 2006), the results distinguished the organizational logic of the Brazilian and Canadian health systems. The Brazilian regions are systematized in an individualist typology (poorly regulated and poorly integrated) and Ontario regions in isolated typology (highly regulated and poorly integrated).

There is no ideal model of integration between primary care and other levels of care, above all, with emergency services. However, this research identified possible factors that could enhance integrated care. One potential model that would contribute to the successful implementation of integrated care is based on the following categories: (1) enabling factors – (i) evaluation methods; (ii) common values; (iii) clinical leadership and; (iv) information technology infrastructure; (2) barriers to be overcome – (i) funding realignment; (ii) leadership coalition; (iii) identification of target population and (iv) involvement of primary, community and social care; (3) core factors – (i) adequate financing; (ii) changing clinical cultures; (iii) supportive regulation; (iv) flexible administrative regulation (Maruthappu et al. 2015).

There is widespread recognition of the challenges in developing and implementing evidence-based evaluation of an integrated health system. This research recognized the “research-knowledge-practice” gaps in integrated care are discontinuities in different health system organizations. Even when the evidence and actors are well established, changes in practice can be challenging to implement. The main results presented can serve as a road map for reforms and improvements to integration at different levels of care in the health system.

---

## CONCLUSIONS

---

## 7 CONCLUSIONS

The aim of this thesis was to identify the aspects that interfere in the establishment of interfaces between primary health care and the emergency care network in distinct socio-spatial realities (regions) and distinct health care systems. The study drew on a combination of case studies and methodologic research design. The results allowed for a better understanding of the dynamics and arrangements of the health care networks at both levels of care in the two countries. Likewise, it ascertained how the health care networks are organized and identified the health policies that are implemented for each region.

The set of research articles presented in this thesis reported important implications, both to a theoretical and practical extent. In terms of theory, the results evidenced how the regionalization process contributed to different health systems with universal health coverage. In terms of practical implementation, the identification of barriers and facilitators by diverse actors in both health systems would enable the organization of actions to improve integration between primary care and emergency services.

These findings, together with the scientific literature, support the hypothesis that weaknesses and deficiencies exist in health policies and health planning. The failure to integrate primary care with emergency services in the regions studied exposed similar points of difficulty in achieving interorganizational integration of multiple services. The implementation of integration strategies was recommended through the process of health care networks focused on the health professionals and clinical coordination.

A further conclusion addressing how the integration of primary health care and the emergency care network is approached, identified the conditions that favor or hinder regionalization and the opportunities for integration between primary care and emergency care in the macro-dimensions of the health system, that is, in the policy, structure and organization. By working with these three dimensions, it is possible to identify whether the goals for the regional institutional capacity in universal health have

been achieved. In the policy dimension, the question of regional planning was developed with the identification of its important actors and decision-making spaces and responsible institutions. In the structural dimension, the study was able to highlight the main barriers for access to health, whether geographic, financial or technological. The importance of the organizational dimension of the health system was characterized by the appropriation of the population's health needs, primary care coordinating (or not) the health care networks and the relationship between the regions and the networks.

By improving understanding of regionalization, this thesis highlights the importance of studies to analyze and execute health planning within the health regions. In the case studies of this thesis, analysis at a regional level reinforced the importance of optimizing (human, structural and financial) resources for better access and health care provision to the population. The networks proved to represent a new logic of health service management and organization and facilitators of integration from a territorial point of view. A health system which is organized in such a way so as to make it sufficient in the health region, besides being more cost effective, also seeks better integration and timely access for patients.

Interviews with managers and clinicians, in both the Brazilian and Canadian regions, have demonstrated the views and opinions of these actors from management to health service protocols. Thus, it was possible to identify the involvement (or non-involvement) of these actors in the constant changes of the health system and in the regionalization process. The benefits of regionalization have been questioned in some regions and countries, and despite the doubts, this health policy presents a positive balance in the case studies of this thesis, albeit with issues remaining to be better resolved (e.g. primary health care). In view of this, it is the responsibility of subsequent studies to measure these impacts and scale them up to other health regions.

These results contribute to the literature by contextualizing Brazil and Canada in a comparison of health system organizations focused on regional structures. Both Brazil and the province of Ontario, Canada, reached a major milestone in 2006, declaring to prioritize the regionalization policy in the organization of health services. For this reason, a comparison of the contributions of regionalization in these health regions was



possible with no time bias. The study demonstrated that despite the diversity between the scenarios studied, integration between primary health care and the emergency care network, foreseen in theory, has yet to be fully implemented in practice. Another similarity identified is the power of hospitals, in these cases studies, as private institutions or non-profit organizations, in the decision-making process of the regional structure and in the organization of flows for health actions and for patients in health regions. Furthermore, the hypothesis was confirmed that the physicians of the regions studied had little knowledge about the process of health regionalization.

Among the differences found, the managers of the regions of Ontario displayed a better approach to the health policy studied and better abilities in regional planning and managing of the health services. A further distinction lies in the design of the networks. In Brazil, primary care is the important component of the care network and considered the coordinator of the network. Whereas in the Ontario regions, networks were designed according to certain clinical conditions (e.g. Cancer Care Network) and often primary care has no place in the design network, which usually begins in specialized services.

Moreover, among the identified differences is the regional division according to population and health facilities in Ontario, while in Brazil the design of health regions follows a more administrative division. In Brazil, the formation of health regions was introduced by the federal entity, the designs of the regions are the responsibility of the states, while the municipalities are the responsibility of municipal governments. In Canada, the regional design is the responsibility of the provinces, even when they divide cities into different local health integration networks.

It should also be highlighted that communication between different health providers and managers is more effective in the Canadian health regions, from clinical care to planning with indicators of social determinants. This is due to the use of electronic medical records and their activity reports which optimize communication issues.

More work is needed to develop research methodologies that take into account the various integration processes of primary care and emergency services, equally from

the perspective of patients, providers, managers and policy. Future replication studies on integrated care should include patient experience.

The primary focus here has been on the main theme of the thesis rather than on a comparative analysis of the Brazilian and Canadian health systems, which should be addressed in other studies. An interesting route for future research would be to compare and conduct different analyses of the Brazilian and Canadian health systems. Despite these limitations, to our knowledge, few studies have addressed the strengths and weaknesses of each of these health systems.

As a final message, this research will enable an understanding of the obstacles to be overcome to reduce inequalities in the universalization of health care in Brazil and Ontario, Canada. The work undertaken through this thesis benefits at least five groups of people: (1) those who evaluate the contributions of the regionalization process in the health system; (2) those who review the performance of integrated health systems; (3) those who implement reforms in primary health care; (4) those who try to reduce the demand for emergency services; and (5) those who stand to benefit from universal health coverage.

Promising results in terms of achieving more integrated health systems or between integration between primary health care and the emergency care network can be expected with the Declaration of Astana that succeed the Alma-Ata. In this sense, contributions exploring different sets of data could provide valuable insights for major situations of dilemma faced by health systems.

---

## REFERENCES

---

## 8 REFERENCES

- Almeida PF De, Oliveira SC De. Integração de rede e coordenação do cuidado : o caso do sistema de saúde do Chile Network integration and care coordination : the case of Chile ' s health system. *Cienc e Saude Coletiva*. 2018;23(7):2213–28.
- Almeida PF de, Santos AM dos. Primary Health Care: Care coordinator in regionalized networks? *Rev Saude Publica*. 2016;50:1–13.
- Armitage GD, Suter E, Oelke ND, Adair CE. Health systems integration: state of the evidence. *Int J Integr Care*. 2009;9(2):1–11.
- Atun R, De Andrade LOM, Almeida G, Cotlear D, Dmytraczenko T, Frenz P, et al. Health-system reform and universal health coverage in Latin America. *Lancet*. 2015;385(9974):1230–47.
- Atun R, De Jongh T, Secci F, Ohiri K, Adeyi O. Integration of targeted health interventions into health systems: A conceptual framework for analysis. *Health Policy Plan*. 2010;25(2):104–11.
- Báscolo E, Houghton N, Riego ADR. Lógicas de transformación de los sistemas de salud en América Latina y resultados en acceso y cobertura de salud. *Rev Panam Salud Pública*. 2018;42(e126):1–9.
- Bautista MAC, Nurjono M, Lim YW, Dessers E, Vrijhoef HJ. Instruments Measuring Integrated Care: A Systematic Review of Measurement Properties. *Milbank Q*. 2016;94(4):862–917.
- Berg M. Measuring the value of healthcare delivery: a call to action. *BMJ Outcomes* [Internet]. 2015;(April):6–13. Available from: <http://outcomes.bmj.com/wp-content/uploads/2016/08/BMJ-Outcomes-Article-Collection.pdf>
- Bergenvin Y, Habid B, Elicksen K, Samis S, Rochon J, Adaimé C, et al. Towards the Triple Aim of Better Health , Better Care and Better Value for Canadians : transforming regions into high performing. Montréal, Québec, Canada; 2016.
- Bousquat A, Giovanella L, Campos EMS, Almeida PF de, Martins CL, Mota PH dos S, et al. Atenção primária à saúde e coordenação do cuidado nas regiões de saúde: perspectiva de gestores e usuários. *Cien Saude Colet*. 2017;22(4):1141–54.
- Carinci F, Gool KV a N, Mainz J, Veillard J, Pichora EC, Januel JM, et al. Towards actionable international comparisons of health system performance : expert revision of the OECD framework and quality indicators. *Int J Qual Health Care*.

- 2015;Advance ac(March):1–10.
- Carr BG, Addyson DK. Geographic information systems and emergency care planning. *Acad Emerg Med*. 2010;17(12):1274–8.
- Creswell JW. *Research design: qualitative, quantitative and mixed methods approaches*. 5th ed. United States of America: SAGE Publications; 2014.
- Damji AN, Martin D, Lermen Jr N, Pinto LF, Trindade TG da, Prado Jr JC. Trust as the foundation: thoughts on the Starfield principles in Canada and Brazil. *Reports of Committees*. 2018;64:811–5.
- Doney MK, Macias DJ. Regional highlights in global emergency medicine development. *Emerg Med Clin North Am*. 2005;23(1):31–44.
- Dorrance KA, Robbins DA, Kimsey L, LaRochelle JS, Durning S. Toward a National Conversation on Health: Disruptive Intervention and the Transformation from Health Care to Health. *Mil Med*. 2018;183(suppl\_3):193–7.
- Etienne CF. Promoting universal health through primary health care. *Rev Panam Salud Pública*. 2018;42(e145):1–2.
- Fausto MCR, Bousquat A, Lima JG, Giovanella L, Almeida PF de, Mendonça MHM de, et al. Evaluation of Brazilian Primary Health Care From the Perspective of the Users. *J Ambul Care Manage*. 2017;40(2):S60–70.
- Ferlie E, Dopson S, Fitzgerald L, McGivern G, Exworthy M. *Networks in Health Care: A Comparative Study of Their Management, Impact and Performance* [Internet]. NIHR-SDO programme. 2010. Available from: [http://www.netscc.ac.uk/hsdr/files/project/SDO\\_FR\\_08-1518-102\\_V01.pdf](http://www.netscc.ac.uk/hsdr/files/project/SDO_FR_08-1518-102_V01.pdf)
- Friedberg MW, Hussey PS, Schneider EC. Primary care: A critical review of the evidence on quality and costs of health care. *Health Aff*. 2010;29(5):766–72.
- Ghebreyesus TA, Fore H, Birtanov Y, Jakab Z. Primary health care for the 21st century, universal health coverage, and the Sustainable Development Goals. *Lancet*. 2018;392(10156):1371–2.
- Ghiotto MC, Rizzolo Y, Gandolfo E, Zuliani E, Mantoan D. Strengthening primary care: The Veneto Region's model of the Integrated Medical Group. *Health Policy (New York)*. 2018;122:1149–54.
- Giovanella L, Almeida PF de. Atenção primária integral e sistemas segmentados de saúde na América do Sul. *Cad Saude Publica*. 2017;33(suppl 2).

- Ham C, Glasby J, Parker H, Smith J. Altogether now? Policy options for integrating care. *Integr Vlsi J*. 2008;1–12.
- Hill PS. Primary health care and universal health coverage: competing discourses? *Lancet*. 2018;392(10156):1374–5.
- Hutchison B, Glazier R. Ontario's primary care reforms have transformed the local care landscape, but a plan is needed for ongoing improvement. *Health Aff*. 2013;32(4):695–703.
- Kellermann AL, Hsia RY, Yeh C, Morganti KG. Emergency care: Then, now, and next. *Health Aff*. 2013;32(12):2069–74.
- Keugoung B, Macq J, Buvé A, Meli J, Criel B. The interface between health systems and vertical programmes in Francophone Africa: the managers' perceptions. *Trop Med Int Heal* [Internet]. 2011;16(4):478–85. Available from: <http://doi.wiley.com/10.1111/j.1365-3156.2010.02716.x>
- Kluge H, Kelley E, Barkley S, Theodorakis PN, Yamamoto N, Tsoy A, et al. How primary health care can make universal health coverage a reality, ensure healthy lives, and promote wellbeing for all. *Lancet*. 2018;392(10156):1372–4.
- Kodner DL, Spreeuwenberg C. Integrated care: meaning, logic, applications, and implications--a discussion paper. *Int J Integr Care*. 2002;2(November):1–6.
- Leatt P, Pink GH, Guerriere M. Towards a canadian model Of integrantes healthcare. *Healthc Pap*. 2000;1(2):13–35.
- Lima JG, Giovanella L, Fausto MCR, Bousquat A, Silva EV da. Atributos essenciais da Atenção Primária à Saúde: resultados nacionais do PMAQ-AB. *Saúde em Debate*. 2018;42(spe1):52–66.
- Lopes H, Mateus C, Hernández-Quevedo C. Ten Years after the Creation of the Portuguese National Network for Long-Term Care in 2006: Achievements and Challenges. *Health Policy (New York)*. 2018;122(3):210–6.
- Lyngsø AM, Godtfredsen NS, Høst D, Frølich A. Instruments to assess integrated care: a systematic review. *Int J Integr Care*. 2014;14(25 September):1–15.
- Macinko J, Starfield B, Erinosho T. The impact of primary healthcare on population health in low- and middle-income countries. *J Ambul Care Manage*. 2009;32(2):150–71.
- MacLeod H. Local Health Integration Networks: Build on their purpose. *Healthc Manag Forum*. 2015;28(6):242–6.

- Mahajan P, Visclosky T, Bhoi S, Galwankar S, Kuppermann N, Neumar R. The importance to develop global emergency medicine research network. *Am J Emerg Med*. 2018;10–1.
- Marchildon GP. Health system review. 2013;15(1).
- Marchildon GP. The crisis of regionalization. *Healthc Manag Forum*. 2015 Nov;28(6):236–8.
- Marchildon GP. Regionalization: What have we learned? *Heal Pap*. 2016;16(1):8–14.
- Marchildon GP, Hutchison B. Primary care in Ontario, Canada: New proposals after 15 years of reform. *Health Policy*. 2016 Jul;120(7):732–8.
- Maruthappu M, Hasan A, Zeltner T. Enablers and Barriers in Implementing Integrated Care. *Heal Syst Reform*. 2015;1(4):250–6.
- Mendes EV. As redes de atenção à saúde [Internet]. 2 edição. Organização Pan-Americana da Saúde, editor. Organização Pan-Americana da Saúde. Brasília - DF; 2011. Available from: [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S1413-81232010000500005&lng=pt&nrm=iso&tlng=pt](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1413-81232010000500005&lng=pt&nrm=iso&tlng=pt)
- Navarrete MV, Lorenzo IV, Romero A, Sánchez E, Ramon I, Plaja P, et al. Adapting the COORDENA questionnaire for measuring clinical coordination across health care levels in the public health system of Catalonia ( Spain ). *Public Heal Panor*. 2018;4(4):491–735.
- O’Connell B, Kristjanson L, Orb A. Models of integrated cancer care: a critique of the literature. *Aust Health Rev*. 2000;23(1):163–78.
- O’Dwyer G, Konder MT, Machado CV, Alves CP, Alves RP. The current scenario of emergency care policies in Brazil. *BMC Health Serv Res*. 2013;13(1).
- O’Dwyer G, Konder MT, Reciputti LP, Lopes MGM, Agostinho DF, Alves GF. The process of implementation of emergency care units in Brazil. *Rev Saude Publica*. 2017;51:125.
- Obermeyer Z, Abujaber S, Makar M, Stoll S, Kayden SR, Wallis LA, et al. Emergency care in 59 low- and middle-income countries: a systematic review. *Bull World Health Organ*. 2015;93(October 2014):577–586G.
- Ouverney AM, Ribeiro JM, Moreira MR. O COAP e a Regionalização do SUS: os diversos padrões de implementação nos estados brasileiros. *Cien Saude Colet*. 2017;22(4):1193–207.

- Padilha ARS, Amaral MA, Oliveira DC, Campos GWS. Fragilidade na governança regional durante implementação da Rede de Urgência e Emergência em Região Metropolitana. *Saúde em Debate*. 2018;42(118):579–93.
- Paula EA de, Costa MB, Colugnati FAB, Bastos RMR, Vanelli CP, Leite CCA, et al. Strengths of primary healthcare regarding care provided for chronic kidney disease. *Rev Lat Am Enfermagem*. 2016;24(0).
- Perri 6, Goodwin N, Peck E, Freeman T. Networks in Health Care. In: *Managing Networks of Twenty-First Century Organisations*. 1st ed. London: Palgrave Macmillan UK; 2006. p. 229–48.
- Pluye P, Bengoechea EG, Granikov V, Kaur N, Tang DL. A World of Possibilities in Mixed Methods: Review of the Combinations of Strategies Used to Integrate Qualitative and Quantitative Phases, Results and Data. *Int J Mult Res Approaches*. 2018;10(1):41–56.
- Razzak JA, Kellermann AL. Emergency medical care in developing countries: is it worthwhile? *Bull World Health Organ*. 2002;80(11):900–5.
- Rijken M, Hujala A, van Ginneken E, Melchiorre MG, Groenewegen P, Schellevis F. Managing multimorbidity: Profiles of integrated care approaches targeting people with multiple chronic conditions in Europe. *Health Policy (New York)*. 2018;122(1):44–52.
- Rocha TAH, da Silva NC, Amaral P V., Barbosa ACQ, Rocha JVM, Alvares V, et al. Access to emergency care services: a transversal ecological study about Brazilian emergency health care network. *Public Health*. 2017a;153:9–15.
- Rocha TAH, Da Silva NC, Amaral PV, Barbosa ACQ, Rocha JVM, Alvares V, et al. Addressing geographic access barriers to emergency care services: A national ecologic study of hospitals in Brazil. *Int J Equity Health*. 2017b;16(1):1–10.
- Ros C Da, Peres AM, Bernardino E, Lowen IMV, Poli Neto P, Moura MEB. Primary Health Care: the Coordinator of the Care Integration in the Emergency and Urgency Network. *Reme Rev Min Enferm*. 2018;22:1–6.
- Santana S, Szczygiel N, Pedro HID. Integration of care systems in Portugal: anatomy of recent reforms. *Int J Integr Care*. 2014;14(July):1–10.
- Schull M, Vermeulen M, Guttman A, Stukel T. Better performance on length-of-stay benchmarks associated with reduced risk following emergency department discharge: an observational cohort study. *CJEM*. 2015;17(3):253–62.
- Smith J, Haile-Mariam T. Priorities in global emergency medicine development. *Emerg*



- Med Clin North Am. 2005;23(1):11–29.
- Soranz D, Pisco LAC. Reforma dos Cuidados Primários em Saúde na cidade de Lisboa e Rio de Janeiro: contexto, estratégias, resultados, aprendizagem, desafios. *Cien Saude Colet*. 2017;22(3):679–86.
- Starfield B. Atenção Primária: equilíbrio entre necessidades de saúde, serviços e tecnologia [Internet]. UNESCO, editor. Brasília - DF: Ministério da Saúde do Brasil; 2004. Available from: [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S0103-11042018000500052&lng=pt&tlng=pt](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0103-11042018000500052&lng=pt&tlng=pt)
- Starfield B, Shi L, Macinko J. Contribution of primary care to health systems and health. *Milbank Q*. 2005 Jan;83(3):457–502.
- Stokes J, Struckmann V, Kristensen SR, Fuchs S, van Ginneken E, Tsiachristas A, et al. Towards incentivising integration: A typology of payments for integrated care. *Health Policy (New York)*. 2018;122(9):963–9.
- Strandberg-larsen M. Measuring Integrated Care. *Danish Medical Bulletin*. 2010;1–22.
- Suter E, Oelke ND, Adair CE, Armitage GD. Ten Key Principles for Successful Health Systems Integration. *Healthc Q [Internet]*. 2009;13(Spec No):16–23. Available from: <http://www.longwoods.com/product/21092>
- Suter E, Oelke ND, Alice M, Lima S, Stiphout M, Janke R, et al. Indicators and Measurement Tools for Health Systems Integration : A Knowledge Synthesis. *Int J Integr Care*. 2017;17(6):1–17.
- The Lancet. The Astana Declaration: the future of primary health care? *Lancet*. 2018;392(10156):1369.
- Valentijn PP, Boesveld IC, Van der Klauw DM, Ruwaard D, Struijs JN, Molema JJW, et al. Towards a taxonomy for integrated care: a mixed-methods study. *Int J Integr Care*. 2015;15(1):1–18.
- Valentijn PP, Schepman SM, Opheij W, Bruijnzeels MA. Understanding integrated care: a comprehensive conceptual framework based on the integrative functions of primary care. *Int J Integr Care*. 2013;13(1).
- Vanelli CP, Costa MB, Antonio F, Colugnati B, Pinheiro HS, Paula EA De, et al. Dialogue between primary and secondary health care providers in a Brazilian hypertensive population. 2018;64(9):799–805.
- Vázquez ML, Vargas I, Garcia-Subirats I, Unger JP, De Paepe P, Mogollón-Pérez AS,

- et al. Doctors' experience of coordination across care levels and associated factors. A cross-sectional study in public healthcare networks of six Latin American countries. *Soc Sci Med*. 2017;182:10–9.
- Vázquez ML, Vargas I, Unger J-P, Mongollón A, Silva MRF da, De Paepe P. Integrated health care networks in Latin America: toward a conceptual framework for analysis. *Rev Panam Salud Publica*. 2009;26(4):36.
- Vázquez ML, Vargas I, Unger JP, De Paepe P, Mogollón-Pérez AS, Samico I, et al. Evaluating the effectiveness of care integration strategies in different healthcare systems in Latin America: The EQUITY-LA II quasi-experimental study protocol. *BMJ Open*. 2015;5(7):e007037.
- Viana AL d'Ávila, Bousquat A, Melo GA, Negri Filho A De, Medina MG. Regionalização e Redes de Saúde. *Cien Saude Colet*. 2018;23(6):1791–8.
- Wheatley B. Regionalizing Emergency Care: Workshop Summary. Washington DC: The National Academies Press; 2010.
- World Health Organisation. WHO global strategy on people-centred and integrated health services. Geneva; 2015.
- World Health Organisation. Integrated care models: an overview. *Heal Serv Deliv Program*. 2016;42.
- World Health Organization. Declaration of Astana. 2018; Available from: <https://www.who.int/docs/default-source/primary-health/declaration/gcphc-declaration.pdf>
- Yin RK. Case study research: design and methods. 5th ed. United States of America: SAGE Publications; 2014.

---

## APPENDIX

---

## APPENDIX

**APENDIX 1 - Statement of Project Approval - Ethics Committee for Research-CEP**

COMITÊ DE ÉTICA EM PESQUISA

**ANEXO D - Aprovação do CEP/FMUSP****APROVAÇÃO**

O Comitê de Ética em Pesquisa da Faculdade de Medicina da Universidade de São Paulo, em sessão de 11/05/2016, APROVOU o Protocolo de Pesquisa nº 045/16 intitulado: "ATENÇÃO PRIMÁRIA E REDE DE URGÊNCIA E EMERGÊNCIA: INTERFACES NO ÂMBITO DE REGIÕES DE SAÚDE NO BRASIL E CANADÁ" apresentado pelo Departamento de MEDICINA PREVENTIVA

Cabe ao pesquisador elaborar e apresentar ao CEPFMUSP, os relatórios parciais e final sobre a pesquisa (Resolução do Conselho Nacional de Saúde nº 466/12, inciso IX.2, letra "c").

Pesquisador (a) Responsável: Ana Luiza d'Ávila Viana

Pesquisador (a) Executante: Liza Yurie Teruya Uchimura

CEP-FMUSP, 11 de Maio de 2016.

Profa. Dra. Maria Aparecida Azevedo Koike Folgueira

Coordenador

Comitê de Ética em Pesquisa

Comitê de Ética em Pesquisa da Faculdade de

Medicina e-mail: [cep.fm@usp.br](mailto:cep.fm@usp.br)



# FACULDADE DE MEDICINA

UNIVERSIDADE DE SÃO PAULO

Departamento de Medicina Preventiva

## PARECER

**Projeto de Pesquisa:** Atenção Primária e rede de urgência e emergência em âmbito de regiões de saúde no Brasil e Canadá

**Pesquisador:** Liza Yurie Teruya Uchimura (Doutorado)

**Orientador:** Profa Dra. Ana Luiza Viana

**Curso de Pós Graduação em Medicina Preventiva FMUSP**

Trata-se de projeto voltado para a identificação de fatores que interferem na interface atenção primária e rede de urgência e emergência em distintas realidades socioculturais e sistemas de saúde. O estudo irá contrastar as realidades brasileira e canadense, contando com a co-orientação de professor da Universidade de Toronto. Usará metodologias combinadas, por abordagem qualitativa e quantitativa no exame da implementação das políticas voltadas para a regionalização e conformação de redes de atenção em saúde descentralizadas. Duas dimensões são previstas: uma em que se examina a relação entre formuladores de políticas centralizados e seu controle sobre o processo e outro em que se examina o processo da perspectiva regional, na relação região-nível central decisório. Estão previstas análises documentais, entrevistas com atores-chave e entrevistas com prestadores de serviços e representantes da sociedade. As entrevistas procederão a um questionário de três macrodimensões: política, estrutura e organização. A proposta metodológica está de acordo com os objetivos do estudo e o projeto contempla também as questões éticas, satisfazendo todas as exigências. O presente projeto é parte de pesquisa maior já aprovada em parecer pelo Comitê de ética da pesquisa da FMUSP em 21/5/2015, e compatível com o cronograma proposto.

Meu parecer é de aprovação do mesmo.

São Paulo 11/02/2016

Profa. Lilia Blima Schraiber  
Depto. Medicina Preventiva

APROVADO "AD-REFERENDUM" DO CONSELHO  
DO DEPTO. DE MEDICINA PREVENTIVA-FMUSP

EM: 10/02/2016

Prof. Dr. Paulo Rossi Meneses  
Chefe do Depto. de Medicina Preventiva  
FMUSP

## APPENDIX 2 – SCRIPT OF INTERVIEW - BRAZIL

### QUESTIONÁRIO APS

APS

#### POLÍTICA

#### Espaços de Negociação, Decisão e Conflito da Atenção Primária à Saúde (APS)

P.38. Qual instituição é a principal organizadora da Atenção Primária à Saúde (APS) na região?

Ler as alternativas e marcar com X apenas uma.

- ☐ 1 Secretaria Estadual de Saúde (nível central)
- ☐ 2 Estrutura regional da Secretaria Estadual de Saúde (Diretoria regional de saúde, núcleo regional, etc.)
- ☐ 3 Secretaria Municipal de Saúde
- ☐ 4 Estabelecimento prestador de serviço de saúde. Qual? \_\_\_\_\_
- ☐ 5 Universidade. Qual? \_\_\_\_\_
- ☐ 6 Outra Instituição. Qual? \_\_\_\_\_
- ☐ 99 Não sabe

P.39. Qual a importância dos seguintes órgãos para a tomada de decisões sobre a Atenção Primária à Saúde (APS) na região?

Ler as alternativas seguida da escala de importância e marcar somente uma resposta por alternativa.

	Importância					
	Muito alta	Alta	Média	Baixa	Muito baixa	Não sabe
1 Ministério da Saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Secretaria Estadual de Saúde (nível central)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Estrutura regional da Secretaria Estadual de Saúde (Diretoria regional de saúde, núcleo regional, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Secretarias municipais de saúde de fora da região de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Secretarias municipais de saúde da região de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Ministério Público	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Órgãos do sistema judiciário (Justiça Estadual, Tribunais regionais, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**P.40. Qual a influência dos seguintes grupos/organizações nas decisões sobre a Atenção Primária à Saúde (APS) na região?**

Ler as alternativas seguida da escala de influência e marcar somente *uma resposta* por alternativa.

	Influência					
	Muito alta	Alta	Média	Baixa	Muito baixa	Não sabe
1 Estabelecimentos públicos de média e alta complexidade	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Estabelecimentos privados lucrativos contratados/conveniados ao SUS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Estabelecimentos privados não lucrativos contratados/conveniados ao SUS de média e alta complexidade	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Organizações sociais	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Fundações	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Operadoras de planos de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Indústrias relacionadas ao setor saúde (equipamentos, medicamentos)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**P.41. Qual a importância das seguintes instituições / organizações para a tomada de decisões sobre a Atenção Primária à Saúde (APS) na região?**

Ler as alternativas seguida da escala de importância e marcar somente *uma resposta* por alternativa.

	Importância					
	Muito alta	Alta	Média	Baixa	Muito baixa	Não sabe
1 Sindicatos ou associações corporativas/profissionais	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Organizações da Sociedade Civil (associações comunitárias, entidades de portadores de patologias, clubes de serviços, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Instituições acadêmicas (universidade, instituições de pesquisa)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Mídia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Empresas de consultoria	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**P.42. Qual a importância dos seguintes espaços para a tomada de decisões sobre a Atenção Primária à Saúde (APS) na região?**

Ler as alternativas seguida da escala de importância e marcar somente **uma resposta** por alternativa.

	Importância					
	Muito alta	Alta	Média	Baixa	Muito baixa	Não sabe
1 Conselho de secretários municipais de saúde (COSEMS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Comissão Intergestores Tripartite (CIT)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Comissão Intergestores Bipartite (CIB)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Comissão Intergestores Regional (CIR)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Conselhos de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Consórcio intermunicipal de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Assembleia legislativa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Câmaras de vereadores	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**P.43. Na região, os conflitos na tomada de decisões sobre a Atenção Primária à Saúde (APS) envolvem:**

Ler as alternativas e marcar a resposta com um **X** no campo correspondente: **Sim**, **Não** ou **Não Sabe**.

	Sim	Não	Não sabe
1 Municípios da região	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Municípios da região e outros municípios	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Municípios da região e instância regional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Municípios da região e Governo Estadual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Municípios da região e Governo Federal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Governo Estadual e Governo Federal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Gestor público e prestador privado lucrativo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Gestor público e prestador privado filantrópico	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 Gestor público e plano de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 Gestor público e profissionais de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 Médicos especialistas e outros profissionais	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 Profissionais do Mais Médicos e outros profissionais	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



## ESTRUTURA

### Capacidade Instalada

#### E.08. Na região, com que frequência a equipe de Atenção Primária à Saúde (APS):

Ler as alternativas seguida da escala de frequência e marcar somente uma resposta por alternativa.

	Sempre	Quase sempre	Às vezes	Raramente	Nunca	Não sabe
1 Oferece ações de atividade física de rotina na Unidade Básica de Saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Realiza coleta para exame citopatológico	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Solicita mamografia para rastreamento de câncer de mama em mulheres de 50 a 69 anos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Realiza consultas de pré-natal das gestantes de sua área de abrangência	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Disponibilidade de Recursos Humanos

#### E.18. Na região, existe processo de formação continuada dos profissionais da Atenção Primária à Saúde (APS) das seguintes categorias:

Ler as alternativas e marcar a resposta com um X no campo correspondente: Sim, Não ou Não Sabe.

	Sim	Não	Não sabe
1 Médicos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Enfermeiros	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Dentistas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Outros profissionais de nível superior	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Profissionais de nível médio	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

#### E.19. Na região, a Atenção Primária à Saúde (APS) conta com recursos humanos suficientes nas seguintes categorias profissionais:

Ler as alternativas e marcar a resposta com um X no campo correspondente: Sim, Não ou Não Sabe.

	Sim	Não	Não sabe
1 Médicos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Enfermeiros	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Dentistas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Outros profissionais de nível superior	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Profissionais de nível médio	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**E.20. Na região, qual o número médio de pessoas sob a responsabilidade de uma Equipe de Saúde da Família (EqSF)?**

*Ler as alternativas e marcar com X apenas uma.*

- ☐ 1 Até 1.000 pessoas
- ☐ 2 De 1.001 a 2.000 pessoas
- ☐ 3 De 2.001 a 3.000 pessoas
- ☐ 4 De 3.001 a 4.500 pessoas
- ☐ 5 Mais de 4.500 pessoas
- ☐ 99 Não sabe

**E.21. Na região, qual o número médio de pessoas sob a responsabilidade de uma Unidade Básica de Saúde (UBS) tradicional?**

*Ler as alternativas e marcar com X apenas uma.*

- ☐ 1 Até 5.000 pessoas
- ☐ 2 De 5.001 a 10.000 pessoas
- ☐ 3 De 10.001 a 20.000 pessoas
- ☐ 4 Mais de 20.000 pessoas
- ☐ 99 Não sabe

**E.22. Critérios de risco e vulnerabilidade foram considerados na definição do número de pessoas sob a responsabilidade das unidades de Atenção Primária à Saúde (APS) na região?**

*Para a resposta Sim, perguntar quais foram os critérios.*

- ☐ 1 Sim → Especifique os critérios considerados:  
\_\_\_\_\_  
\_\_\_\_\_
- ☐ 2 Não
- ☐ 99 Não sabe

**E.23. Há grupos populacionais sem cobertura de Atenção Primária à Saúde (APS) em áreas geográficas da região?**

*Para a resposta Sim, perguntar quais são os grupos populacionais, a proporção da população sem cobertura e as áreas geográficas.*

- ☐ 1 Sim → Quais são os grupos populacionais?  
\_\_\_\_\_  
\_\_\_\_\_
- Proporção da população sem cobertura:   %
- Quais áreas?  
\_\_\_\_\_  
\_\_\_\_\_
- ☐ 2 Não
- ☐ 99 Não sabe

## Contratação de Recursos Humanos

### E.29. Na região, a Atenção Primária à Saúde (APS) conta com:

Ler as alternativas e marcar a resposta com um X no campo correspondente: Sim, Não ou Não Sabe.

	Sim	Não	Não sabe
1 Serviços próprios com funcionários públicos estatutários	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Serviços próprios com profissionais contratados pela CLT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Serviços contratualizados por OSS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Serviços privados contratados	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### E.30. Na região, as consultas médicas especializadas para Atenção Primária à Saúde (APS) são realizadas por:

Ler as alternativas e marcar a resposta com um X no campo correspondente: Sim, Não ou Não Sabe.

	Sim	Não	Não sabe
1 Serviços próprios com funcionários públicos estatutários	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Serviços próprios com profissionais contratados pela CLT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Serviços contratualizados por OSS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Serviços privados contratados	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### E.31. Na região, os exames de diagnóstico por imagem para a Atenção Primária à Saúde (APS) são realizados por:

Ler as alternativas e marcar a resposta com um X no campo correspondente: Sim, Não ou Não Sabe.

	Sim	Não	Não sabe
1 Serviços próprios com funcionários públicos estatutários	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Serviços próprios com profissionais contratados pela CLT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Serviços contratualizados por OSS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Serviços privados contratados	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### E.32. Na região, os exames complementares bioquímicos para a Atenção Primária à Saúde (APS) são realizados por:

Ler as alternativas e marcar a resposta com um X no campo correspondente: Sim, Não ou Não Sabe.

	Sim	Não	Não sabe
1 Serviços próprios com funcionários públicos estatutários	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Serviços próprios com profissionais contratados pela CLT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Serviços contratualizados por OSS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Serviços privados contratados	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Recursos Financeiros

E.38. Qual é a participação relativa das esferas federal, estadual e municipal no custeio da Atenção Primária à Saúde (APS) na região?

Ler as alternativas seguida da escala de participação e marcar somente **uma resposta** por alternativa.

	Participação relativa					
	Muito alta	Alta	Média	Baixa	Muito baixa	Não sabe
1 Federal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Estadual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Municipal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

E.39. Nos últimos três anos, o investimento para a Atenção Primária à Saúde (APS) na região:

Ler as alternativas e marcar com **X** apenas **uma**.

- ☐ 1 Aumentou  
☐ 2 Ficou igual  
☐ 3 Diminuiu  
☐ 99 Não sabe

### Monitoramento e Avaliação dos Serviços

E.51. Cite até três instrumentos de planejamento dos serviços de Atenção Primária à Saúde (APS) na região:

Registrar um instrumento de planejamento por linha a, b, c.

a \_\_\_\_\_  
b \_\_\_\_\_  
c \_\_\_\_\_

E.52. Na região, os serviços de Atenção Primária à Saúde (APS) são avaliados por meio de indicadores de desempenho?

Para a resposta **Sim**, perguntar quais são os indicadores utilizados na avaliação.

☐ 1 Sim → Quais são os indicadores de desempenho?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

☐ 2 Não  
☐ 99 Não sabe

**E.53. Na região, com que frequência os resultados do monitoramento e avaliação da Atenção Primária à Saúde (APS) são utilizados para melhoria dos serviços?**

*Ler as alternativas e marcar com X apenas uma. Se o entrevistado declarar que não há Monitoramento e Avaliação da APS, assinalar a alternativa 6.*

- ☐ 1 Sempre
- ☐ 2 Quase sempre
- ☐ 3 Às vezes
- ☐ 4 Raramente
- ☐ 5 Nunca
- ☐ 6 Não há monitoramento e avaliação da APS na região
- ☐ 99 Não sabe

**E.54. Quem participa do processo de monitoramento e avaliação dos serviços de Atenção Primária à Saúde (APS) na região?**

*Ler as alternativas e marcar a resposta com um X no campo correspondente: Sim, Não ou Não sabe. Se o entrevistado declarar que não há monitoramento e avaliação dos serviços de APS, marcar Sim na última alternativa e deixar as demais em branco.*

	Sim	Não	Não sabe
1 Gestor estadual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Coordenador da Comissão Intergestores Regional (CIR)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Gestor municipal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Coordenador da APS Estadual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Coordenador da APS Regional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Coordenador da APS Municipal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Coordenador da regulação Estadual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Coordenador da regulação Regional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 Coordenador da regulação Municipal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 Conselho Estadual de Saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 Conselho Municipal de Saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 Não há monitoramento e avaliação da APS na região	<input type="checkbox"/>		

**E.71. Na região, com que frequência as seguintes unidades de saúde são utilizadas para a realização de consultas em serviços de reabilitação para usuários do SUS?**

*Ler as alternativas seguida da escala de frequência e marcar somente uma resposta por alternativa.*

	Sempre	Quase sempre	Às vezes	Raramente	Nunca	Não sabe
1 Unidades públicas em municípios da região de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Unidades privadas em municípios da região de saúde (conveniadas e/ou contratadas pelo SUS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Unidades públicas ou privadas fora da região de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**E.72. Na região, com que frequência as consultas em serviços de reabilitação para usuários do SUS são prestadas em unidades cujo acesso demora duas horas ou mais por meio de transporte público urbano/interurbano?**

*Ler as alternativas e marcar com X apenas uma.*

- ☐ 1 Sempre
- ☐ 2 Quase sempre
- ☐ 3 Às vezes
- ☐ 4 Raramente
- ☐ 5 Nunca
- ☐ 99 Não sabe

## ORGANIZAÇÃO

### Planejamento da APS

**O.05. Para o planejamento da Atenção Primária à Saúde (APS) na região, foram considerados:**

*Ler as alternativas e marcar a resposta com um X no campo correspondente: Sim, Não ou Não Sabe.*

	Sim	Não	Não sabe
1 Diagnóstico de necessidades de atenção à saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Diagnóstico regional da capacidade instalada de serviços de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Plano regional para adequação da oferta de serviços especializados e apoio diagnóstico e terapêutico	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Plano regional para ampliação da oferta de atenção primária	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Gestão da APS

O.16. Na região, a gestão da Atenção Primária à Saúde (APS) tem garantido:

Ler as alternativas e marcar a resposta com um X no campo correspondente: Sim, Não ou Não Sabe.

	Sim	Não	Não sabe
1 Presteza no atendimento	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Encaminhamento oportuno para demais níveis de atenção do sistema de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Resolutividade do problema de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Qualidade do atendimento	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Segurança do paciente	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

O.17. A gestão da Atenção Primária à Saúde (APS) na região tem contribuído para:

Ler as alternativas e marcar a resposta com um X no campo correspondente: Sim, Não ou Não Sabe.

	Sim	Não	Não sabe
1 Definição do fluxo assistencial	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Integração dos serviços da rede no município	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Integração dos serviços da rede na região	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Integração Sistêmica da APS

O.26. Existe integração da Atenção Primária à Saúde (APS) e a Rede de Urgência e Emergência (RUE) na região?

- ☐ 1 Sim
- ☐ 2 Não
- ☐ 99 Não sabe

O.27. Na região, existem mecanismos de contrarreferência da Rede de Urgência e Emergência (RUE) para a Atenção Primária à Saúde (APS)?

Para a resposta Sim, perguntar quais são os mecanismos de contrarreferência.

☐ 1 Sim → Quais são os mecanismos de contrarreferência?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

☐ 2 Não

☐ 99 Não sabe

- O.28. Na região, existe integração entre a Atenção Primária à Saúde (APS) e os demais serviços de saúde?

Para a resposta *Sim*, perguntar quais são os instrumentos/mecanismos utilizados.

☐ 1 Sim → Indique os instrumentos/mecanismos utilizados na integração:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

☐ 2 Não

☐ 99 Não sabe

- O.29. Quais são os mecanismos para integração assistencial e coordenação do cuidado disponíveis aos médicos da Atenção Primária à Saúde (APS) na região?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- O.31. Na região, as principais questões discutidas pela Comissão Intergestores Regional (CIR) sobre a atuação da Atenção Primária à Saúde (APS) são relativas a:

Ler as alternativas e marcar a resposta com um X no campo correspondente: *Sim*, *Não* ou *Não Sabe*.

	Sim	Não	Não sabe
1 Escopo de atuação	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Cobertura dos serviços	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Articulação com as redes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Integralidade	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Recursos humanos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Financiamento	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



**O.33. Para a coordenação de cuidados na região, com que frequência são tomadas as seguintes iniciativas:**

*Ler as alternativas seguida da escala de frequência e marcar somente uma resposta por alternativa.*

	Sempre	Quase sempre	Às vezes	Raramente	Nunca	Não sabe
1 Os médicos da Atenção Primária à Saúde (APS) acompanham seus pacientes durante a internação	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Os médicos da Atenção Primária à Saúde (APS) recebem informações escritas sobre os resultados das consultas referidas a especialistas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Os médicos da Atenção Primária à Saúde (APS) entram em contato com especialistas para trocar informações sobre os pacientes encaminhados	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Os especialistas entram em contato com profissionais da Atenção Primária à Saúde (APS) para trocar informações sobre os pacientes encaminhados	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 São organizadas atividades de educação permanente que possibilitam o encontro e contato pessoal entre profissionais da Atenção Primária à Saúde (APS) e os especialistas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**O.34. Na região, a equipe de Atenção Primária à Saúde (APS) utiliza os telessaúde para:**

*Ler as alternativas e marcar a resposta com um X no campo correspondente: Sim, Não ou Não Sabe.*

	Sim	Não	Não sabe
1 Segunda opinião formativa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Telediagnóstico	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Telediagnóstico para eletrocardiograma	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Acordo de papéis e responsabilidades dos profissionais da atenção primária e da atenção especializada	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**O.35. Na região, a prática médica generalista é valorizada por:**

*Ler as alternativas e marcar a resposta com um X no campo correspondente: Sim, Não ou Não Sabe.*

	Sim	Não	Não sabe
1 Secretaria Municipal de Saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Instâncias regionais	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Gerentes na unidade	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Médicos dos hospitais	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Médicos especialistas dos ambulatórios de especialidades	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Demais membros da equipe de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Pacientes e comunidades	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Sociedade em geral	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Acesso

- O.54. Há dificuldades para que a Unidade Básica de Saúde (UBS) / Unidade de Saúde da Família (USF) se constitua, efetivamente, como porta de entrada referencial na região?

Para a resposta **Sim**, perguntar quais são as dificuldades e os motivos destas dificuldades. Se a UBS/USF for a porta de entrada preferencial, assinalar a alternativa **3**.

☐ 1 Sim → Quais são as dificuldades?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Quais são os principais motivos destas dificuldades?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

☐ 2 Não

☐ 3 Não, porque a UBS /USF já é a porta de entrada preferencial na região.

☐ 99 Não sabe

- O.55. Na região, com que frequência a Unidade Básica de Saúde (UBS) / Unidade de Saúde da Família (USF) é:

Ler as alternativas seguida da escala de frequência e marcar somente uma resposta por alternativa.

	Sempre	Quase sempre	Às vezes	Raramente	Nunca	Não sabe
1 Porta de entrada preferencial na Rede Cegonha	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Porta de entrada preferencial na Rede de Atenção às Pessoas com Doenças Crônicas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Responsável pela coordenação do cuidado na Rede de Atenção às Pessoas com Doenças Crônicas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Q.56. Com que frequência ocorrem as seguintes situações na região:**

*Ler as alternativas seguida da escala de frequência e marcar somente uma resposta por alternativa.*

	Sempre	Quase sempre	Às vezes	Raramente	Nunca	Não sabe
1 Lista de espera com tempo inadequado à necessidade apresentada	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Tempo de espera incompatível com atendimento em urgência e emergência	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Migração de usuários para outras regiões devido à escassez de recursos ou excesso de demanda	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Barreiras de acesso aos serviços disponibilizados na região	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Vaga zero	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Insuficiência de vagas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Insuficiência de medicamentos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Insuficiência de SADT (Serviço de Apoio Diagnóstico Terapêutico)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Q.59. Na região, com que frequência são adotados os seguintes critérios de gestão da fila:**

*Ler as alternativas seguida da escala de frequência e marcar somente uma resposta por alternativa.*

	Sempre	Quase sempre	Às vezes	Raramente	Nunca	Não sabe
1 Análise de risco e vulnerabilidade no acolhimento ao usuário na Atenção Primária à Saúde (APS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Utilização de protocolos de estratificação de risco nas situações de emergência	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Programação das ações de acordo com critérios de risco	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Acompanhamento das situações de maior risco da Atenção Primária à Saúde (APS) para outros pontos de atenção	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**O.60. No que se refere às formas de agendamento, com que frequência ocorrem as seguintes situações na região:**

Ler as alternativas seguida da escala de frequência e marcar somente **uma resposta** por alternativa.

	Sempre	Quase sempre	Às vezes	Raramente	Nunca	Não sabe
1 Agendamento de <u>consultas especializadas</u> realizado na própria UBS/USF via sistema informatizado (SISREG ou outro)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Agendamento de <u>exames especializados</u> realizado na própria UBS/USF via sistema informatizado (SISREG ou outro)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Definição de cotas para realização de <u>consultas especializadas</u> por UBS/USF	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Definição de cotas para realização de <u>exames especializados</u> por UBS/USF	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**O.61. Na região, são utilizados critérios na distribuição de vagas para:**

Ler as alternativas e marcar a resposta com um **X** no campo correspondente: **Sim**, **Não** ou **Não Sabe**.

	Sim	Não	Não sabe
1 Atenção especializada entre as Unidades Básicas de Saúde (UBS)/Unidades de Saúde da Família (USF) do mesmo município	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Atenção especializada entre diferentes municípios	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Atenção hospitalar entre diferentes municípios	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**O.62. Nos serviços de Atenção Primária à Saúde (APS) na região, com que frequência ocorrem as seguintes situações:**

Ler as alternativas seguida da escala de frequência e marcar somente **uma resposta** por alternativa.

	Sempre	Quase sempre	Às vezes	Raramente	Nunca	Não sabe
1 O acesso dos usuários à atenção especializada depende de encaminhamento ou referência por profissional da Atenção Primária à Saúde (APS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Os usuários são atendidos pela atenção especializada sem encaminhamento pela Atenção Primária à Saúde (APS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q.63. Na região, qual o percurso mais comum de um paciente que é atendido na Atenção Primária à Saúde (APS) e necessita ser encaminhado para consulta especializada?

Ler as alternativas e marcar com X apenas uma.

- ☐ 1 O paciente sai da Unidade Básica de Saúde (UBS) com a consulta agendada na mesma hora
- ☐ 2 A consulta é agendada pela Unidade Básica de Saúde (UBS) e a data é posteriormente informada ao paciente
- ☐ 3 A consulta é agendada pelo próprio paciente junto à central de marcação de consultas especializadas
- ☐ 4 O paciente recebe uma ficha de encaminhamento/referência e deve dirigir-se a qualquer unidade especializada
- ☐ 5 O paciente recebe uma ficha de encaminhamento/referência sendo orientado pelo médico a procurar um determinado serviço ou profissional
- ☐ 6 Não há um percurso definido
- ☐ 99 Não sabe

Q.64. Com que frequência as unidades de Atenção Primária à Saúde (APS) conseguem agendar, em tempo oportuno, os seguintes serviços médicos para pacientes encaminhados?

Ler as alternativas seguida da escala de frequência e marcar somente uma resposta por alternativa.

	Sempre	Quase sempre	Às vezes	Raramente	Nunca	Não sabe
1 Consultas em cardiologia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Consultas em neurologia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Consultas em oftalmologia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Consultas em endocrinologia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Consultas em nefrologia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Consultas em nutrição	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Consultas em reabilitação	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Eletrocardiograma (ECG)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 Ecocardiograma	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 Exame de fundo de olho	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 Perfil lipídico	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 Mamografia para rastreamento de câncer de mama (mulheres de 50 a 69 anos)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 Colposcopia para diagnóstico de lesões precursoras de câncer de colo de útero	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Q.65. Na região, os seguintes comportamentos ou atitudes dos usuários dificultam ou impedem a obtenção/continuidade do cuidado?**

Ler as alternativas e marcar a resposta com um X no campo correspondente: **Sim, Não ou Não Sabe.**

	Sim	Não	Não sabe
1 A crença de não ter nenhum problema de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 A capacidade de reconhecer o local adequado para receber atendimento de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 A preferência por formas alternativas de cuidados (como cura religiosa ou terapias complementares) em relação àqueles oferecidos nas unidades de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 A preocupação com o que os amigos, colegas de trabalho ou profissionais de saúde possam pensar, dizer ou fazer quando souberem que o usuário procurou a unidade de saúde para receber atendimento	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Outro. Qual? _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Traçadores de Hipertensão Arterial (HAS), Diabetes Mellitus (DM), Acidente Vascular Cerebral (AVC), Tuberculose e Dengue**

**Q.66. Na região, os profissionais das unidades de Atenção Primária à Saúde (APS) encaminham usuários com pressão alta para atenção especializada quando há suspeita de Hipertensão Arterial (HAS) secundária, refratária ou risco cardiovascular elevado?**

- ☐ 1 Sim  
☐ 2 Não  
☐ 99 Não sabe

**Q.67. Nas unidades de Atenção Primária à Saúde (APS) na região, com que frequência são observadas as seguintes práticas:**

Ler as alternativas seguida da escala de frequência e marcar somente **uma resposta** por alternativa.

	Sempre	Quase sempre	Às vezes	Raramente	Nunca	Não sabe
1 As equipes de Atenção Primária à Saúde (APS) realizam registro no prontuário a cada atendimento do paciente	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 As equipes de Atenção Primária à Saúde (APS) utilizam fichas de referência para encaminhamento com preenchimento de informações clínicas necessárias	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 O médico da Atenção Primária à Saúde (APS), quando encaminha o usuário, notifica ao especialista a possível alteração na medicação	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 O médico da Atenção Primária à Saúde (APS) recebe alerta que os resultados dos exames solicitados para seus pacientes estão prontos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 O médico da Atenção Primária à Saúde (APS) recebe alerta que os resultados dos exames solicitados estão muito alterados (valores da referência)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# QUESTIONÁRIO RUE / SAMU

RUE

## POLÍTICA

### Espaços de Atuação, Negociação, Decisão e Conflitos das Redes

P.31. Qual instituição é a principal organizadora da Rede de Urgência e Emergência (RUE) na região?

Ler as alternativas e marcar com **X** apenas **uma**.

- ☐ 1 Secretaria Estadual de Saúde (nível central)
- ☐ 2 Estrutura regional da Secretaria Estadual de Saúde (Diretoria regional de saúde, núcleo regional, etc.)
- ☐ 3 Secretaria Municipal de Saúde
- ☐ 4 Estabelecimento prestador de serviço de saúde. Qual? \_\_\_\_\_
- ☐ 5 Universidade. Qual? \_\_\_\_\_
- ☐ 6 Outra Instituição. Qual? \_\_\_\_\_
- ☐ 99 Não sabe

P.32. Qual a importância dos seguintes órgãos para a tomada de decisões sobre a Rede de Urgência e Emergência (RUE) na região?

Ler as alternativas seguida da escala de importância e marcar somente **uma resposta** por alternativa.

		Importância					
		Muito alta	Alta	Média	Baixa	Muito baixa	Não sabe
1	Ministério da Saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Secretaria Estadual de Saúde (nível central)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Estrutura regional da Secretaria Estadual de Saúde (Diretoria regional de saúde, núcleo regional, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Secretarias municipais de saúde de fora da região de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Secretarias municipais de saúde da região de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Ministério Público	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Órgãos do sistema judiciário (Justiça Estadual, Tribunais regionais, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**P.33. Qual a influência dos seguintes grupos/organizações nas decisões sobre a Rede de Urgência e Emergência (RUE) na região?**

Ler as alternativas seguida da escala de influência e marcar somente **uma resposta** por alternativa.

		Influência					
		Muito alta	Alta	Média	Baixa	Muito baixa	Não sabe
1	Estabelecimentos públicos de média e alta complexidade	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Estabelecimentos privados lucrativos contratados/conveniados ao SUS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Estabelecimentos privados não lucrativos contratados / conveniados ao SUS de média e alta complexidade	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Organizações sociais	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Fundações	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Operadoras de planos de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Indústrias relacionadas ao setor saúde (equipamentos, medicamentos)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**P.34. Qual a importância das seguintes instituições/organizações para a tomada de decisões sobre a Rede de Urgência e Emergência (RUE) na região?**

Ler as alternativas seguida da escala de importância e marcar somente **uma resposta** por alternativa.

		Importância					
		Muito alta	Alta	Média	Baixa	Muito baixa	Não sabe
1	Sindicatos ou associações corporativas/profissionais	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Organizações da Sociedade Civil (associações comunitárias, entidades de portadores de patologias, clubes de serviços, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Instituições acadêmicas (universidade, instituições de pesquisa)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Mídia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Empresas de consultoria	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



**P.35. Qual a importância dos seguintes espaços para a tomada de decisões sobre a Rede de Urgência e Emergência (RUE) na região?**

Ler as alternativas seguida da escala de importância e marcar somente **uma resposta** por alternativa.

	Importância					
	Muito alta	Alta	Média	Baixa	Muito baixa	Não sabe
1 Conselho de secretários municipais de saúde (COSEMS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Comissão Intergestores Tripartite (CIT)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Comissão Intergestores Bipartite (CIB)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Comissão Intergestores Regional (CIR)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Grupo Condutor da Rede de Urgência e Emergência (ou similar)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Conselhos de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Consórcio intermunicipal de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Assembleia legislativa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 Câmaras de vereadores	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**P.36. Na região, existe Grupo Condutor (ou similar) para a Rede de Urgência e Emergência (RUE)?**

Para a resposta **Sim**, perguntar qual a composição do Grupo Condutor e as macrofunções.

☐ 1 Sim → **Qual é a composição do Grupo Condutor?**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Quais são as macrofunções do Grupo Condutor?**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

☐ 2 Não

☐ 99 Não sabe

**P.37. Na região, os conflitos na tomada de decisões da Rede de Urgência e Emergência (RUE) envolvem:**

Ler as alternativas e marcar a resposta com um **X** no campo correspondente: **Sim**, **Não** ou **Não Sabe**.

	Sim	Não	Não sabe
1 Municípios da região	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Municípios da região e outros municípios	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Municípios da região e instância regional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Municípios da região e Governo Estadual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Municípios da região e Governo Federal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Governo Estadual e Governo Federal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Gestor público e prestador privado lucrativo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Gestor público e prestador privado filantrópico	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 Gestor público e plano de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 Gestor público e profissionais de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 Médicos especialistas e outros profissionais	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**ESTRUTURA**

**Capacidade Instalada**

**E.05. Na região, a Rede de Urgência e Emergência (RUE) é suficiente em relação a:**

Ler as alternativas e marcar a resposta com um **X** no campo correspondente: **Sim**, **Não** ou **Não Sabe**.

	Sim	Não	Não sabe
1 Atenção primária	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Atenção pré-hospitalar fixa (UPA, policlínica, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Atenção pré-hospitalar móvel (SAMU, ambulância, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Rede hospitalar de referência	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Rede de reabilitação	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Serviço de Apoio Diagnóstico e Terapêutico (SADT)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Atenção domiciliar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**E.06. Na região, com que frequência a Rede de Urgência e Emergência (RUE) mobiliza os apoios necessários para:**

Ler as alternativas seguida da escala de frequência e marcar somente **uma resposta** por alternativa.

	Sempre	Quase sempre	Às vezes	Raramente	Nunca	Não sabe
1 Realização de exames (SADT)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Fornecimento de medicamentos (SAF)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Disseminação de informações sobre saúde (SIS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**E.07. A Rede de Urgência e Emergência (RUE) na região conta com:**

Ler as alternativas e marcar a resposta com um **X** no campo correspondente: **Sim**, **Não** ou **Não Sabe**.

	Sim	Não	Não sabe
1 Sistema informatizado para organização dos serviços de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Central de marcação de consultas especializadas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Central de regulação de leitos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Transporte sanitário	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Telessaúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Disponibilidade de Recursos Humanos****E.16. Na região, existe processo de formação continuada dos profissionais da Rede de Urgência e Emergência (RUE) das seguintes categorias:**

Ler as alternativas e marcar a resposta com um **X** no campo correspondente: **Sim**, **Não** ou **Não Sabe**.

	Sim	Não	Não sabe
1 Médicos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Enfermeiros	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Dentistas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Outros profissionais de nível superior	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Profissionais de nível médio	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**E.17. Na região, a Rede de Urgência e Emergência (RUE) conta com recursos humanos suficientes nas seguintes categorias profissionais:**

Ler as alternativas e marcar a resposta com um **X** no campo correspondente: **Sim**, **Não** ou **Não Sabe**.

	Sim	Não	Não sabe
1 Médicos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Enfermeiros	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Dentistas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Outros profissionais de nível superior	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Profissionais de nível médio	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Contratação de Recursos Humanos****E.26. Na região, a Rede de Urgência e Emergência (RUE) conta com:**

Ler as alternativas e marcar a resposta com um **X** no campo correspondente: **Sim**, **Não** ou **Não Sabe**.

	Sim	Não	Não sabe
1 Serviços próprios com funcionários públicos estatutários	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Serviços próprios com profissionais contratados pela CLT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Serviços contratualizados por OSS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Serviços privados contratados	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**E.27. Na Rede de Urgência e Emergência (RUE) na região, os exames de diagnóstico por imagem são realizados por:**

Ler as alternativas e marcar a resposta com um **X** no campo correspondente: **Sim**, **Não** ou **Não Sabe**.

	Sim	Não	Não sabe
1 Serviços próprios com funcionários públicos estatutários	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Serviços próprios com profissionais contratados pela CLT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Serviços contratualizados por OSS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Serviços privados contratados	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**E.28. Na Rede de Urgência e Emergência (RUE) na região, os exames complementares bioquímicos são realizados por:**

Ler as alternativas e marcar a resposta com um **X** no campo correspondente: **Sim**, **Não** ou **Não Sabe**.

	Sim	Não	Não sabe
1 Serviços próprios com funcionários públicos estatutários	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Serviços próprios com profissionais contratados pela CLT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Serviços contratualizados por OSS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Serviços privados contratados	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Recursos Financeiros

**E.36. Qual é a participação relativa das esferas federal, estadual e municipal no custeio da Rede de Urgência e Emergência (RUE) na região?**

Ler as alternativas seguida da escala de participação e marcar somente **uma resposta** por alternativa.

	Participação relativa					
	Muito alta	Alta	Média	Baixa	Muito baixa	Não sabe
1 Federal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Estadual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Municipal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**E.37. Nos últimos três anos, o investimento na Rede de Urgência e Emergência (RUE) na região:**

Ler as alternativas e marcar com **X** apenas **uma**.

- ☐ 1 Aumentou
- ☐ 2 Ficou igual
- ☐ 3 Diminuiu
- ☐ 99 Não sabe

### Contratação de Serviços

#### E.43. Qual é a principal forma de contratação dos serviços da Rede de Urgência e Emergência (RUE) na região?

Ler para cada componente as formas de contratação especificadas e marcar somente **uma** resposta que indique a forma predominante de contratação na região.

	Público (administração direta e indireta)	Público não estatal (OSS e OSCIP)	Privado Filantrópico	Privado Lucrativo	Não Sabe
1 Atenção primária	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Atenção pré-hospitalar fixa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Atenção pré-hospitalar móvel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Rede hospitalar de referência	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Rede de reabilitação	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Serviço de Apoio Diagnóstico e Terapêutico (SADT)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

#### E.44. Na região, a forma predominante de contratação de instituições públicas não estatais (OSS e OSCIP) para a Rede de Urgência e Emergência (RUE) é:

Ler as alternativas e marcar com **X** apenas **uma**. Se o entrevistado declarar que não há essa forma de contratação para a RUE, assinalar alternativa **3**.

- ☐ 1 Convênio Com quem? \_\_\_\_\_
- ☐ 2 Contratualização Com quem? \_\_\_\_\_
- ☐ 3 Não há contratação de instituições públicas não estatais para a RUE na região
- ☐ 99 Não sabe

#### E.45. Na região, a forma predominante de contratação de instituições privadas filantrópicas para a Rede de Urgência e Emergência (RUE) é:

Ler as alternativas e marcar com **X** apenas **uma**. Se o entrevistado declarar que não há essa forma de contratação para a RUE, assinalar alternativa **3**.

- ☐ 1 Convênio Com quem? \_\_\_\_\_
- ☐ 2 Contratualização Com quem? \_\_\_\_\_
- ☐ 3 Não há contratação de instituições privadas filantrópicas para a RUE na região
- ☐ 99 Não sabe

**E.46. No formato contratualização, quais são os critérios utilizados para avaliação do prestador da Rede de Urgência e Emergência (RUE) na região?**

Ler as alternativas e marcar a resposta com um **X** no campo correspondente: **Sim**, **Não** ou **Não sabe**. Se o entrevistado declarar que não há contratualização na RUE, marcar **Sim** na última alternativa e deixar as demais em branco.

	Sim	Não	Não sabe
1 Meta de produção	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Meta de qualidade	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Produtividade	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Resultados	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Outro. Qual? _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Não há contratualização na RUE na região.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Monitoramento e Avaliação dos Serviços**

**E.47. Cite até três instrumentos de planejamento da Rede de Urgência e Emergência (RUE) na região:**

Registrar um instrumento de planejamento por linha a, b, c.

a \_\_\_\_\_

b \_\_\_\_\_

c \_\_\_\_\_

**E.48. Na região, os serviços da Rede de Urgência e Emergência (RUE) são avaliados por meio de indicadores de desempenho?**

Para a resposta **Sim**, perguntar quais são os indicadores utilizados na avaliação.

☐ 1 Sim → Quais são os indicadores de desempenho?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

☐ 2 Não

☐ 99 Não sabe

**E.49. Na região, com que frequência os resultados do monitoramento e avaliação da Rede de Urgência e Emergência (RUE) são utilizados para melhoria dos serviços?**

Ler as alternativas e marcar com **X** apenas **uma**. Se o entrevistado declarar que não há Monitoramento e Avaliação da RUE, assinalar a alternativa **6**.

- ☐ 1 Sempre
- ☐ 2 Quase sempre
- ☐ 3 Às vezes
- ☐ 4 Raramente
- ☐ 5 Nunca
- ☐ 6 Não há monitoramento e avaliação da RUE na região.
- ☐ 99 Não sabe

**E.50. Quem participa do processo de monitoramento e avaliação da Rede de Urgência e Emergência (RUE) na região?**

Ler as alternativas e marcar a resposta com um **X** no campo correspondente: **Sim**, **Não** ou **Não sabe**. Se o entrevistado declarar que não há Monitoramento e Avaliação da RUE, marcar **Sim** na última alternativa e deixar as demais em branco.

	Sim	Não	Não sabe
1 Gestor estadual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Coordenador da Comissão Intergestores Regional (CIR)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Gestor municipal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Coordenador da RUE Estadual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Coordenador da RUE Regional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Coordenador da RUE Municipal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Coordenador da regulação Estadual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Coordenador da regulação Regional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 Coordenador da regulação Municipal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 Conselho Estadual de Saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 Conselho Municipal de Saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 Não há monitoramento e avaliação da RUE na região	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**ORGANIZAÇÃO**

**Planejamento da RAS, RUE, APS e VS**

**O.04. Para o planejamento da Rede de Urgência e Emergência (RUE) na região, foram considerados:**

Ler as alternativas e marcar a resposta com um **X** no campo correspondente: **Sim**, **Não** ou **Não Sabe**.

	Sim	Não	Não sabe
1 Diagnóstico de necessidades de atenção à saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Diagnóstico regional da capacidade instalada de serviços de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Plano regional para adequação da oferta de serviços especializados e apoio diagnóstico e terapêutico	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

---

**Gestão da RAS, RUE, APS e VS**


---

**O.12. Existe coordenação formal da Rede de Urgência e Emergência (RUE) na região?**

Para a resposta **Sim**, perguntar quem compõe o conselho gestor.

☐ 1 Sim

**Quem compõe o conselho gestor da RUE?**

Ler as alternativas e marcar com **X** todas com resposta afirmativa.

☐ 1 Gestor estadual

☐ 2 Gestor municipal

☐ 3 Prestador de serviços de saúde

☐ 4 Outra instância. Qual? \_\_\_\_\_

☐ 2 Não

☐ 99 Não sabe
**O.13. Na Rede de Urgência e Emergência (RUE) na região, existe definição clara das atribuições/funções dos gestores:**

Ler as alternativas e marcar a resposta com um **X** no campo correspondente: **Sim**, **Não** ou **Não Sabe**.

	Sim	Não	Não sabe
1 Federal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Estadual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Municipal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**O.14. Na região, a gestão da Rede de Urgência e Emergência (RUE) tem garantido:**

Ler as alternativas e marcar a resposta com um **X** no campo correspondente: **Sim**, **Não** ou **Não Sabe**.

	Sim	Não	Não sabe
1 Presteza no atendimento	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Encaminhamento oportuno para demais níveis de atenção do sistema de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Resolutividade do problema de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Qualidade do atendimento	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Segurança do paciente	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**O.15. A gestão da Rede de Urgência e Emergência (RUE) na região tem contribuído para:**

Ler as alternativas e marcar a resposta com um **X** no campo correspondente: **Sim**, **Não** ou **Não Sabe**.

	Sim	Não	Não sabe
1 Oferta / cobertura da atenção primária	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Definição do fluxo assistencial	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Integração dos serviços da rede no município	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Integração dos serviços da rede na região	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



### Integração Sistêmica da RAS, RUE, APS e VS

#### O.25. Na região, existe integração dos serviços da Rede de Urgência e Emergência (RUE)?

Para a resposta **Sim**, perguntar quais são os instrumentos/mecanismos utilizados.

☐ 1 Sim → Indique os instrumentos/mecanismos utilizados na integração:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

☐ 2 Não

☐ 99 Não sabe

#### O.27. Na região, existem mecanismos de contrarreferência da Rede de Urgência e Emergência (RUE) para a Atenção Primária à Saúde (APS)?

Para a resposta **Sim**, perguntar quais são os mecanismos de contrarreferência.

☐ 1 Sim → Quais são os mecanismos de contrarreferência?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

☐ 2 Não

☐ 99 Não sabe

#### O.30. Quais dos seguintes temas relacionados à conformação da Rede de Urgência e Emergência (RUE) são negociados na Comissão Intergestores Regional (CIR):

Ler as alternativas e marcar a resposta com um **X** no campo correspondente: **Sim**, **Não** ou **Não Sabe**.

	Sim	Não	Não sabe
1 Necessidades de atenção à saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Cobertura populacional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Abrangência geográfica dos prestadores de serviços de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Escopo de atuação dos estabelecimentos prestadores de serviços de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Financiamento dos componentes da RUE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Contratação e alocação de profissionais de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Logística (transporte e informações/comunicação) entre estabelecimentos assistenciais	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Regulação assistencial relacionados à RUE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 Integração da Atenção Primária à Saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 Incorporação de tecnologias em saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 Relações público-privadas na prestação de serviços de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 Relações intergovernamentais na gestão dos serviços de saúde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Regulação da RAS e da RUE

O.48. Na região, o papel da regulação na Rede de Urgência e Emergência (RUE) consiste em:

Ler as alternativas e marcar a resposta com um **X** no campo correspondente: **Sim**, **Não** ou **Não Sabe**.

	Sim	Não	Não sabe
1 Garantir acesso	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Buscar leitos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Esvaziar leitos para atender a lista de espera	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Ofertar leitos de retaguarda	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Oferecer alternativas para situações sem gravidade clínica	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Contribuir para o planejamento e organização da rede	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

O.49. Na região, a regulação da Rede de Urgência e Emergência (RUE) é operada nas esferas:

Ler as alternativas e marcar a resposta com um **X** no campo correspondente: **Sim**, **Não** ou **Não Sabe**.

	Sim	Não	Não sabe
1 Federal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Estadual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Municipal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

O.50. Existe uma central de regulação da Rede de Urgência e Emergência (RUE) na região?

Para a resposta **Sim**, perguntar qual.

☐ 1 Sim → Qual? \_\_\_\_\_

☐ 2 Não

☐ 99 Não sabe

O.51. Existem protocolos e fluxos na Rede de Urgência e Emergência (RUE) na região?

Para a resposta **Sim**, perguntar quais são os protocolos e fluxos existentes.

☐ 1 Sim → Identifique os protocolos e fluxos:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

☐ 2 Não

☐ 99 Não sabe

### APPENDIX 3 – SCRIPT OF INTERVIEW – CANADA

Research - “**Primary and Emergency Health Care: Assessing the interfaces in two health care regions of Brazil and Canada**”

Name:.....

.....

#### Script of interview

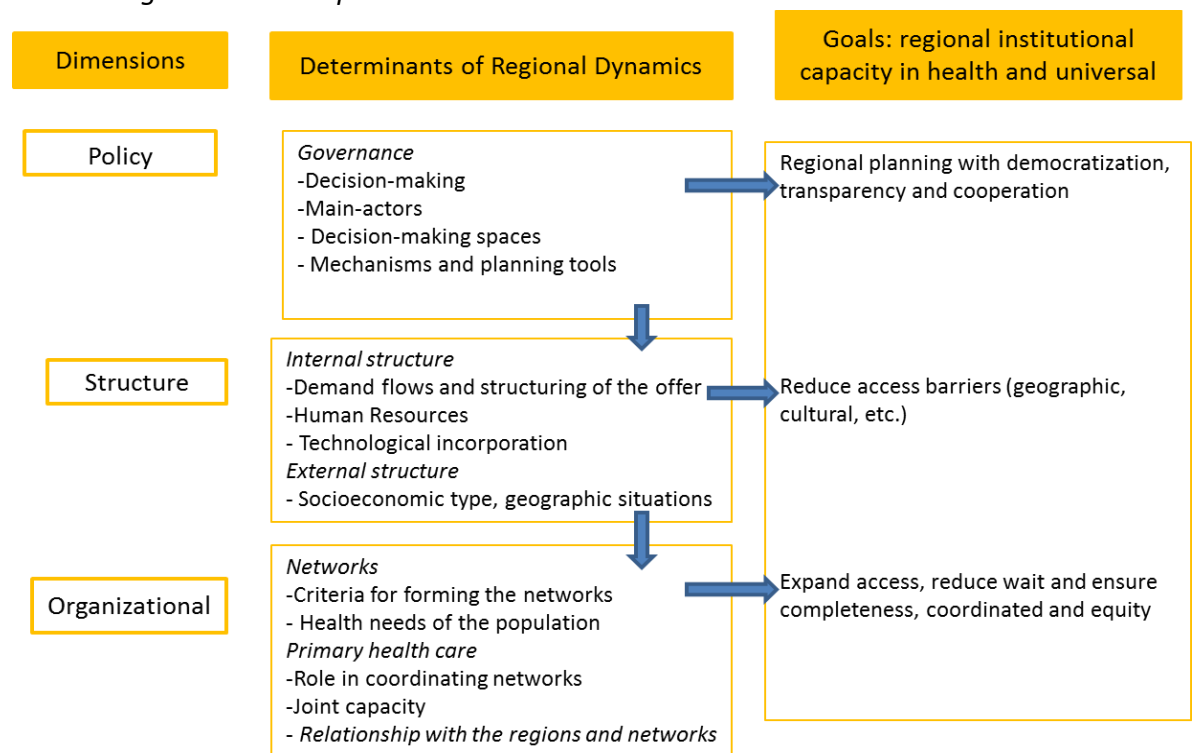
Start time: \_\_\_\_\_/End time: \_\_\_\_\_

1. What was the process of establishing the Local Health Integration Networks in Ontario? What were the most significant landmarks in the development?
2. In your view, why was Ontario the last province to create regions in Canada?
3. What are some examples of how the LHIN approach contributes to better health system performance?
4. Why do you think Ontario decided to maintain existing ownership and board structures for hospitals, unlike other provinces?
5. In your view, do you think the functions of the new three-level system: 1) local; 2) sub-LHINs/LHINs and 3) Ministry – are well defined?
6. Do you think the decision to move to new three-level system will allow Ontario to obtain “better health, better care and better value”?
7. What is the role of networks (Ontario Renal Network, End-of-Life Care Network, Emergency Care Network) in Ontario? How do they support the integration of services and assistance?
8. In your view, do these networks better facilitate patient access to health care?
9. In your experience, what are the main obstacles for integration of primary care with emergency care?
10. Some argue that the different primary care delivery models in the province (Family Health Groups, Family Health Networks, Family Health Organization, Family Health Team, etc), have not yet produced the kind of improvement in

access and quality of care that was expected. Based on your experience, do you think that these different models promote greater coordination or integration of primary care with emergency care?

11. Assuming that health services integration and coordination can be improved, can you identify the opportunities for integration and coordination between primary care and emergency care?

- *Policy aspects:*
- *Structural aspects:*
- *Organizational aspects:*



12. What role can the networks identified in Question 7 facilitate the integration and coordination of primary care and emergency care in the future?



## APPENDIX 4 – KEY INFORMANT FORM – CANADA

### KEY INFORMANT FORM

\_\_\_\_\_  
**Name:**.....

\_\_\_\_\_  
**Institution:**.....

You have been selected to participate in my research: **"Primary and Emergency Health Care: Assessing their interfaces in two health care regions of Brazil and Canada"**. This doctoral research is being done for the Department of Preventive Medicine of the Faculty of Medicine of the University of São Paulo (Brazil) in collaboration with the Institute of Health Policy, Management of Health of the University of Toronto. The purpose of this study is to identify the factor obstructions in the appropriate integration of Primary Care and Emergency Care in Ontario and in Brazil.

Your participation will consist of answering twelve questions. The responses will not be identified, nor disclosed, thus preserving confidentiality. Upon completion of the fieldwork, the aggregate results will be published, but the names of the informants and the individual information will not be disclosed. The interview will be recorded in order to facilitate better analysis.

Your participation is voluntary. You may withdraw from participation in the survey at any time.

If you have any questions please contact:

- Liza Uchimura (416) 988-4910 or email [lytuchimura@gmail.com](mailto:lytuchimura@gmail.com);
- Greg Marchildon (416) 978-2067 or email [greg.marchildon@utoronto.ca](mailto:greg.marchildon@utoronto.ca)

\_\_\_\_\_  
Name of the interviewee

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name of Researcher

\_\_\_\_\_  
Date

**APPENDIX 5 – KEY INFORMANT FORM – BRAZIL****FACULDADE DE MEDICINA DA UNIVERSIDADE DE SÃO PAULO**

---

**I -DADOS DE IDENTIFICAÇÃO DO SUJEITO DA PESQUISA OU RESPONSÁVEL  
LEGAL**

1. NOME: .....

DOCUMENTO DE IDENTIDADE Nº: ..... SEXO: M ☐ F ☐

ENDEREÇO.....Nº.....APTO: .....

BAIRRO:.....CIDADE .....

CEP:.....TELEFONE: DDD (.....) .....

---

**II -DADOS SOBRE A PESQUISA**1. TÍTULO DO PROTOCOLO **Atenção Primária e Rede de Urgência e Emergência: Interfaces no âmbito de regiões de saúde no Brasil e Canadá**2. PESQUISADOR: **Liza Yurie Teruya Uchimura**CARGO/FUNÇÃO: **Doutoranda do Departamento de Medicina Preventiva da FMUSP**UNIDADE DO HCFMUSP: **nãos e aplica**

3. AVALIAÇÃO DO RISCO DA PESQUISA:

RISCO MÍNIMO ☒ RISCO MÉDIO ☐RISCO BAIXO ☐ RISCO MAIOR ☐

4.DURAÇÃO DA PESQUISA: 16 meses

## **FACULDADE DE MEDICINA DA UNIVERSIDADE DE SÃO PAULO**

### **III - REGISTRO DAS EXPLICAÇÕES DO PESQUISADOR:**

- 1 – O objetivo deste estudo é Identificar os fatores que interferem no estabelecimento das interfaces atenção primária e a rede de urgências e emergências e em distintas realidades sócio espaciais (regiões) e em distintos sistemas de saúde.
- 2- Trata-se de identificar as condições que estejam favorecendo ou dificultando a regionalização nos estados e a conformação das redes de atenção à saúde.
- 3- O Sr/ a Sra participará da pesquisa respondendo a algumas questões que serão feitas por nossos entrevistadores.

### **IV - ESCLARECIMENTOS DADOS PELO PESQUISADOR SOBRE GARANTIAS DO SUJEITO DA PESQUISA CONSIGNANDO:**

- 1 – Garantia de acesso: em qualquer etapa do estudo, você terá acesso aos profissionais responsáveis pela pesquisa para esclarecimento de eventuais dúvidas. O principal investigador é a Liza Yurie Teruya Uchimura que pode ser encontrado no endereço Av. Dr. Arnaldo, 455 – 2º Andar Telefone(s).3061-7000 Se você tiver alguma consideração ou dúvida sobre a ética da pesquisa, entre em contato com o Comitê de Ética em Pesquisa (CEP) –Av. Dr. Arnaldo, 455 – Instituto Oscar Freire – 1º andar– tel: 3061-8004, FAX: 3061-8004– E-mail: cep.fmusp@hcnet.usp.br
- 2 – É garantida a liberdade da retirada de consentimento a qualquer momento e deixar de participar do estudo, sem qualquer prejuízo à continuidade de seu tratamento na Instituição de Saúde que você frequenta;
- 3 – Direito de confidencialidade – As informações obtidas serão analisadas em conjunto com outros pacientes, não sendo divulgado a identificação de nenhum paciente;
- 4 – Direito de ser mantido atualizado sobre os resultados parciais das pesquisas, quando em estudos abertos, ou de resultados que sejam do conhecimento dos pesquisadores;
- 5 – Despesas e compensações: não há despesas pessoais para o participante em qualquer fase do estudo, incluindo exames e consultas. Também não há compensação financeira relacionada à sua participação. Se existir qualquer despesa adicional, ela será absorvida pelo orçamento da pesquisa.

6 - Compromisso do pesquisador de utilizar os dados e o material coletado somente para esta pesquisa.

Acredito ter sido suficientemente informado a respeito das informações que li ou que foram lidas para mim, descrevendo o estudo “Atenção Primária e Rede de Urgência e

**Emergência: Interfaces no âmbito de regiões de saúde no Brasil e Canadá”**

Eu discuti com a pesquisadora Liza Yurie Teruya Uchimura sobre a minha decisão em participar nesse estudo. Ficaram claros para mim quais são os propósitos do estudo, os procedimentos a serem realizados, seus desconfortos e riscos, as garantias de confidencialidade e de esclarecimentos permanentes. Ficou claro também que minha participação é isenta de despesas. Concordo voluntariamente em participar deste estudo e poderei retirar o meu consentimento a qualquer momento, antes ou durante o mesmo, sem penalidades ou prejuízo ou perda de qualquer benefício que eu possa ter adquirido,

-----

Assinatura do paciente/representante legal Data \_\_\_\_/\_\_\_\_/\_\_\_\_

-----

Assinatura da testemunha Data \_\_\_\_/\_\_\_\_/\_\_\_\_

para casos de pacientes menores de 18 anos, analfabetos, semi-analfabetos ou portadores de deficiência auditiva ou visual.

(Somente para o responsável do projeto)

Declaro que obtive de forma apropriada e voluntária o Consentimento Livre e Esclarecido deste paciente ou representante legal para a participação neste estudo.

-----

Assinatura do responsável pelo estudo Data \_\_\_\_/\_\_\_\_/\_\_\_\_