

**27.04.07 Knowledge-intensive Technologies and Economics of Innovations**

**ITMO** *re than a*  
**UNIVERSITY**

# **ASSESSMENT OF THE PROVISION OF MEDICAL FACILITIES FOR CITIZENS**

**Student:**

**Tolmacheva Elizaveta Maksimovna, C4103**

**Supervisor:**

**Chichkova Natalia Andreevna, lecturer (qualification  
"lecturer")**

# DEFINITIONS

- **Provision**

refers to the delivery and availability of healthcare services and resources to meet the needs of the population.

- **Assessment**

involves the evaluation of an healthcare status, needs, and the effectiveness of healthcare services provided.

- **Healthcare facilities**

are locations where healthcare services and treatments are provided to individuals to promote, maintain, or restore health.

Examples of healthcare facilities:

- Hospitals
- Clinics
- Urgent care centers
- Long-term care facilities
- Rehabilitation centers



# INTRODUCTION

## OBJECT

is the provision of healthcare facilities for citizens

## TASKS

- Definition of key concepts;
- Review of regulatory framework on healthcare at the level of the Russian Federation and international experience;
- To formulate key issues based on assessment;
- Review of methods for assessing the provision of healthcare facilities;
- To propose a comprehensive method for assessing the provision of citizens with medical facilities based on an integrated approach.

## PURPOSE

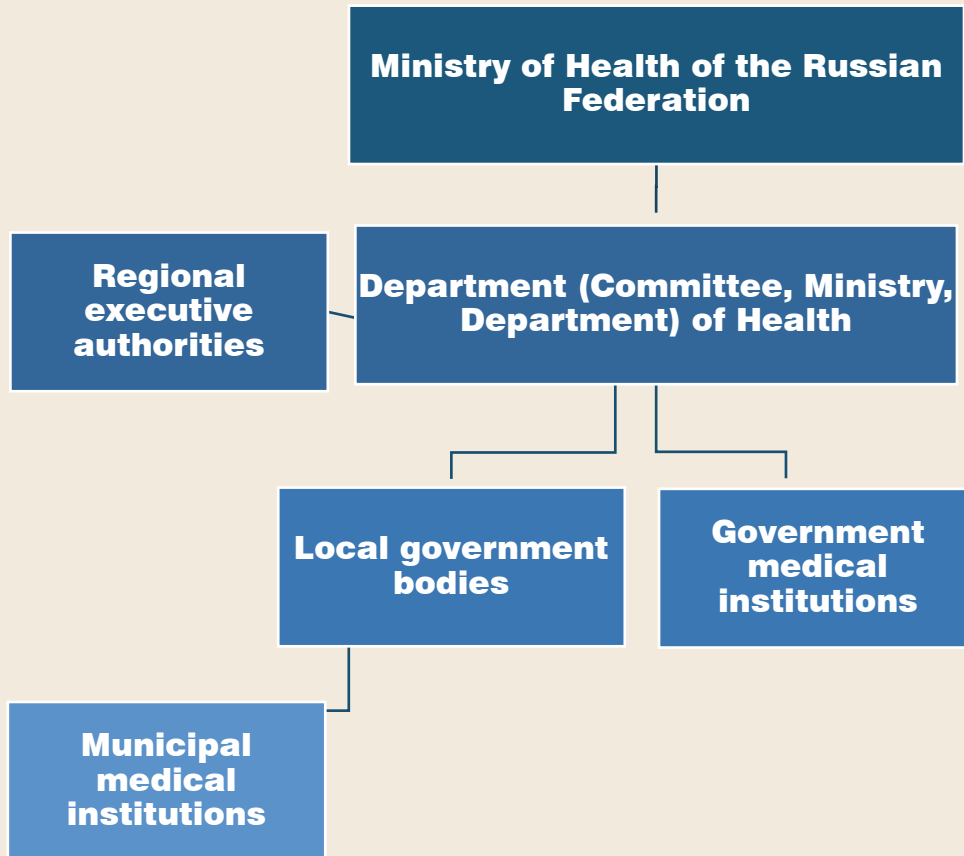
is to study and analyze methods for assessing the provision of medical facilities for citizens

## SUBJECT

is methods of assessing the provision of healthcare facilities

# RUSSIAN EXPERIENCE. REGULATORY FRAMEWORK

## BASIC STRUCTURE



## MAIN DOCUMENTS:

- ☐ Constitution of the Russian Federation
- ☐ Federal Law "On the Protection of the Health of Citizens in the Russian Federation"
- ☐ Federal Law "On the Fundamentals of Public Health Protection in the Russian Federation"
- ☐ Federal Law "On Compulsory Medical Insurance in the Russian Federation"
- ☐ Decree "On Approval of the State program of the Russian Federation "Development of Healthcare"
- ☐ Order of the Ministry of Health of the Russian Federation "On the Requirements for the placement of medical organizations of the state healthcare system and the municipal healthcare system based on the needs of the population"
- ☐ Resolution "On approval of standards of urban planning design of St. Petersburg"

## COMPARISON OF LENINGRAD AND MOSCOW REGIONS

Indicator	Leningrad Region [4]	Moscow Region [4]
Population, thousand people	2035.8	8651.3
Population density, people/km2	24.26	195.16
Executive authority in the field of health	Health Committee of the Leningrad Region	Ministry of Health of the Moscow Region
The number of state medical organizations providing medical care for all types, units	Medical posts, Outpatient clinics, FAP – 77; Healthcare institutions (hospitals and polyclinics) – 81	First-aid posts, outpatient clinics, FAP - 290; Healthcare institutions (hospitals and polyclinics) – 508
The number of medical institutions density per 1000 people	0, 077	0,113
Number of hospital beds per 10,000 people	55.1	64.0
Capacity of outpatient clinics, thousands of visits per shift	50.6	251.4
Number of doctors of all specialties per 10,000 people	36.4	44.7

- ✓ A comparison of the relative indicators of the Moscow and Leningrad regions highlights that there is an imbalance in the assessment of the provision of medical facilities to the population.
- ✓ The population of the Moscow region is **4 times** the population of the Leningrad region.
- ✓ The number of medical institutions exceeds **5 times**.
- ✓ The results may reflect the imperfection of the regulatory framework

# LENINGRAD REGION AS A CASE STUDY

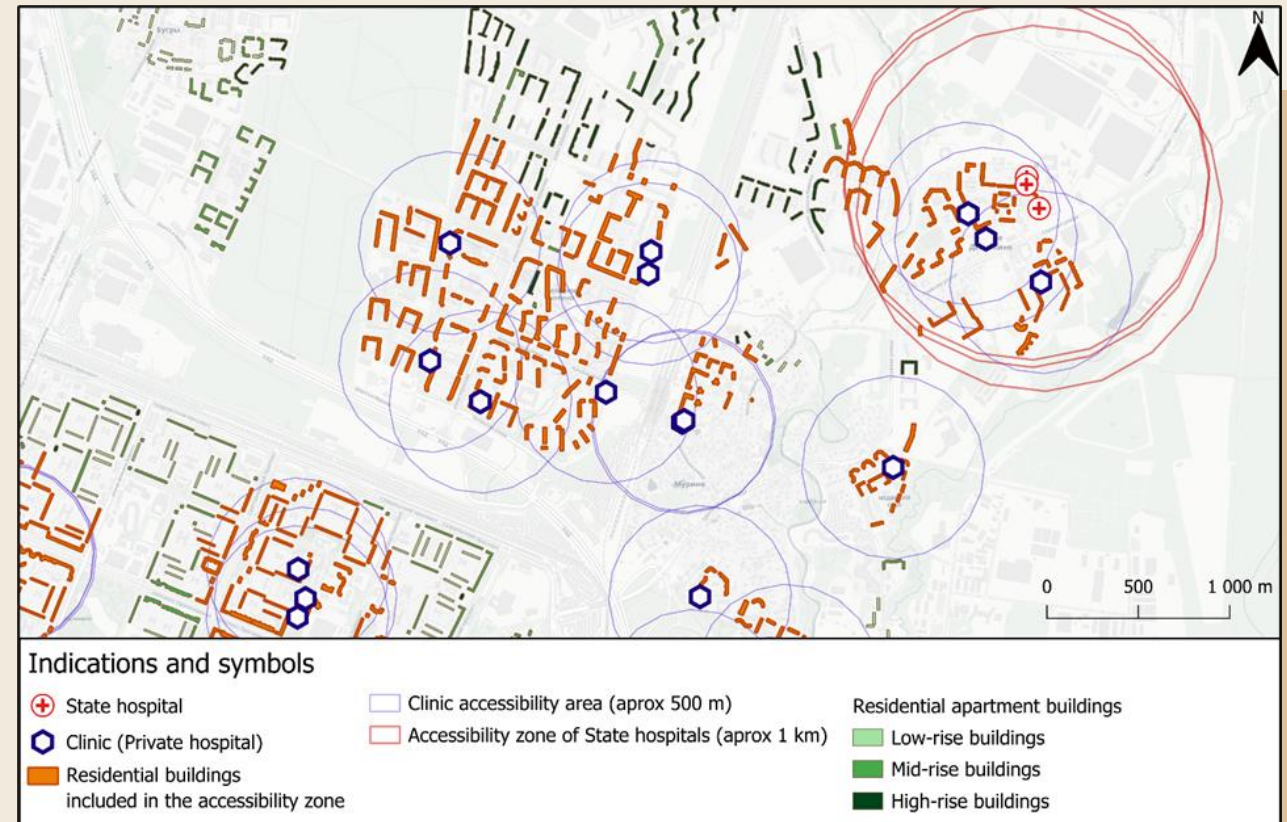
"Development of the Primary Health Care System" (2019-2024) in Leningrad Region.

- **Goal:** Build new clinics, use mobile units, enhance air ambulance services.
- **Case Study: Murino**
  - Analysis via QGIS shows:
    - Only 1 public medical facility; many residential areas lack coverage.
- **Challenges:**
  - Lack of guidelines for healthcare facility placement.
  - Issues for residents in rural areas.
  - Inconsistent data on healthcare classification and workloads.

## Conclusion:

Significant disparities in service accessibility indicate the need for improved healthcare infrastructure and planning.

*The service radius of a public institution is 1000 m [5].*



The range of public services provided by medical institutions in the area of Murino of the Leningrad region

# KEY ISSUES

- 1) The absence or lack of detailed regulatory framework [1].
- 2) The specifics of the distribution of medical institutions by type of funding (public and private) [2].
- 3) Remote areas (rural areas) where there are special criteria for choosing a healthcare facility [3].
- 4) The choice of medical services for citizens, which may not depend on geographical location [2].
- 5) The uneven burden on medical institutions in rapidly growing areas of the city [3].

## THE ISSUES ARE GLOBAL

### 3 GOOD HEALTH AND WELL-BEING



The 2030 Agenda's Goal 3 "Ensure healthy lives and promote well-being for all at all ages."

One of the objectives is to "Access to essential health services".



# WORLDWIDE APPROACHES FOR HEALTH ASSESSMENT

## Key Principles of the WHO's Approach:

- Universal access to affordable and equitable healthcare.
- Removing barriers to health services and ensuring availability across all regions and conditions.
- Promoting integrated and comprehensive approaches to healthcare.

## Significance:

- Guides worldwide health policies and establishes strategic priorities for improving global health systems.
- Supports member states in developing effective healthcare policies that ensure equitable access, quality, and the protection of human rights.

## Harmonized Health Facility Assessment (HHFA) [6]

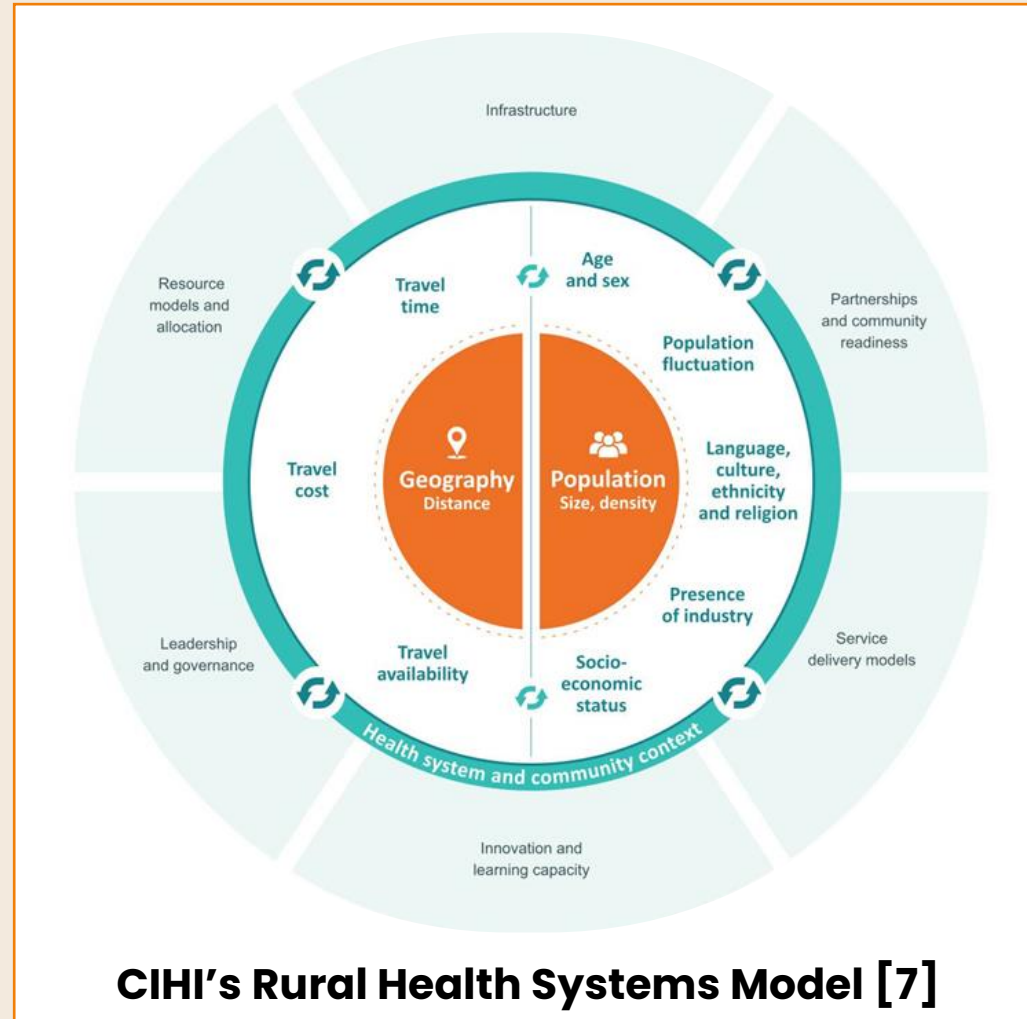
The HHFA consists of four modules:



Developed through multi-stakeholder collaboration, the HHFA builds on global service standards, including the WHO Service Availability and Readiness Assessment (SARA). It is a key product of the Health Data Collaborative (HDC).



# CANADIAN APPROACHES FOR HEALTH ASSESSMENT



## Canadian healthcare facility distribution Standards:

1. Emergency Services: accessible within 30 minutes for urban areas and within 60 minutes for rural settings.
2. Primary Care: within 5 kilometers in urban areas and 20 kilometers in rural areas.
3. Specialized Services: within 1 to 2 hours of travel, depending on the complexity of services offered.
4. Long-Term Care: within 20 to 30 minutes of their home.

## CIHI Role:

- The Canadian Institute for Health Information (CIHI) analyzes healthcare data and optimizes system efficiency.
- Developed a Rural Health Systems Model assessing geographical and population factors influencing health service availability.

## Challenges:

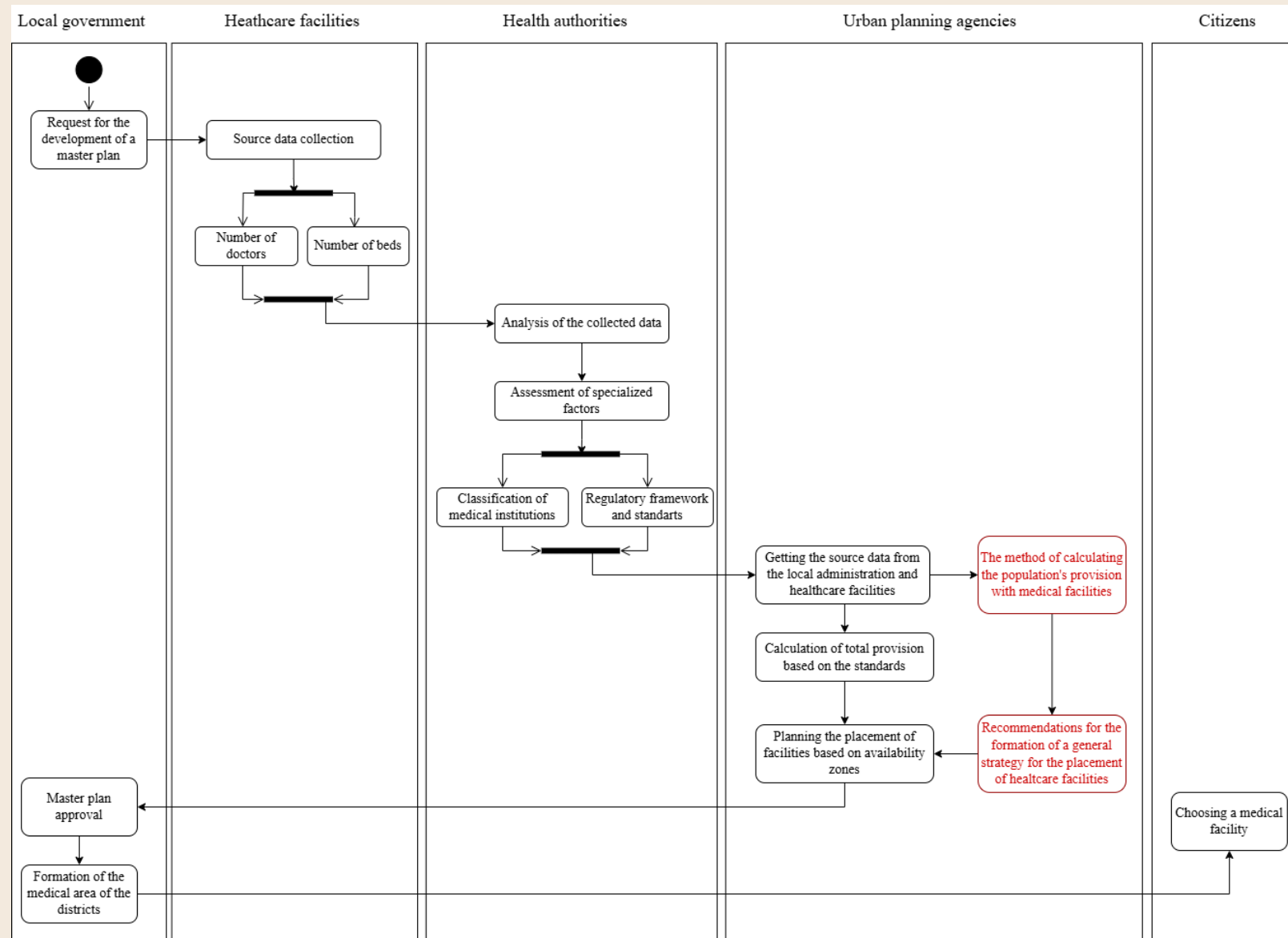
- Similar to Russia, Canada faces low availability of services in rural and remote areas.

# THE PROCESS AND ACTORS

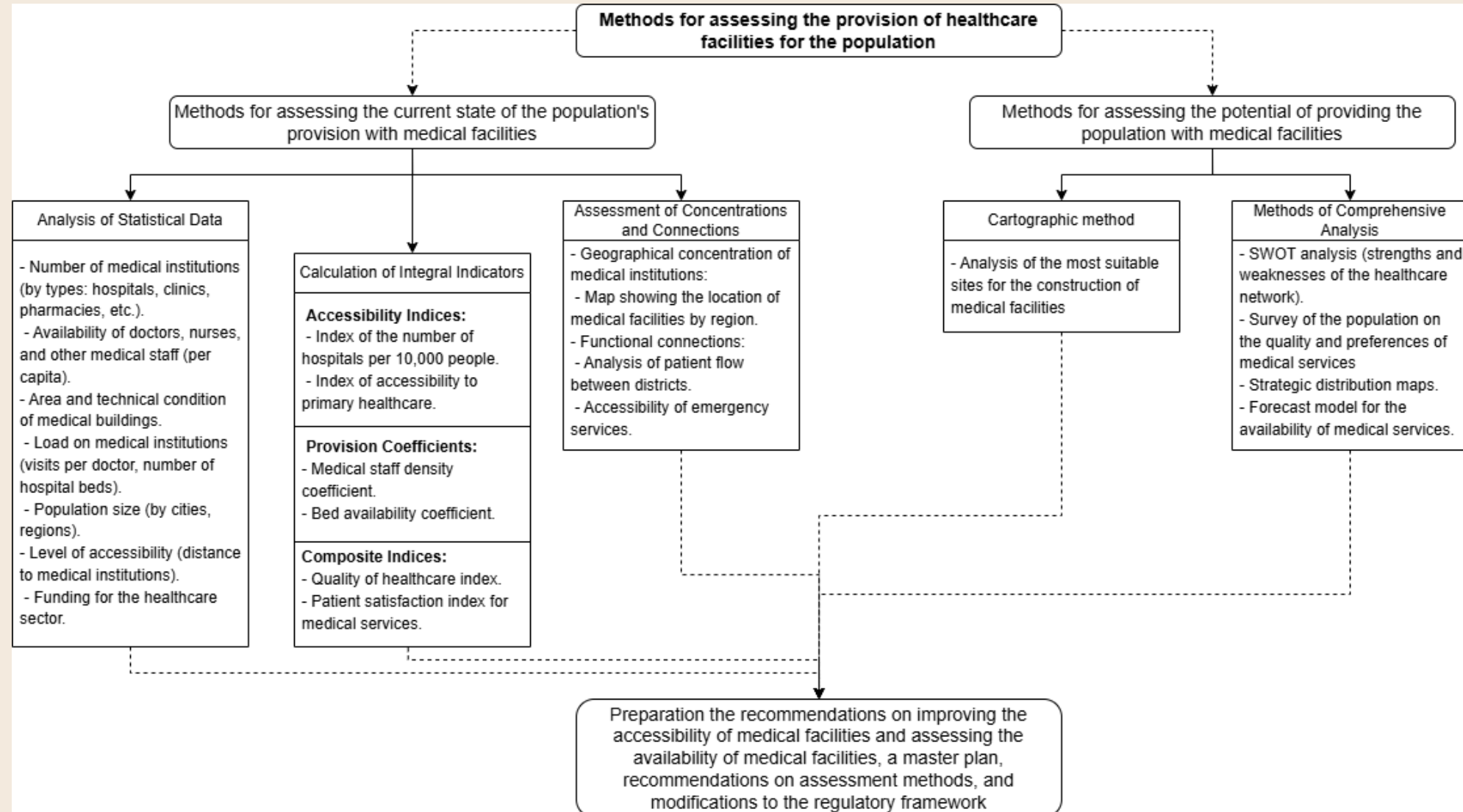
## ACTORS:

- Local government
- Healthcare facilities
- Health authorities
- Urban planning agencies
- Citizens

The key role is to analyze and develop a method for assessing the provision of medical facilities to the population based on available source data, statistics, and regulatory documents.



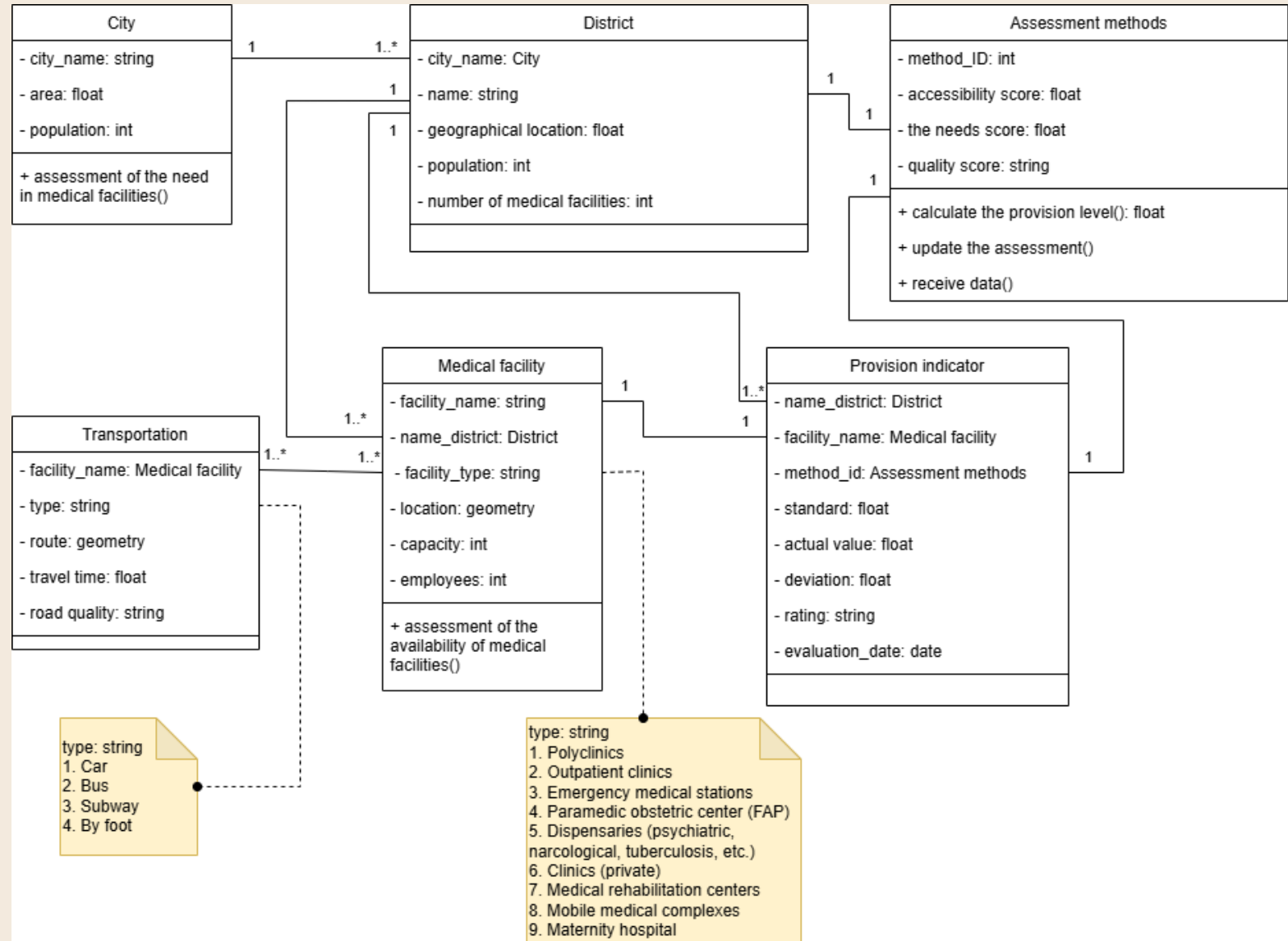
# METHODOLOGY FOR ASSESSING THE PROVISION OF MEDICAL FACILITIES TO THE POPULATION



# ASSESSING THE PROVISION OF MEDICAL FACILITIES TO THE POPULATION

## Base for assessment:

1. Office of the Federal State Statistics Service for St. Petersburg and the Leningrad Region: population, population density, sex and age structure of the population, number of doctors (general practitioners and mid-level staff)
2. OpenStreetMap: routes and transport networks, quality of roads, roadway material, number of lanes.
3. Health Committee of the Leningrad region: existing medical institutions.
4. Unified State Information System in the field of healthcare (EGISZ): data on medical institutions.
5. Committee on Construction of the Leningrad region: data on housing stock.
6. Committee of the Leningrad Region on Transport: data on public transport, traffic, car using.



# CONCLUSION

- **Key concepts** related to the provision of medical facilities were identified and described.
- A review of the regulatory documentation related to rationing and provision of medical facilities was conducted. The review is based on the analysis of the experience of the Russian Federation and foreign experience.
- The **issue** of providing medical facilities was formulated.
- A review of various **methods** used to assess the availability of medical facilities was conducted.
- The **process, actors and activities** of the assessment of provision of medical facilities were formulated.
- A **comprehensive method** for assessing the provision of citizens with medical facilities was proposed.

# RESOURCES

1. Theodore H. Tulchinsky E.A.V. Chapter 12 - Planning and Managing Health Systems // In: The New Public Health (Third Edition). Academic Press, 2014. pp. 613-641.
2. Bryony Dawkins. What factors affect patients' ability to access healthcare? An overview of systematic reviews // Trop Med Int Health. 2021. pp. 1177-1188
3. Ariya Natarajan. Access to Healthcare in Rural Communities: A Bibliometric Analysis // Health Psychology Research. 2023.
4. Regional statistics // Federal State Statistics Service Rosstat. 2024
5. The Government of St. Petersburg. Resolution No. 257 of April 11, 2017 "On Approval of Standards for Urban Planning in St. Petersburg"
6. World Health Organization (WHO): Harmonized Health Facility Assessment (HHFA)
7. Rural Health Systems Model. Canadian Institute for Health Information (CIHI)
8. S.N. Egorenko. Statistical yearbook "Sustainable Development Goals in the Russian Federation" 2024.
9. N.V. Shartova. Territorial accessibility of medical institutions for the residents of the North of Russia // Bulletin of the Moscow University. Series 5. Geography. 2023. Vol. 78. No. 5. 2023. pp. 104-114.
10. T T. Health service coverage and its evaluation // In: Bull World Health Organ. 1978. pp. 295-303.

**THANK YOU FOR YOUR ATTENTION!**

**iT'sMO** *re than a*  
**UNIVERSITY**

**ASSESSMENT OF THE PROVISION OF MEDICAL  
FACILITIES FOR CITIZENS**



**Student:**

**Tolmacheva Elizaveta Maksimovna, C4103**

**Tg: @leasunttt, e-mail: liza.tolmacheva01@gmail.com**





# CANADIAN HEALTHCARE SYSTEM

## Canada Health Act (1984):

- Defines five key principles for healthcare:

1. Public Administration
2. Comprehensive
3. Universality
4. Accessibility: Reasonable access without financial barriers.
5. Portability

## Healthcare Facility Distribution:

Facilities are distributed to ensure equitable access:

- Specialized hospitals in urban areas.
- General hospitals and telemedicine in remote regions.
- Follows standards of accessibility and universality.

## Service Types:

- Outpatient services, hospital care, and long-term care.



Canada's vast territory is similar to Russia's, presenting unique challenges and opportunities for healthcare organization, such as the development of telemedicine and regional health centers. The Canadian system exemplifies high accessibility and quality, providing valuable insights for other nations like Russia.