



Applying a “Medical Deserts” Lens to Cancer Care Services in NW Romania (2009–2022)

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Background

Medical deserts are defined as “areas where population healthcare needs are unmet partially or totally due to lack of adequate access or improper quality of healthcare services caused by:

- insufficient human resources,
- facility shortages,
- long waiting times,
- high costs, or
- socio-cultural barriers.”

In 2021, Romania had **>5% of population with unmet medical needs**, more than double the OECD average (2.3%).

The **poorest quintile** is **3× more likely** to report unmet needs compared to the richest.

Relevance to Cancer Care

- **Cancer = 2nd leading cause of death** in Romania & EU
- Late diagnosis & lack of access → worsened outcomes
- Delays in care directly linked to higher mortality:
 - Surgical delay: +7% mortality
 - Chemotherapy/Radiotherapy delay (4 weeks): +13% mortality

Study Aim & Research Question

AIM

To characterize cancer care services in the North-West region of Romania in relation to the **medical desert** framework.

RESEARCH QUESTION

How can cancer care services from the North-West region of Romania be characterized by using the medical desert definition?

Methodology

Cross-sectional mixed-methods study

Quantitative:

- Source: Activity of Healthcare Units Reports (2009–2022)
- Indicators: HRH, facilities, beds, etc.

Qualitative:

- 15 interviews (8 patients, 7 healthcare workers)
- Interview themes: access, barriers, experience, suggestions
- Thematic analysis using NVivo14
- Sampling: convenience + snowball
- Ethics: NIH-certified interviewer

Quantitative Results: HRH & Facilities

Human Resources in Health (HRH):

- Oncology doctors ↑ in Bihor, Maramureș, Satu-Mare
- Radiotherapy specialists **missing** in Sălaj & underrepresented in Satu-Mare and Bistrița-Năsăud
- Fewer family doctors overall (↓ from 1,698 in 2009 to 1,608 in 2022)

Facilities & Beds:

- Cluj: best infrastructure (hospitals, day beds, FD offices)
- Satu-Mare & Sălaj: fewest oncology beds & day-case units
- Sălaj stagnant in day-care beds since 2009

Qualitative Findings: Themes & Sub-Themes

Medical Deserts in Oncology

- HRH shortages (training, empathy, youth support)
- Lack of radiotherapy/palliative care
- Long waiting times
- High costs (imaging, treatment, travel)
- Socio-cultural barriers (fear, low health literacy)

Experiences within the Health System

- Highly variable; dependent on geography, individual pathways
- Mixed public-private use to bypass limitations

Opportunities for Action

- Prevention, early screening, EHRs, collaboration, youth empowerment

Detailed Quotes (Evidence)



"There are places where services are good... but others where, even if patients want care, it's hard to access it."

— Male MD, Zalău



"We lack staff... not just in numbers but in training. Many leave due to emotional strain."

— Female MD, Cluj-Napoca



"We needed to crowdfund for radiotherapy. Without that, we couldn't afford 250,000 lei."

— Male patient, Maramureș



"The main barrier is fear. Patients don't want to know if it's something serious."

— Male MD, Satu-Mare

Access Pathways

Patient Pathways Are Fragmented

- No universal model
- Often begins locally, then shifts to urban/university centers
- Public system used for core care; private sector for imaging/tests
- Journey improves once a specialist is found

Challenges Identified

Persistent Gaps Include:

- Lack of standardised national pathways
- Uneven care quality across counties
- Absence of radiotherapy/palliative services in rural areas
- Younger HRH not supported professionally
- Lack of data on waiting times & real costs

Opportunities for Action

Respondents Suggest:

- Revise treatment protocols
- Introduce universal electronic health records
- Increase availability of palliative services
- Strengthen inter-unit collaboration
- Focus on prevention, screening, health literacy
- Invest in and empower young medical professionals

Final Conclusions

The North-West region of Romania is **characterised by medical desertification in oncology**.

Cancer care is fragmented, under-resourced, and unequal across counties.

Addressing this requires:

- Strategic HRH and infrastructure allocation
- Digitalization & innovative treatment access
- Cross-sector collaboration (policy, practice, community)

A cluster of colorful geometric shapes, including triangles and polygons in shades of pink, teal, and blue, positioned above the "THANK YOU" text.

THANK YOU



Take-Home Message

Despite limitations, this study offers **the first comprehensive mapping** of cancer care access in NW Romania.

To ensure equitable, high-quality cancer care:
We must act **strategically, collaboratively, and urgently.**



THANK YOU

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