Global Disparities in Access to Healthcare: Coverage, Costs, Workforce Distribution, and a Canada-Focused Case Study

Abstract

Background: Access to appropriate, timely, and affordable healthcare remains uneven across the globe despite international commitments to Universal Health Coverage (UHC). Disparities in service availability, financial protection, and healthcare workforce distribution continue to shape health outcomes across regions.

Methods: This study conducted a comprehensive secondary data analysis using publicly available datasets from the World Health Organization (WHO), World Bank, OECD, and national health agencies. Key indicators included the UHC Service Coverage Index (SCI), out-of-pocket (OOP) health expenditure, physician and nurse density, wait times, and regional access patterns. A focused case study on Canada was included to examine challenges within a high-income universal healthcare system.

Results: Significant global inequities persist. Low-income regions face critical shortages in healthcare workers and high financial barriers, while high-income regions demonstrate better coverage but ongoing access issues. Canada, despite high healthcare spending, experiences long wait times, physician shortages, and uneven access to primary care.

Conclusions: Achieving equitable healthcare access requires integrated strategies addressing workforce shortages, financial protection, system efficiency, and region-specific policy reform. Canada's experience illustrates that universal coverage alone is insufficient without strong system capacity and equitable resource distribution.

1. Introduction

Access to healthcare is a fundamental determinant of population health and a core target of the United Nations Sustainable Development Goals (SDG 3.8), which aims to achieve Universal Health Coverage (UHC). UHC is defined as ensuring that all individuals receive essential health services of sufficient quality without suffering financial hardship.

Despite progress, an estimated 4.6 billion people worldwide lack access to essential health services, and over 2 billion people experience financial hardship due to healthcare costs. These gaps persist across income levels, geographic regions, and demographic groups. While high-

income countries often demonstrate broad service coverage, they are not immune to access challenges, including workforce shortages and system inefficiencies.

This study examines global healthcare access disparities through multiple dimensions: service coverage, financial burden, workforce distribution, and regional variation; while situating Canada as a detailed case study within the global landscape.

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2. Methods

2.1 Data Sources

This analysis used secondary data from the following sources:

- World Health Organization (WHO):
  - Universal Health Coverage (UHC) Monitoring Reports
  - Health Inequality Data Repository
- World Bank: Global Monitoring Reports on financial protection
- OECD: *Health at a Glance* reports (2023–2025)
- National agencies (Canada):
  - Statistics Canada
  - Canadian Institute for Health Information (CIHI)

2.2 Key Indicators

- UHC Service Coverage Index (SCI) (0–100 scale)
- Out-of-Pocket (OOP) health expenditure (% of total health spending)
- Physician and nurse density (per 1,000 or 10,000 population)
- Wait times and unmet care needs
- Regional and socioeconomic disparities

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3. Global Results

3.1 Service Coverage

Globally, the UHC Service Coverage Index has increased from approximately 54 in 2000 to 71 in recent years, indicating gradual improvement. However, coverage remains highly unequal:

- Africa: SCI averages below 50, reflecting limited access to essential services.
- South and Southeast Asia: Moderate gains, but uneven coverage between urban and rural areas.

- Europe and OECD countries: High overall SCI, though gaps persist for vulnerable populations.

Progress in coverage has slowed since 2019, raising concerns about stagnation in UHC advancement.

3.2 Financial Barriers and Healthcare Costs

Out-of-pocket spending remains a major obstacle to access:

- Approximately 1.6 billion people experience catastrophic health expenditures annually.
- In low-income countries, OOP spending often exceeds 40% of total health expenditures, primarily driven by medication costs.
- Even in high-income countries, rising co-payments and uncovered services create financial strain for low-income households.

Financial hardship not only limits access but contributes directly to poverty and delayed care.

3.3 Workforce Distribution and Doctor–Patient Ratios

Healthcare workforce availability is one of the strongest predictors of access:

- Over 55% of countries have fewer than 20 physicians per 10,000 people.
- Low-income regions may have fewer than 1 physician per 10,000 population.
- Nearly half of the world's physicians serve only 20% of the global population, primarily in very high-income countries.

Nurse shortages compound these issues, particularly in rural and underserved regions, limiting both acute and preventive care capacity.

3.4 Regional Inequalities

- **Africa:** Severe workforce shortages and high financial barriers push millions into poverty.
- **Asia:** Rapid population growth strains systems despite improvements in service coverage.
- **Americas:** Strong coverage overall, but inequities persist among marginalized populations.
- **Europe:** High coverage, yet socioeconomic gradients in access remain evident.

4. Canada: A Case Study in Access within a Universal System

4.1 Overview

Canada operates a publicly funded universal healthcare system that guarantees access to medically necessary physician and hospital services. However, access does not always translate to timely care.

Despite being among the highest healthcare spenders per capita, Canada ranks near the bottom among peer countries for physician availability, hospital bed density, and diagnostic capacity.

4.2 Physician Density and Primary Care Access

- Canada has approximately 2.8 physicians per 1,000 people, below the OECD average.
- Nearly 20% of Canadians lack a regular primary care provider, with higher rates among younger adults, lower-income individuals, and rural residents.
- Rural regions house ~19% of the population but are served by only ~8% of physicians.

Specialist shortages; particularly in geriatrics, psychiatry, and neurology are growing concerns as the population ages.

4.3 Wait Times and Regional Variation

Canada experiences some of the longest wait times among high-income universal systems:

- Median wait from GP referral to treatment exceeds 28 weeks nationally.
- Atlantic provinces consistently report the longest delays.
- Access varies significantly by province, reflecting decentralized governance.

4.4 Financial Protection and Gaps

While core physician services are publicly covered:

- Prescription drugs, dental care, mental health services, and physiotherapy often require private insurance or OOP payment.

- These gaps disproportionately affect lower-income Canadians and increase emergency department use.

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5. Solutions and Policy Implications

5.1 Global Strategies

- Expand financial protection mechanisms to reduce catastrophic spending.
- Invest in health workforce training and equitable distribution.
- Strengthen primary care and preventive services.

5.2 Canada-Specific Solutions

1. **Expand the Healthcare Workforce**
    - Increase medical school and residency positions.
    - Improve retention through better working conditions.
    - Accelerate credential recognition for internationally trained professionals.
2. **Strengthen Primary Care**
    - Expand team-based care models (nurse practitioners, pharmacists).
    - Improve continuity of care through patient enrollment models.
3. **Reduce Wait Times**
    - Centralized referral systems.
    - Better use of digital triage and interoperable health records.
4. **Broaden Coverage**
    - National pharmacare and expanded mental health coverage.
    - Public investment in preventive services to reduce downstream costs.
5. **Target Regional Inequities**
    - Province-specific strategies informed by national best practices.

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6. Conclusion

Global healthcare access remains deeply unequal, shaped by financial barriers, workforce shortages, and systemic inefficiencies. Canada's experience demonstrates that universal coverage alone is insufficient without adequate provider supply, system coordination, and equitable access to primary care.

Addressing these challenges requires sustained investment, policy reform, and data-driven strategies that prioritize both equity and efficiency. Bridging these gaps is essential to improving health outcomes and achieving true universal healthcare access worldwide.

References

1. World Health Organization. Universal Health Coverage (UHC). WHO Fact Sheet. World Health Organization; latest update.
2. World Health Organization, World Bank. Tracking Universal Health Coverage: 2023 Global Monitoring Report. Geneva: WHO; Washington, DC: World Bank.
3. World Health Organization. Health Inequality Data Repository. WHO; released 2023.
4. World Health Organization. Global Health Expenditure Database. WHO.
5. World Bank. Global Monitoring Report on Financial Protection in Health. World Bank Group.
6. Organisation for Economic Co-operation and Development (OECD). Health at a Glance 2023. Paris: OECD Publishing.
7. Organisation for Economic Co-operation and Development (OECD). Health at a Glance 2025: OECD Indicators. Paris: OECD Publishing.
8. Canadian Institute for Health Information (CIHI). International Survey on Primary Health Care. CIHI; 2023.
9. Canadian Institute for Health Information (CIHI). Health Workforce in Canada. CIHI.
10. Statistics Canada. Access to a Regular Health Care Provider and Specialist Wait Times. Government of Canada.
11. Statistics Canada. Health Care Utilization and Unmet Health Care Needs in Canada. Government of Canada.
12. Barer ML, Stoddart GL. Toward Integrated Medical Resource Policies for Canada. *Canadian Medical Association Journal*.
13. World Health Organization. Global Strategy on Human Resources for Health: Workforce 2030. WHO.
14. Scheffler RM, Campbell J, et al. Forecasting Imbalances in the Global Health Labor Market. *Human Resources for Health*.
15. OECD. Doctors and Nurses: Workforce Density and Distribution. OECD Health Statistics Database.
16. Human Rights Watch. Global Healthcare Funding Inequalities and Out-of-Pocket Spending. Human Rights Watch.
17. Pan American Health Organization (PAHO). Universal Health Coverage in the Americas: Regional Insights. PAHO.

18. World Health Organization Regional Office for Africa. Health Financing and Poverty in Africa.
    WHO AFRO.
19. Canadian Medical Association. Health Workforce Shortages and Access to Care in Canada.
    CMA Policy Report.
20. CIHI. Wait Times for Priority Procedures in Canada.
    Canadian Institute for Health Information.