Policy Analysis of Telemedicine: Addressing Global Health Disparities and an Emerging Framework in Developmental Aid

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The 17th Asia Telemedicine Symposium

December 15-16 at Kyushu University

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Introduction to Medical Disparities

Which has a more serious impact on access to health care?

POVERTY

ECONOMIC GAP

Introduction to Medical Disparities

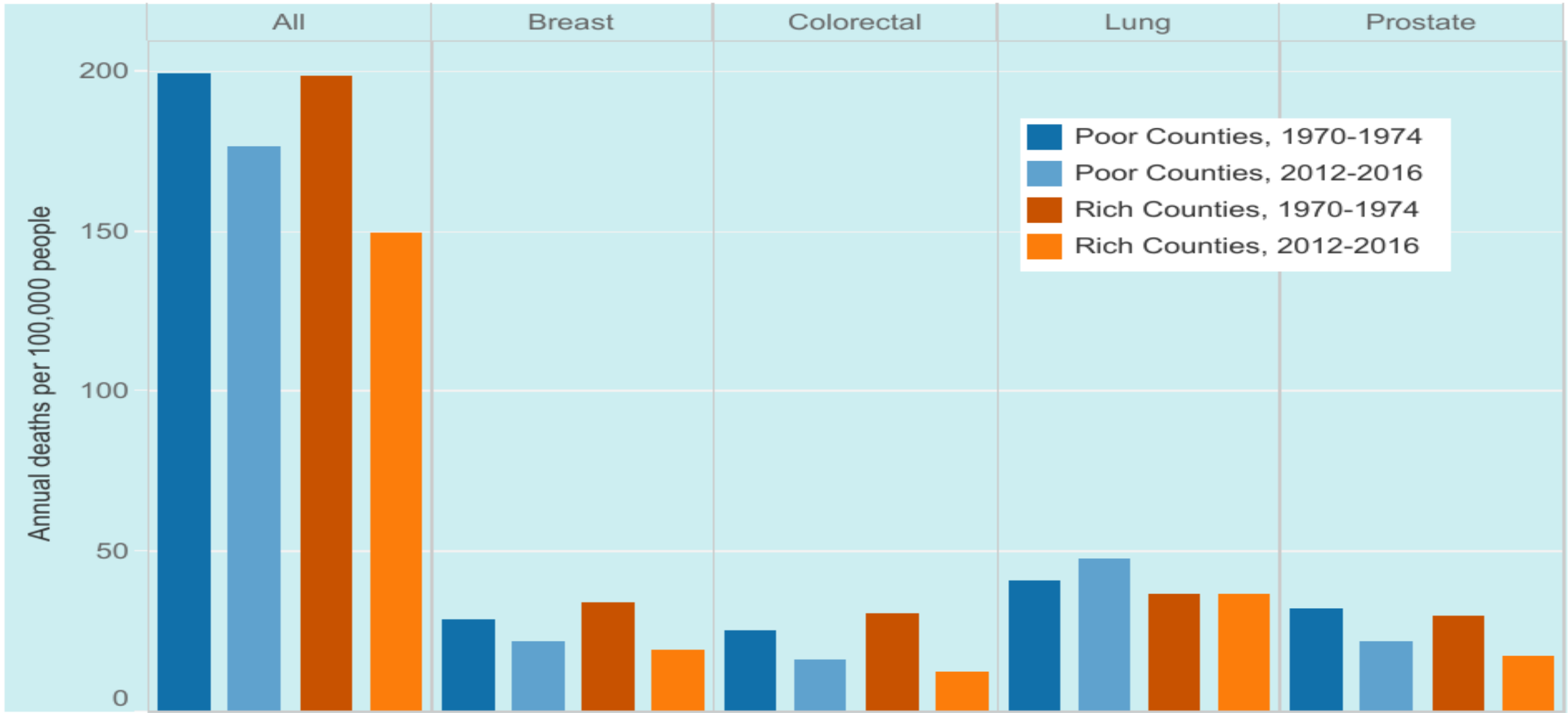
Which has a more difficult to access sufficient health care service?

PEOPLE IN AFRICA

PEOPLE LIVING IN SLUM IN NYC

U.S. Cancer Deaths Have Declined More Quickly Among the Rich

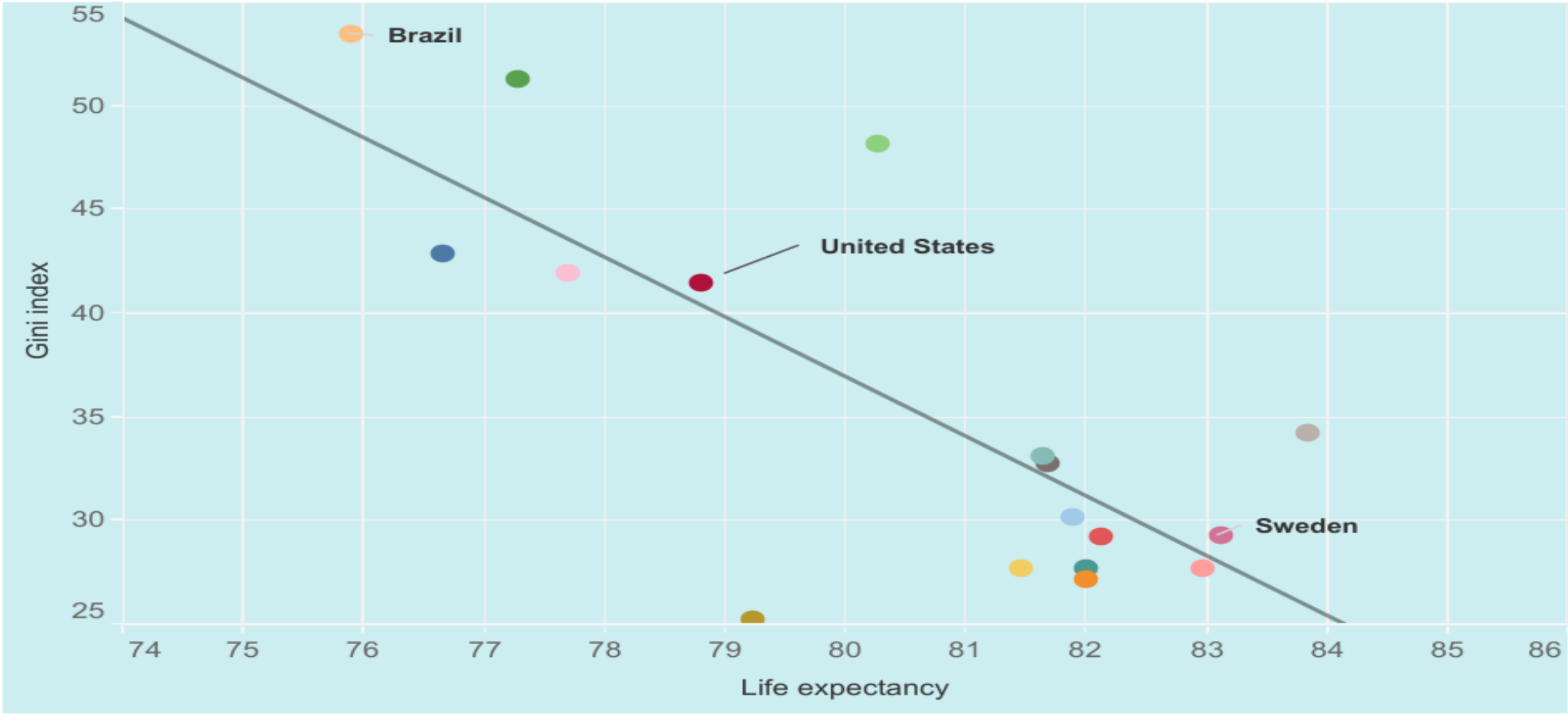
Rich and poor county cancer death rates, 1970-1974 v. 2012-2016



Source: American Cancer Society

People Live Longer in More Equitable Countries

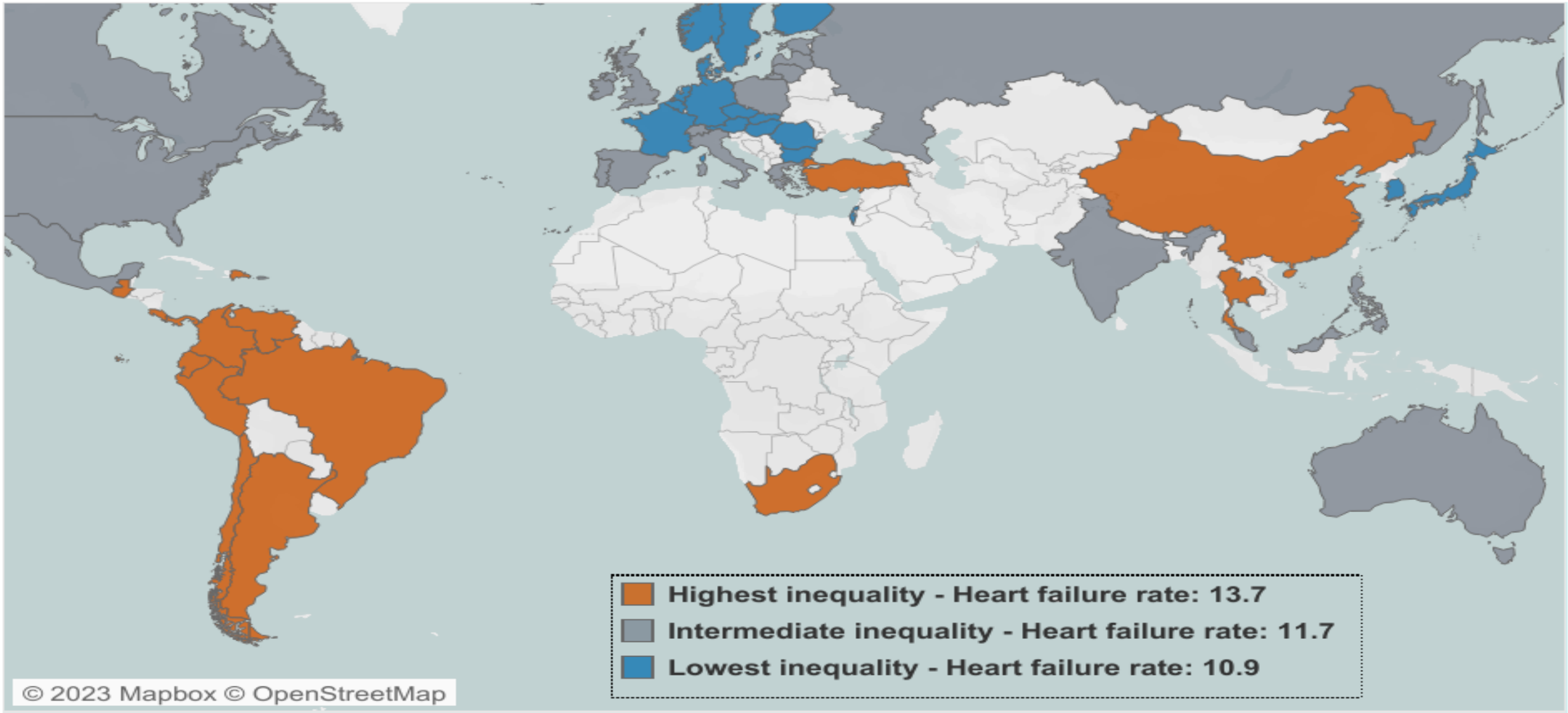
Life expectancy and inequality, select countries, 2019



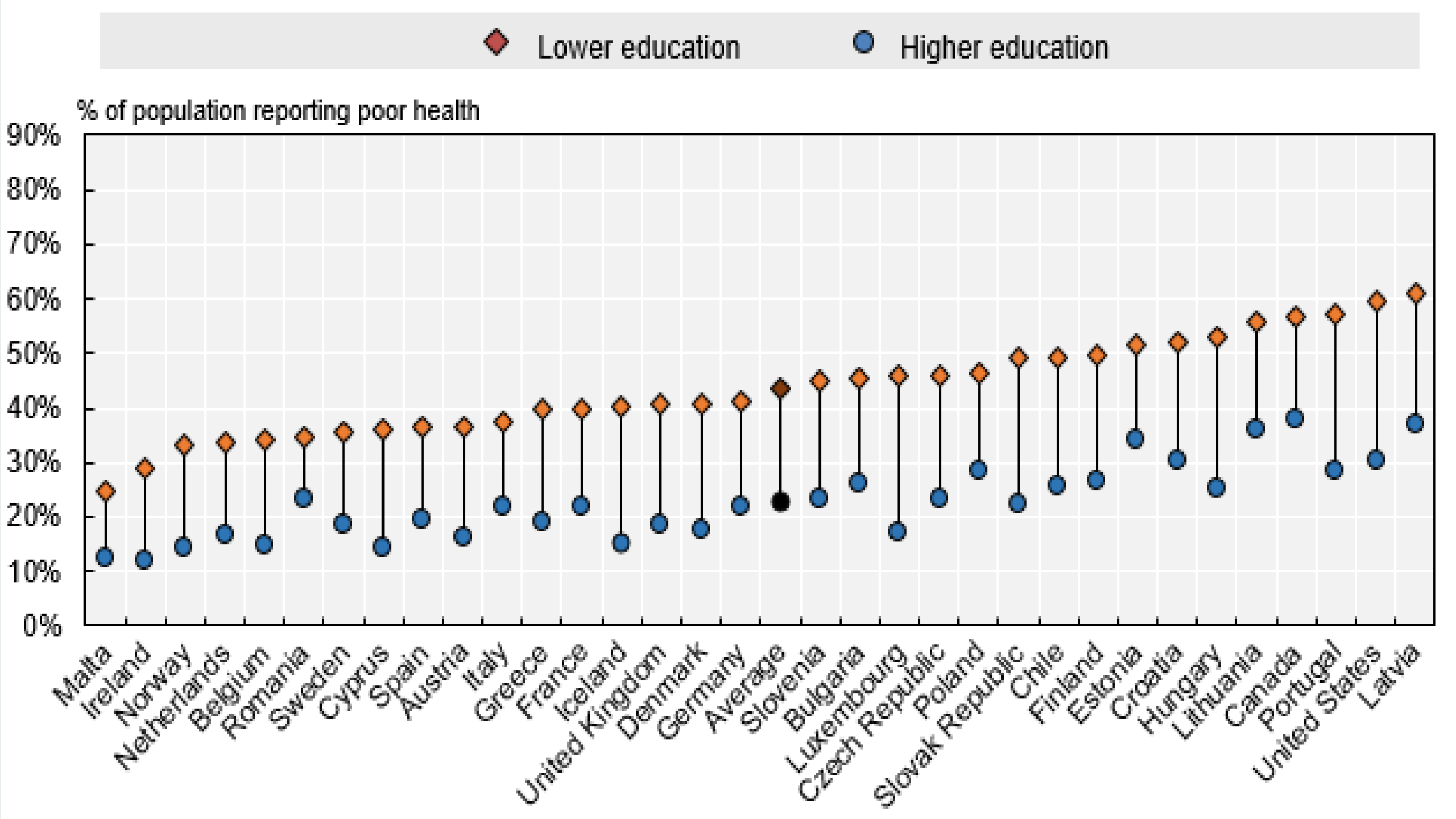
Source: World Bank

More Unequal Nations Have Higher Heart Failure Rates

Countries by inequality and cardiovascular deaths and hospitalizations per 100 person-years



Source: Journal of the American College of Cardiology, 2019


Lower education
Higher education
% of population reporting poor health
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Malta
Ireland
Norway
Netherlands
Belgium
Romania
Sweden
Cyprus
Spain
Austria
Italy
Greece
France
Iceland
United Kingdom
Denmark
Germany
Average
Slovenia
Bulgaria
Luxembourg
Czech Republic
Poland
Slovak Republic
Chile
Finland
Estonia
Croatia
Hungary
Lithuania
Canada
Portugal
United States
Latvia

Introduction to Medical Disparities

Which has a more serious impact on access to health care?

POVERTY

ECONOMIC GAP

Introduction to Medical Disparities

Poverty vs Economic Gap Debate

- Still ongoing debate…but,
- **Impact of Poverty**:

Poverty creates direct economic barriers for individuals and families, limiting their ability to afford healthcare services.

- **Impact of Economic Gap**:

Economic gap leads to an uneven distribution of medical resources between different social strata and regions, resulting in disparities in the quality and access to healthcare.

Introduction to Medical Disparities

How Telemedicine can solve…

Addressing Poverty:

- Telemedicine can enable savings in transportation costs and time.
- However, the use of telemedicine requires internet connectivity and appropriate devices, necessitating support for the impoverished to access these technologies.

Addressing Economic Gap:

- Telemedicine can help alleviate the inequalities in medical resources between regions.
- It is constrained by the availability of technology and internet connectivity, as well as the digital literacy of users, particularly in underdeveloped and rural areas.

Introduction to Medical Disparities

International Cooperation and Partnership are necessary

- Technology and Knowledge Sharing:
- Policy Formulation and Regulatory Harmonization:
- Funding and Resource Provision:
- Public Health and Disease Management:
- Education and Training:

Development Aid

- Financial Assistance
- Technical Assistance
- Participatory Assistance

Development Aid

What is the current stage of telemedicine development?

- **Financial Assistance**:

Funds from global entities support telemedicine’s technological and infrastructural development.

- **Technical Assistance**:

Expertise from developed nations guides telemedicine platform design and healthcare worker training.

- **Participatory Assistance**:

Local community involvement in telemedicine projects ensures alignment with regional healthcare needs.

Case Studies

- International Organizations
- States
- Business
- Non-Profit Sectors

  (NPOs, NGOs)

Case Studies

International Organizations

World Health Organization (WHO):

- Enhances global telemedicine services.
- Creates guidelines and best practices.
- Supports telemedicine projects for health issues.
- Released a guide for sustainable telemedicine use.
- Focuses on equitable health outcomes and overcoming barriers in accessing services.

Case Studies

International Organizations

International Development Agencies (World Bank, ADB)

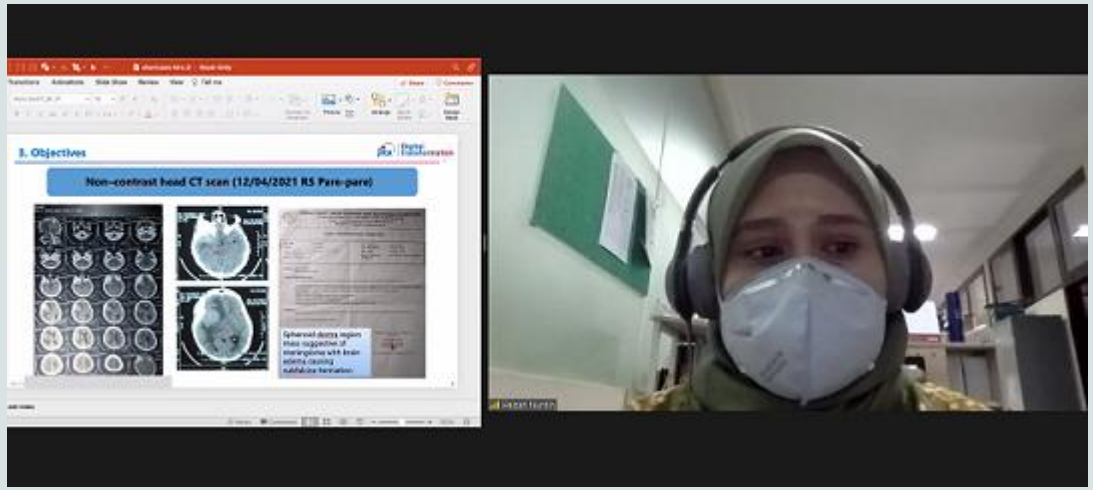
- Support telemedicine in developing countries.
- Provide financial aid for medical infrastructure and telemedicine integration.
- Aim to improve healthcare access and quality in remote regions.
- Focus on deploying digital health solutions, including telemedicine.

Case Studies

States

- **United States:** Telehealth services are expanding rapidly, especially through text, phone, and video consultations, supported by Medicare reimbursements.
- **United Kingdom:** The UK boasts a mature telemedicine market with clear regulations and reimbursement policies.
- **Norway:** Well-established telehealth solutions, including digital pathology for cancer diagnosis, are used extensively.
- **Switzerland:** Switzerland's telemedicine adheres to the same laws as in-person consultations and partners with private insurance companies.

Case Studies



Japan

- Japan International Cooperation Agency (JICA) provides ODA support for telemedicine in developing countries, focusing on remote healthcare in response to COVID-19.
- JICA initiated a global survey in December 2020 to develop a health project using remote technology to support ICU care in developing nations.
- This project connects Japanese ICU specialists with healthcare experts in developing countries through a unique communication system, enabling them to offer technical advice and training.
- The project is implemented in multiple countries, including Bangladesh, Indonesia, Tonga, Palau, Kenya, Senegal, El Salvador, Bolivia, Guatemala, and Mexico.

Has the ministry of health, a governmental agency or an academic institution collected any data or conducted any studies on the impact of telemedicine on access to health care during the COVID-19 pandemic?	Has the ministry of health, a governmental agency or an academic institution collected patient and/or provider experience and outcome measures related to the use of telemedicine services?	Beyond patient and provider experience and outcome measures, has the ministry of health, a governmental agency or an academic institution collected other indicators or metrics to assess the quality of telemedicine?
Australia	Australia*	Belgium
Austria	Belgium	Canada
Belgium	Canada	England
Canada	Costa Rica	Estonia
England	Czech Republic	France
Estonia	England	Israel
France	Estonia	Mexico
Ireland	Finland	Norway
Israel	France	United States
Japan	Ireland	Costa Rica
Latvia	Israel	Czech Republic
Lithuania	Mexico	Finland
Mexico	Netherlands	Hungary
Netherlands	Norway	Ireland
New Zealand	Poland*	Japan
Norway	United States	Latvia
Sweden	Japan	Luxembourg
United States	Korea	Poland
Costa Rica	Latvia	Portugal
Czech Republic	Lithuania	Slovenia
Finland	Luxembourg	Türkiye
Korea	Portugal	Australia
Luxembourg	Slovenia	Austria
Poland	Türkiye	Korea
Portugal	Austria	Lithuania
Slovenia	Hungary	Netherlands
Türkiye	New Zealand	New Zealand
Hungary	Sweden	Sweden

Case Studies

Business Sectors

- **Technology Provision:** Leading technology companies, such as Microsoft and Google, have developed remote healthcare platforms and cloud-based solutions, making them available to healthcare institutions worldwide.
- This enables healthcare facilities to efficiently offer remote medical services.
- **Partnerships:** Companies are actively participating in telemedicine projects in developing countries, partnering with governments and NGOs.
- For instance, Philips is supporting telemedicine projects in various African nations.

Case Studies

Non-Profit Sectors

- **Access to Local Communities:**

NPOs and NGOs provide remote healthcare services to local communities, reducing disparities in healthcare access. This includes operating mobile medical clinics and providing training to healthcare professionals.

- **Awareness and Education:**

These organizations educate and raise awareness among local residents and healthcare professionals about the importance of telemedicine. They engage in advocacy and educational activities.

Conclusion and Challenges

Challenges:

1. **Data Availability**: Limited comprehensive data on the effectiveness and impact of telemedicine projects in various regions.
   (e.g. Global Observatory on E-Health;)
2. **Technological Disparities**: Differences in technological infrastructure between countries can affect the implementation and outcomes of telemedicine projects.
3. **Regulatory and Policy Issues**: Diverse and sometimes conflicting regulations across countries can complicate international telemedicine initiatives.

Conclusion and Challenges

Opportunities and Significance:

1. **Improving Healthcare Access**: Telemedicine can significantly enhance healthcare access in remote and underserved areas.
2. **Cost-Effective Solutions**: Offers a cost-effective alternative to traditional healthcare, especially in resource-limited settings.
3. **Capacity Building**: Provides opportunities for knowledge transfer and capacity building in healthcare sectors of developing countries.
4. **Global Health Equity**: Contributes to reducing global health disparities and achieving Sustainable Development Goals.

Thanks for Listening

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