

# Themes in Sustainable Development

## Equitable Access to Sustainable Health Systems (SDG 3 & SDG 10)

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## Food for thought: Who gets to be healthy?

- What determines whether people receive the healthcare they need?
- Where you live should not determine whether you live.

*Health equity is a matter of social justice...*



# Key themes

- ✓ **Equity:** Fair distribution of health resources based on need
  - Not everyone needs the same level of care
  - Fairness means allocating resources based on need
- ✓ **Access:** Physical, financial, and social ability to obtain care
  - Healthcare can exist—but still be inaccessible
  - Barriers: cost, distance, social exclusion
- ✓ **Sustainability:** Health systems that endure over time without exclusion
  - Systems must: survive financially, adapt to crises, serve future populations

# What is a health system?

**Health is produced by systems—not just by medical care.**

- ✓ A health system includes all organizations, people, and actions whose primary purpose is to improve health.
- ✓ It goes beyond hospitals to include:
  - Public health and prevention
  - Primary, secondary, and long-term care
  - Financing and insurance mechanisms
  - Regulation, governance, and policy
- ✓ Health systems operate at multiple levels: local, national, and global.

# Aims of health systems

**Health systems pursue multiple, often interconnected goals:**

- ✓ **Improving population health:** Reducing mortality, morbidity, and health risks.
- ✓ **Ensuring equitable access:** Providing care based on need, not ability to pay.
- ✓ **Financial protection:** Preventing individuals and households from falling into poverty due to healthcare costs.
- ✓ **Quality and responsiveness:** Delivering safe, effective, and people-centered care.

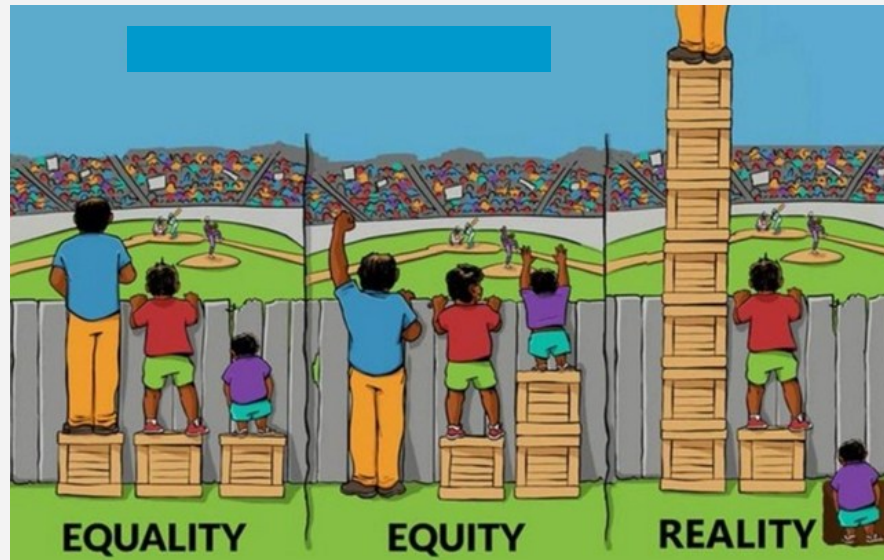
Health systems must balance access, quality, and financial sustainability.

# Health systems and social policy

- Health systems are embedded within **broader social and economic policy frameworks.**
- Health outcomes are strongly influenced by:
  - Income and employment
  - Education
  - Housing and living conditions
  - Social protection systems
- Policies outside the health sector can have major health impacts (e.g., taxation, welfare, labor laws).
- ✓ **Health systems reflect social choices and cannot address inequality alone.**

# Equality vs equity

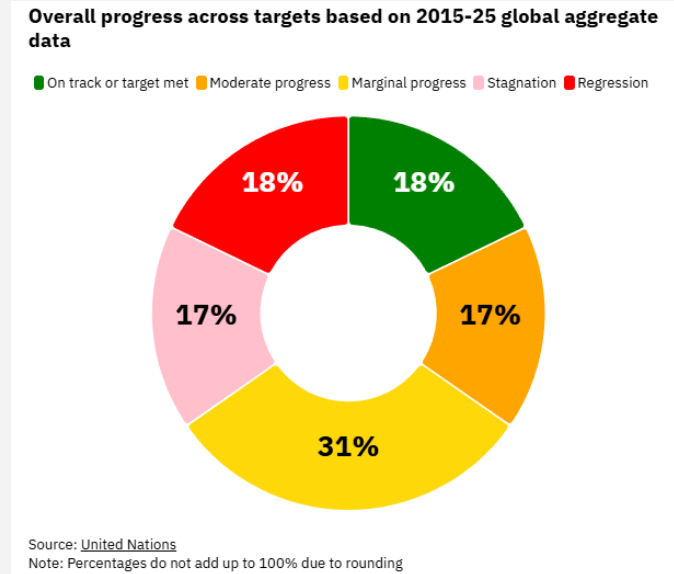
- ✓ **Equality:** everyone receives the same support
- ✓ **Equity:** people receive different levels of support according to need
- ✓ **Reality:** structural barriers may remain even when support is provided



# Social Determinants of Health



# Sustainable Development Goals



- Only 18% of the SDGs are on track, with nearly half progressing too slowly and close to a fifth even regressing.
- Despite progress in health, education, and energy and digital access, significant challenges persist in **poverty, gender equality, food security, and health outcomes.**

# Health and equity are interdependent

- **SDG 3 Good Health and Well-being:** Ensure healthy lives and promote well-being for all at all ages, including universal health coverage, disease prevention, and equitable access to quality care.
- **SDG 10 Reduced Inequalities:** Reduce inequalities within and among countries by promoting social inclusion, equal opportunity, and fair distribution of resources.

## The Link

- Health inequalities often reflect broader social and economic inequalities.
- Progress toward SDG 3 depends on addressing barriers targeted by SDG 10, including poverty, exclusion, and unequal access to services.
- Reducing inequality is essential to achieving health for all.

# Global health inequality

## What is health equity?

- Major **disparities** in health outcomes between and within countries.
- Outcomes such as life expectancy, infant/child mortality, etc. differ by income and geography.
- Fair access (not equal access).
- Remove avoidable disparities.

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ORIGINAL PAPER

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## The association between social development and population health: a cross-sectional study across countries of different economic growth

Nikolaos Kontodimopoulos<sup>1,2\*</sup>

### Abstract

**Background:** Social Determinants of Health (SDH) are important in explaining why some countries enjoy better health than others. This empirical study highlights controversies in the literature on the relationship between socio-economic development and health, and investigates how the relationship might vary in countries with different economic growth.

**Methods:** The sample consists of 172 countries, and recent cross-sectional data was collected from the World Bank's "Data Bank". Population health was proxied with life expectancy, infant mortality and under-five mortality, and socio-economic conditions were expressed with GNI/capita, unemployment rate, poverty, Gini index, educational attainment, public spending on health and physician density. Countries were categorized into three groups as low / lower middle-, upper middle- and high-income according to World Bank thresholds. Ordinary least squares regression was used to model the relationships.

**Results:** The association between socioeconomic conditions and health differed between countries of different economic development. Poverty, educational attainment, income inequality, and physician density were the strongest contributors to health. Higher economic development had a stronger relationship with health in richer countries, and government commitment to health care in poorer ones.

**Conclusion:** Based on evidence from studies such as this one, researchers and policymakers globally could commit to acting together on SDH, and to aligning resources from different sectors to formulate interventions aiming to improve population health.

**Keywords:** Health inequities, Health policy, National income, Population health, Social determinants of health, Socioeconomic status

### Introduction

The World Health Organization defines social determinants of health (SDH) as *"the conditions in which people are born, grow, work, live and age, and the wider set of forces and systems shaping the conditions of daily life"* [1]. From a SDH perspective, inequities in power, money

and resources are important contributors to inequities in health, disease and mortality [2]. Much research has been conducted and documents the different ways in which social, economic, political and cultural environments affect health. The resulting evidence, although mostly descriptive, has highlighted the need for political action

# Measuring health equity

Health equity cannot be improved unless inequalities are made visible, quantified, and monitored across population groups.

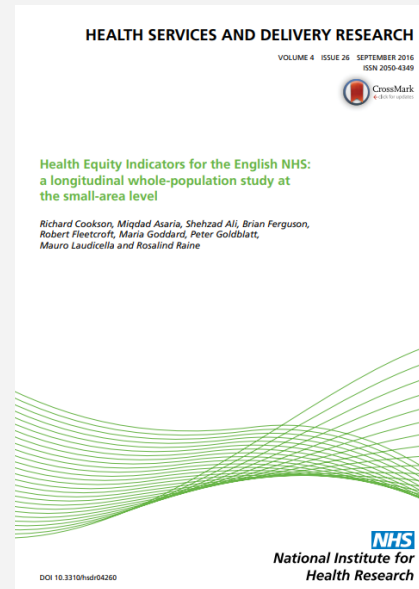
## Common indicators used to identify disparities:

- **Concentration Index:** Shows whether health or healthcare use is concentrated among richer or poorer groups.
- **Horizontal Equity:** Equal need should mean equal access to care.
- **Catastrophic Health Expenditure:** Measures when healthcare costs cause financial hardship.
- **Unmet Need for Care:** Captures people unable to receive needed care.
- **Equity Stratifiers:** Break data down by income, geography, gender, ethnicity, disability, age, or migration status.

# Evidence base for measuring health equity

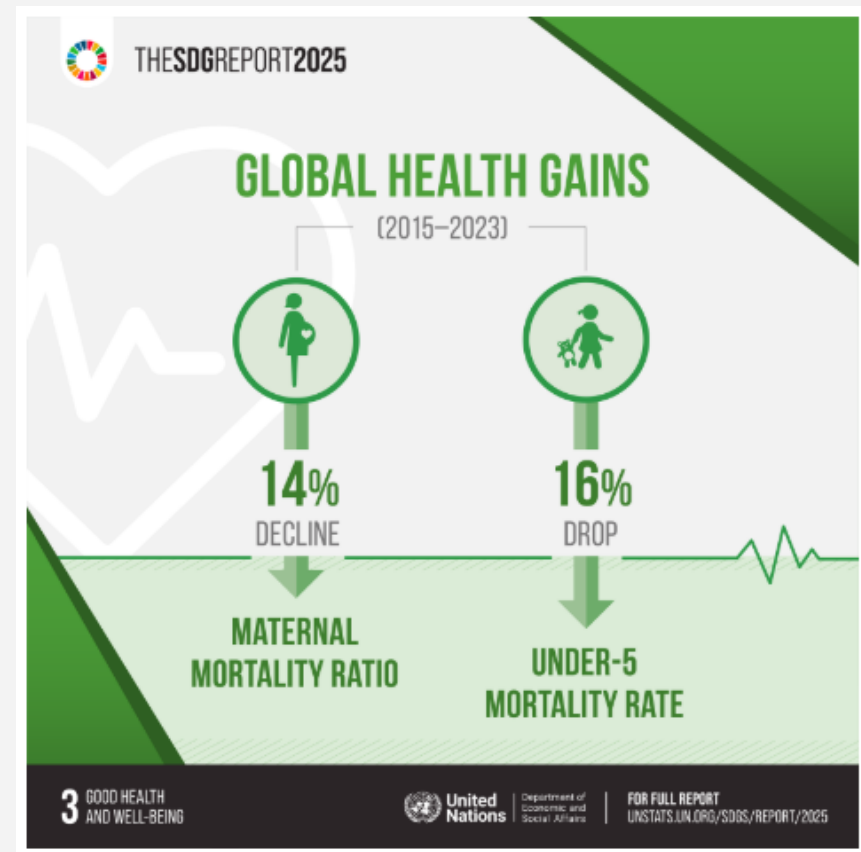
These and other studies show how **health equity can be translated into measurable indicators**, allowing health systems to track whether access, quality, and outcomes differ across population groups.

The key point is that **equity is not only a value judgment**—it can be monitored using systematic data.



# Child mortality gap

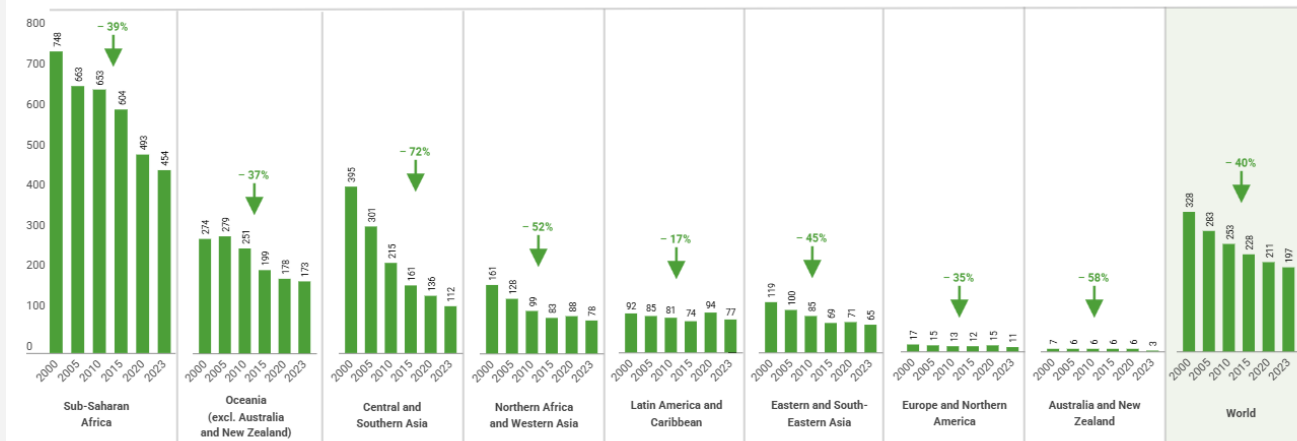
- Dramatic differences by income
- Under-5 mortality improving but uneven
- The gap illustrates how social and economic inequalities result in unequal survival chances.



# Progress & limitations

- Gains since 2000, but slowing and uneven progress
- Maternal mortality reduced by 40% since 2000
- **Key message:** Progress will require not only technological advances but also stronger attention to **social justice** and **equitable access**.

Maternal mortality ratio by region, 2000–2023 (deaths per 100,000 live births)

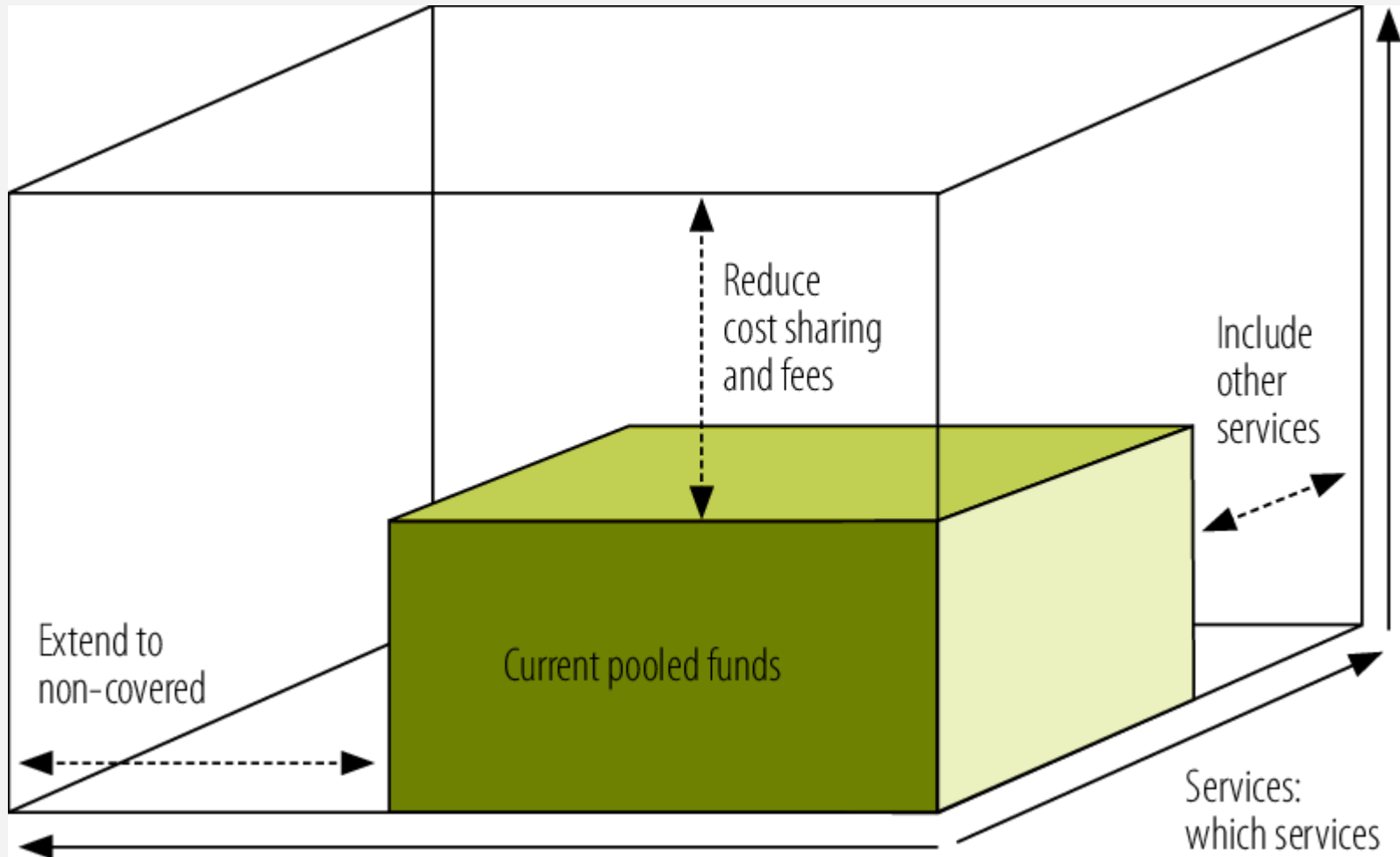


# Universal Health Coverage (UHC)

- A core target of SDG 3 Good Health and Well-being.
- All people should have access to needed promotive, preventive, curative, rehabilitative, and palliative health services.
- Access should be high **quality, timely, and affordable**.
- UHC means receiving care without financial hardship or risk of impoverishment.

**Key message:** UHC is not only about expanding healthcare access, but about **balancing access, affordability, equity, and sustainability within health systems.**

## Three dimensions of UHC (WHO "Cube")



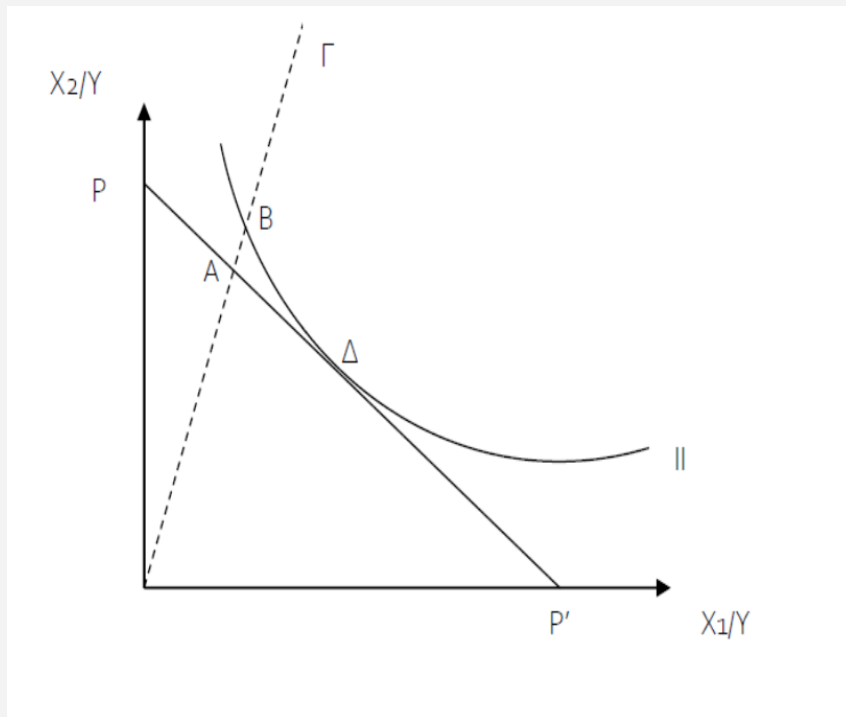
# Efficiency as a health system goal

As health resources are limited, efficiency asks: *How can we achieve the greatest health benefit with available resources?*

Two dimensions:

1. **Technical efficiency:** Producing maximum outputs from given inputs (e.g. treating more patients with same budget).
2. **Allocative efficiency:** Allocating resources where they generate greatest benefit (e.g. prevention vs expensive low-value treatment).

# Classic equity–efficiency trade-off



$\Delta$  represents the Pareto-efficient allocation, where **efficiency is maximized**.

Points  $A$  and  $B$  show alternative distributions that may place greater weight on equity, but may move the system away from the efficiency optimum.

The central **policy challenge** is balancing fairness (equity) with optimal resource use (efficiency).

## Equity and efficiency: Complementarities

Equity and efficiency are often presented as **competing goals**, but in practice they can be both **complementary**, depending on the policy context.

### When they reinforce each other

- **Primary healthcare investment:** Improves access for underserved populations while reducing costly hospitalizations.
- **Vaccination and prevention:** Promote equitable population coverage and generate high health returns at low cost.
- **Reducing waste and low-value care:** Can improve efficiency while freeing resources for more equitable distribution.

## Equity and efficiency: Trade-offs

Equity and efficiency are not always in opposition—many policies can advance both. But when resources are scarce, tensions emerge, and those trade-offs lie at the heart of health policy.

### When trade-offs arise

- **High-cost treatments for a few:** May support equity for vulnerable groups but raise efficiency concerns.
- **Maintaining services in remote or rural areas:** Improves fairness in access, though often at higher per capita cost.
- **Universal coverage expansion under limited budgets:** Requires difficult choices about priorities and opportunity costs.

# Examples of equity–efficiency trade-offs

**Opportunity cost:** Resources spent in one area are unavailable elsewhere.

## ➤ Rural hospitals

- Equitable access
- May be less technically efficient

## ➤ Rare disease treatments

- Equity may support coverage
- Efficiency may question cost-effectiveness

## ➤ Universal coverage expansion

- Promotes fairness
- Requires difficult resource choices.

# Ethical perspectives on priority setting

- Should health systems maximize total benefit, or give priority to those with greatest need?
- Priority setting in health policy is not only technical—it is also ethical.
- Different principles can lead to different policy choices.

## 1. Utilitarian perspective:

- Seeks to maximize total health gain
- Emphasizes efficiency and cost-effectiveness
- May favor interventions benefiting the greatest number

## 2. Egalitarian / Rawlsian perspective:

- Prioritizes fairness and protecting the worst off
- Emphasizes equity and reducing disadvantage
- May justify allocating resources to vulnerable groups, even at higher cost

## Case example: Greek hospital-health centers

### Key findings:

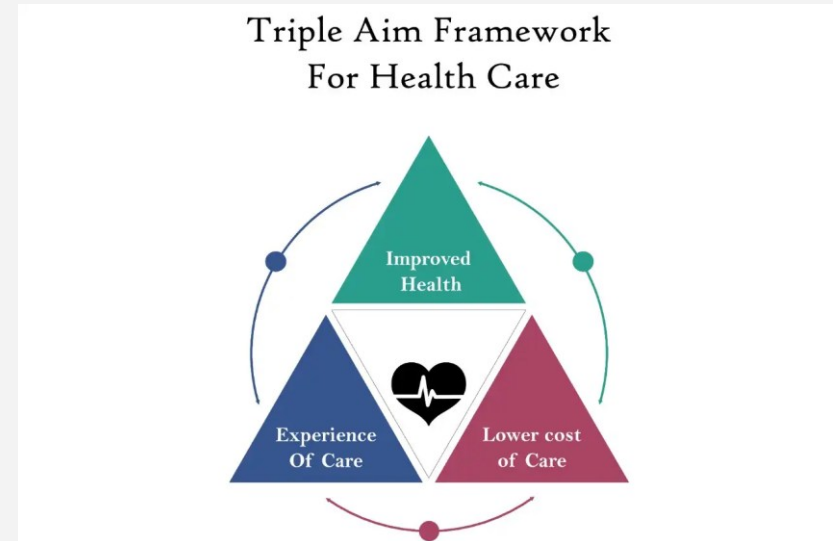
- The study used Data Envelopment Analysis (DEA) to assess the technical efficiency of **17 Greek hospital-health centers** serving remote rural and island populations.
- The facilities showed notable technical inefficiency.
- More remote units, especially those on small islands, tended to be less efficient, raising the **policy question** of whether improving efficiency could undermine equitable access for isolated populations.
- Units providing preventive services were more efficient, highlighting their broader value in **primary care and public health, not just hospital care.**

**Source:** Kontodimopoulos, Nanos & Niakas (2006), *Health Policy*, 76(1), 49–57.

# Can equity and efficiency be reconciled?

## Possible through:

- Primary healthcare
- Prevention
- Value-based care
- Reducing waste
- Better priority-setting



The **Triple Aim Framework** seeks to **improve health system performance** by pursuing three goals simultaneously: 1) improving population health, 2) enhancing the quality and experience of care, and 3) controlling costs.

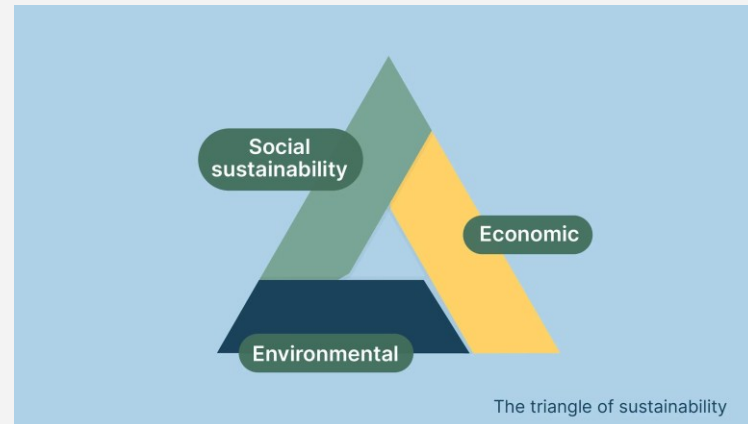
It shows that **equity and efficiency need not always be in conflict**, but can be advanced together through integrated, sustainable health system design.

# Sustainable health systems

## A sustainable health system must achieve:

- **Equity:** Fair access to quality healthcare based on need
- **Efficiency:** Optimal use of scarce resources to maximize health gains
- **Sustainability:** Long-term resilience, financial viability, and adaptability

*.....the challenge is not choosing among these goals, but governing the trade-offs between them.....*



# Climate change as a health equity challenge

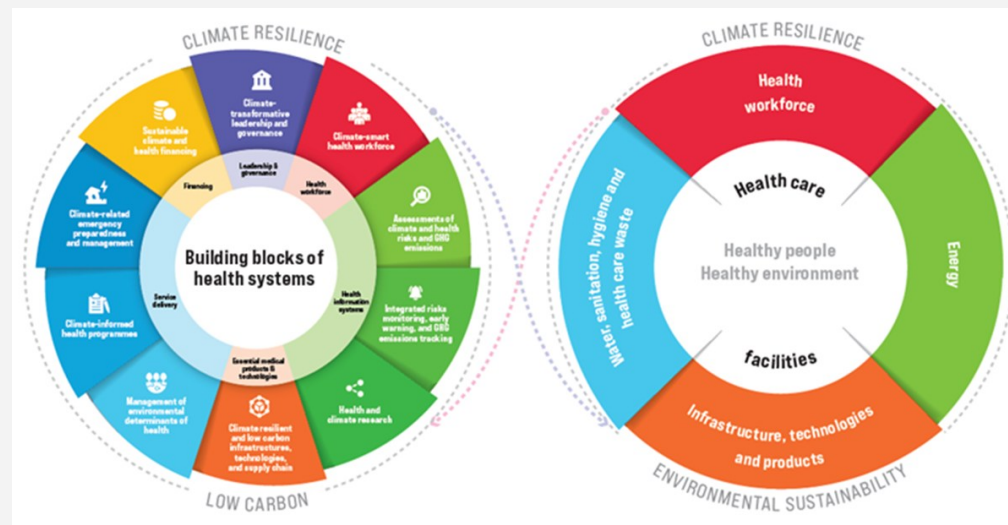
## Why climate matters

- Climate change increases health risks and demand for care through heat related illnesses, infectious diseases, etc.
- Vulnerable populations are affected first and most severely.
- Extreme weather can disrupt health services and critical infrastructure.

**Key message:** Climate change links SDG 3 and SDG 10 because environmental risks are unequally distributed.

# Building climate-resilient and sustainable health systems

- Sustainable health systems must integrate climate resilience, low-carbon service delivery, and core health system functions.
- Climate-resilient systems can **continue delivering essential services** during floods, heatwaves, fires, or pandemics.
- At the same time, low-carbon health systems aim to reduce emissions through sustainable procurement, energy efficiency, and waste reduction.



## Policy priorities for climate-resilient health systems

**Policy responses include strengthening infrastructure, improving preparedness, investing in prevention, and prioritizing vulnerable communities.**

- Climate-resilient systems maintain care during shocks.
- Low-carbon systems reduce healthcare's environmental footprint.
- Equity-focused adaptation prioritizes vulnerable communities.
- Prevention and preparedness can strengthen resilience and efficiency.

## Why health inequality is also social inequality

Health inequality is not only a health-system failure, but also a **social inequality outcome**.

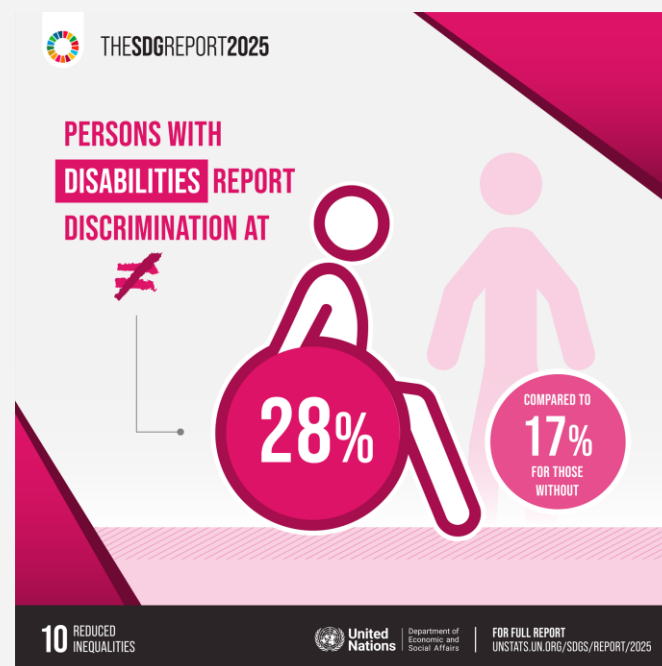
- Health outcomes are shaped by income, education, gender, ethnicity, geography, and migration status.
- Unequal societies produce unequal exposure to risk and unequal access to protection.
- **SDG 10** matters because it targets the structural conditions that produce health inequities.

# SDG 10 in health systems: Who is left behind?

Equity requires identifying **whose needs are systematically underserved.**

## Groups often facing unequal access:

- Low-income households
- Rural and remote populations
- Migrants and refugees
- Ethnic minorities
- Women and girls
- People with disabilities
- Older adults



# Pathways from inequality to poor health

## Inequality affects health through:

- Lower income and financial insecurity
- Poor housing and environmental exposure
- Lower health literacy and education
- Discrimination and exclusion
- Reduced political voice and service access

**Social inequality → Unequal living conditions → Unequal access to care → Unequal health outcomes**

## Policies that link SDG 3 and SDG 10

### Advancing health and reducing inequality

- **Universal Health Coverage with financial protection:** Access to essential care without catastrophic costs.
- **Progressive health financing:** Contributions based on ability to pay.
- **Primary healthcare in underserved areas:** Care closer to rural, remote, and marginalized groups.
- **Inclusive and culturally appropriate services:** Reducing barriers linked to gender, ethnicity, migration, disability, and poverty.
- **Monitoring inequalities:** Track outcomes by income, geography, gender, and social group.

**Thank You**  
For Your Attention!

Any Questions

